

PETITION TO AMEND THE FULTON COUNTY ZONING RESOLUTION

2005Z – 0109

COMMUNITY ZONING BOARD PUBLIC HEARINGS

October 18, 2005 (SOUTH) – DEFERRED FOR THIRTY (30) DAYS

November 15, 2005 (NORTH) - DENIAL

BOARD OF COMMISSIONERS PUBLIC HEARING

December 7, 2005 – DEFERRED UNTIL FEBRUARY 1, 2006

February 1, 2006 - APPROVED

***STAFF
RECOMMENDATION***

DEFERRAL FOR SIXTY (60) DAYS

PROPOSED AMENDMENTS

Part 1 – To amend Article 4, Section 4.9, of the Fulton County Zoning Ordinance to add provisions for a Night Sky Ordinance.

Part 2 – To amend Article 3, Definitions, of the Fulton County Zoning Ordinance to add and revise definitions which pertain to lighting consistent with the adoption of the Night Sky Ordinance.

Part 1

To amend Article 4, Section 4.9 of the Fulton County Zoning Ordinance to add provisions for a Night Sky Ordinance.

4.9. **OUTDOOR LIGHTING.**

~~Sources of exterior illumination shall be directed away from adjoining residences and shall not exceed 1.2 footcandles along an adjoining residential property line. Outdoor lighting of recreation facilities in or adjoining residential districts or uses shall be used only between dusk and 11:00 P.M.~~

4.9 **NIGHT SKY ORDINANCE.**

4.9.1. **PURPOSE AND INTENT.** The purpose and intent of this ordinance is to provide a regulatory strategy for outdoor lighting that will permit reasonable uses of outdoor lighting for nighttime safety, utility, security, productivity, enjoyment and commerce; curtail and reverse the degradation of the nighttime visual environment and the night sky; preserve the dark night sky for astronomy; minimize glare, obtrusive light and artificial sky glow by limiting outdoor lighting that is misdirected, excessive or unnecessary; conserve energy and resources to the greatest extent possible; and help to protect the natural environment from the damaging effects of night lighting from man-made sources.

4.9.2. **CONFORMANCE WITH APPLICABLE CODES.** All outdoor illuminating devices shall be installed in conformance with the provisions of this ordinance, the Building Code and the Electrical Code as applicable and under appropriate permit and inspection. Where there is conflict between the provisions of this ordinance and other regulations, the most restrictive provision shall prevail.

4.9.3. **APPLICABILITY.** For all land uses, developments and buildings that require a permit, all outdoor lighting fixtures shall meet the requirements of this ordinance. All building additions or modifications of twenty-five (25) percent or more in terms of additional dwelling units, gross floor area, or parking spaces, either with a single addition or with cumulative additions subsequent to the effective date of this provision, shall invoke the requirements of this ordinance for the entire property, including previously installed and any new outdoor lighting. Cumulative modification or replacement of outdoor lighting constituting sixty (60) percent or more of the permitted lumens for the parcel, no matter the actual amount of lighting already on a non-conforming site, shall constitute a major addition for purposes of this section.

A. **Minor Additions.** Additions or modifications of less than twenty-five (25) percent to existing uses, as defined in Section (a) above, and that require a permit, shall require the submission of a complete inventory and site plan detailing all existing and any proposed new outdoor lighting. Any new lighting on the site shall meet

the requirements of this ordinance with regard to shielding and lamp type.

B. Exempt Lighting. The following luminaries and lighting systems are exempt from these requirements:

1. Lighting for pools used at night.
2. Underwater lighting used for the illumination of swimming pools and fountains;
3. Temporary holiday lighting;
4. Lighting required and regulated by the Federal Aviation Administration, or other federal, state or local agency;
5. Emergency lighting used by police, fire, or medical personnel, or at their direction;
6. All outdoor light fixtures producing light directly from the combustion of fossil fuels, such as kerosene and gasoline;
7. Security lighting controlled and activated by a motion sensor device for a duration of 10 minutes or less.

C. Prohibited Lighting. The following lighting systems are prohibited:

1. Aerial lasers;
2. Searchlight style lights;
3. Other very intense lighting, defined as having a light source exceeding 200,000 lumens or intensity in any direction of 2 million candelas or more;
4. Mercury vapor lamps;
5. Neon lighting.

4.9.4. **OUTDOOR LIGHTING STANDARDS**. All nonexempt outdoor lighting fixtures shall meet the following criteria:

- A. Shall be full cutoff placed so as to allow no light above the horizontal as measured at the luminaire, except as herein noted in this ordinance (as in the case of period fixtures, cutoff fixtures may be used).
- B. Shall be located, aimed or shielded so as to minimize glare and stray light trespassing across property boundaries and into the public right of way in accordance with the following standards:

At Property Lines Including Rights-of-Way	Maximum Foot-candles
At property line abutting a residential or an agricultural use	1.0
At property line abutting an office or institutional use	1.5
At property line abutting a commercial or industrial use	1.5

Off-Street Parking Lots	Minimum Foot-candles	Average Foot-candles	Maximum Foot-candles
Residential areas	0.5	2.0	4.0
Office-professional areas	1.0	3.0	6.0
Commercial areas	2.0	6.0	12.0
Light industrial areas	1.0	4.0	8.0

- C. Flood or spot lamps must be positioned no higher than 45 degrees above straight down (half-way between the vertical and the horizontal) when the source is visible from any off-site residential property or public roadway.
- D. All light fixtures that are required to be shielded shall be installed and maintained in such a manner that the shielding is effective as described herein for fully shielded fixtures.
- E. Multi use development lighting must conform to the standards of its respective use.
- F. Illumination levels are measured from any height and orientation of the measuring device at any location along the property line, except the lighting of parking lots shall be measured at grade with the meter sensor held horizontally on the surface.

4.9.5. **SPECIAL USES.** All lighting not directly associated with the special use areas designated below shall conform to the lighting standards described in this ordinance.

- A. **Outdoor Sports, Recreation Fields, or Performance Areas.** Lighting of outdoor recreational facilities (public or private), such as, but not limited to, outdoor athletic fields, courts, tracks, special event or show areas shall meet the following requirements:
 - 1. Facilities designed for municipal leagues, elementary to high school levels of play and training fields for recreational or social levels of play, college play, semi-professional, professional or national levels of play shall utilize luminaries with minimal uplight consistent with the illumination

constraints of the design. Where fully shielded fixtures are not utilized, acceptable luminaries shall include those which:

- a. Are provided with internal and/or external glare control louvers or lenses, and are installed so as to minimize upright and offsite light trespass and glare; and
 - b. Are installed and maintained so as to avoid aiming no more than 2.5 times the mounting height.
2. Illuminance. All lighting installations shall be designed to achieve the illuminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA RP-6).
 3. Off Site Spill. The installation shall also limit off-site spill (off the parcel containing the sports facility) to the maximum extent possible consistent with the illumination constraints of the design. For all recreational or social levels of play and training fields, as well as, performance areas, illumination levels shall not exceed 1.5 foot-candles at any location along any non-residential property line, and 0.5 foot-candles at any location along any residential property line.
 4. Curfew. All events shall be scheduled so as to complete all activity no later than 10:30 p.m. Illumination of the playing field, court or track shall be permitted after the curfew only to conclude a scheduled event that was unable to conclude before the curfew due to unusual circumstances. Field lighting for these facilities shall be turned off within 30 minutes after the last event of the night.
 5. Setback. All light poles shall be set back the greater of fifty feet or one foot for every foot in height from any residential property line or right-of-way.
 6. This Section 4.9.5 shall not be construed to overrule any standards established in any Overlay Improvement District or as established in Section 19.4.

B. Service Station Canopies and Parking Structures.

1. All luminaries mounted on or recessed into the lower surface of service station canopies and parking structures shall be fully shielded and utilize flat lenses.

2. The total light output of luminaries mounted on the lower surface, or recessed into the lower surface of the canopy, and any lighting within signage or illuminated panels over the pumps, shall not exceed 50 foot-candles.
3. The total light output of illuminated areas of a service station other than as detailed in 2. above shall not exceed 15 foot-candles.
4. Illuminance levels for the interior of parking structures, where interior lighting is visible from outside the structure, shall conform to the IESNA recommendation (RP-20).
5. Lights shall not be mounted on the top or sides of a canopy and the sides of a canopy shall not be illuminated.

C. Security Lighting.

1. Security lighting shall be directed toward the targeted area.
2. Sensor activated lighting must be located in such a manner as to prevent direct glare and lighting into properties of others or into a public right-of-way, and the light shall not be triggered by activity off the property.

D. Pedestrian Path Lighting.

1. Lighting post shall not exceed 16 feet from the finished grade.

E. Architectural Accent Lighting.

1. Fixtures used to accent architectural features, materials, colors, style of buildings, landscaping, or art shall be located, aimed and shielded so that light is directed only on those features. Such fixtures shall be aimed or shielded to minimize light spill into the dark night sky in conformance with the luminaire standards.
2. Lighting fixtures shall not generate glare, or direct light beyond the façade onto a neighboring property, streets or into the night sky.

F. Temporary Lighting Permits.

1. Permits for temporary lighting will be granted by the Department if the total output from the luminaries does not exceed 50 foot-candles and the following conditions apply:

- a. The purpose for which the lighting is proposed can be completed within thirty (30) days, except that the permit for a major construction project may extend to completion.
 - b. The proposed lighting is designed in such a manner as to minimize light trespass and glare.
 - c. Permits issued for temporary recreational lighting shall be extinguished by 10:30 p.m.
2. The application for the Temporary Lighting Permit shall include, but not be limited to, the following information:
- a. Name and address of applicant and property owner;
 - b. Location of proposed luminaire(s);
 - c. Date and times for the lighting;
 - d. Type, wattage and lumen output of lamp(s);
 - e. Type and shielding of proposed luminaires;
 - f. Intended use of the lighting;
 - g. Duration of time for requested exemption;
 - h. The nature of the exemption; and
 - i. The means to minimize light trespass and glare.

G. Commercial Parking Areas.

- 1. All lighting fixtures servicing parking lots, except floodlights, shall be cutoff fixtures, directed downward and not toward buildings or other areas.
- 2. The minimum illumination level for a parking lot shall be 0.4 foot-candles at grade level and the ratio of the average illumination to the minimum illumination shall not exceed 4:1.
- 3. Floodlights should be aimed or shielded to minimize uplight.
- 4. Light poles used in parking lots shall not exceed 35 feet in height.

H. Street lights.

- 1. All street light fixtures new, repaired (outside of normal maintenance) or replaced fixtures shall be cutoff.

4.9.6. **VARIANCES.**

- A. Any person may submit an application to the Board of Zoning Appeals for a variance from the provisions of this ordinance. The application should include, but not be limited to, evidence about the following:
 - 1. How the proposed design and appearance of the luminaire are superior;
 - 2. How light trespass and glare will be limited;
 - 3. How the proposed solution will provide a benefit without negative impact on the health, safety, or welfare of the community.
- B. The application may include the recommended practices of the Illuminating Engineering Society of North America, a professional engineer, or other authority on outdoor lighting.

4.9.7. **SUBMISSION OF PLANS AND EVIDENCE OF COMPLIANCE.** The applicant for any permit required by any provision of the laws of Fulton County in connection with proposed work involving outdoor lighting fixtures shall submit, as part of the application for permit, evidence that the proposed work will comply with this ordinance. Even should no other such permit be required, the installation or modification, except for routine servicing and same-type lamp replacement of any exterior lighting, shall require submission of the information described below. The submission shall contain but shall not necessarily be limited to the following, all or part of which may be part or in addition to the information required elsewhere in the laws of Fulton County upon application for the required permit:

- A. Plans indicating the location on the premises of each illuminating device, both proposed and any already existing on the site.
- B. Description of all illuminating devices, fixtures, lamps, supports, reflectors, both proposed and existing. The description may include, but is not limited to catalog cuts and illustrations by manufacturers.
- C. Photometric data, such as that furnished by manufacturers or similar, showing the angle of cut off of light emissions.

Additional Submission. The above required plans, descriptions and data shall be sufficiently complete to enable the Department to readily determine whether compliance with the requirements of this ordinance will be secured. If such plans, descriptions and data cannot enable this ready determination, the applicant shall additionally submit as evidence of compliance to enable such determination such certified reports of tests as will do so provided that these tests shall have been performed and certified by a recognized

testing laboratory.

Subdivision Plats. All new subdivided properties shall submit information as described herein for installed street lights and other common or public area outdoor lighting.

Certification. For all projects, certification that the lighting as installed, conforms to the approved plans shall be provided by an illumination engineer/professional before the Certificate of Occupancy is issued. Until this certification is submitted, approval for use by the issuance of the Certificate of Occupancy shall not be issued.

Part 2

To amend Article 3, Definitions, of the Fulton County Zoning Ordinance to add and revise definitions which pertain to lighting consistent with the adoption of the Night Sky Ordinance.

Cutoff Fixture. A luminaire light distribution where the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at or above a vertical angle of 90 degrees above nadir, and 100 (10 percent) at or above a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

Flood Lamp. A form of lighting designed to direct its output in a specific direction with a reflector formed from the glass envelope of the lamp itself. Such lamps are so designated by the manufacturers and are typically used in residential outdoor area lighting.

~~Light, Flood or Spot. Any light fixture or lamp that incorporates a reflector or a refractor to concentrate the light output into a directed beam in a particular direction. (Added 02/04/04)~~

Flood Light. A form of lighting designed to direct its output in a diffuse, more or less specific direction, with reflecting or refracting elements located external to the lamp.

Foot-candle. A unit of measure for illuminance on a surface that is everywhere one foot from a point source of light of one candle, and equal to one lumen per square foot of area.

~~Cutoff, full. A luminaire light distribution where zero emission occurs at all angles of 90 degrees or greater above nadir, and the emission does not exceed 10 percent of total lamp lumens at a vertical angle of 80 degrees above nadir. (Added 05/05/04)~~

Full Cutoff. A luminaire light distribution where zero candela intensity occurs at or above an angle of 90 degrees above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at or above a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

Full Cutoff Fixture. An outdoor light fixture shielded or constructed in such a manner that it emits no light above the horizontal plane of the fixture.

~~Glare. Light emitting from a luminaire with an intensity great enough to reduce a viewer's ability to see and in extreme cases causing momentary blindness. (Added 02/04/04)~~

Glare. The sensation produced within the visual field by luminance that is sufficiently greater than the luminance to which the eyes are adapted, causing annoyance, discomfort, or loss in visual performance and visibility.

~~IESNA. Illuminating Engineering Society of North America. The recognized technical authority on illumination, founded in 1906. The IESNA publishes standard practices, which provide guidelines for outdoor lighting. (Added 05/05/04)~~

IESNA. The Illuminating Engineering Society of North America, a non-profit professional organization of lighting specialists that has established recommended design standards for various lighting applications.

Illuminance. The quantity of light arriving at a surface divided by the area of the illuminated surface, measured in foot-candles. Horizontal illuminance applies to a horizontal surface, vertical illuminance applies to a vertical surface. Average illuminance is the level of illuminance over an entire illuminated target area. Maximum illuminance is the highest level of illuminance on any point within the entire area; minimum illuminance is the lowest level of illuminance on any point within the entire area.

Illuminance Levels. Illuminance levels and foot candles noted in this ordinance mean the maintained illuminance levels; the illuminance levels occurring just prior to lamp replacement and luminaire cleaning. The average illuminance level applies to an entire illuminated target area. Minimum and maximum illuminance levels apply to small areas within the entire illuminated target area. Unless otherwise noted, illuminance levels refer to horizontal illuminance levels.

Spill Light. The light that illuminates surfaces beyond the intended area of illumination caused by the uncontrolled direct light component from the luminaires.

~~Light Trespass. The shining of light produced by a luminaire beyond the boundaries of the property on which it is located. (Added 02/04/04)~~

Trespass Light. The off site spill light that illuminates beyond the property boundaries in which the light fixture is installed, where it is neither wanted nor needed.

~~Lumen. A unit of luminous flux. One footcandle is one lumen per square foot. For the purposes of this Ordinance, the lumen output values shall be the initial lumen output ratings of a lamp. (Added 02/04/04)~~

APPENDIX

Initiated by: On September 7, 2005, the Board of Commissioners approved a Resolution directing the Department of Environment and Community Development to analyze and process the proposed Night Sky Protection Ordinance, to include review at both the north Fulton and south Fulton meetings of the Community Zoning Board, with the Ordinances to be presented for action by the Board of Commissioners no later than December 7, 2005. (Pitts)

A motion was made by Commission Chair Handel and seconded by Commissioner Pitts for the Board to receive by December 7, 2005, a Night Sky Ordinance that has gone through the proper approval channels.

The motion carried by a vote of 6-0-0. Commission Chair Handel, Vice Chair Darnell, and Commissioners Pitts, Riley, Boxill, and Edwards voted yes. Commissioner Lowe did not vote.

Summary:

1. Fulton County has little regulation of site lighting.
2. With the development and adoption of the Zoning Overlay Districts, lighting standards have developed to include pedestrian lighting for sidewalks and to require fixtures which focus the light and eliminate spill over onto adjacent property lines.
3. The “dark sky” movement was initiated by astronomers who wanted to reduce light to be able to gaze at stars. Arizona and California are states which have the most local adoption of dark sky ordinances.
4. These ordinances are designed to reduce glare for drivers, minimize light trespass and reduce excess lighting in urban areas where residences are adjacent to commercial areas.
5. These ordinances appeal to people with an interest in conservation, reducing energy use and avoiding the future need to build more power plants.
6. There are concerns that excess lighting impacts human health.

Impact: This amendment applies to new development and re-development and applies at the time a land disturbance permit application is filed. This amendment does not apply to existing lighting sources. The types of luminaires (lighting fixtures), which would be required by this ordinance, are not more expensive than the existing luminaires.

Other Metro Area Jurisdictions: Cherokee County is the only other metro county with a dark sky ordinance. All other jurisdictions in the Metro area include minimal lighting regulation in their zoning ordinances.

Issues:

1. The Birmingham Hopewell Alliance (BHA) wants the recreational field standards to be removed from the amendment. They mistakenly believe that, if deleted, all recreational facilities will be prohibited from being illuminated.
2. This ordinance establishes lighting standards. It does not establish the places which can be illuminated, which is determined by the general Zoning Resolution.
3. Article 19.3 establishes an administrative process for the approval of public and private recreational courts and swimming pools. They are allowed to be illuminated.
4. Article 19.4 establishes a public comment process (use permit) for the consideration of amphitheaters and recreational fields.
 - a. Article 19.4.36 for recreational fields states that “The hours of operation shall be limited to daylight hours when said facility is located adjacent to residential districts and/or AG-1 districts used for single family.”
 - b. Article 19.4.6 for amphitheaters states that “The hours of operation of the facility shall be limited from 8:00 a.m. to 11:00 p.m. when adjacent to residential districts and/or AG-1 districts used for single family.”
5. Even if a recreation field is not used at night, they are still allowed to light their site for security purposes. In addition, there are other outdoor uses which are allowed to be illuminated.
6. If the Night Sky Ordinance does not include a provision for recreational fields, then they will not be required to meet the Night Sky standards.