



MEMORANDUM

Office of the City Attorney

LEGISLATIVE ITEM NO. 000516

Phone: 334-5011/Fax 334-2229
Box 46

TO: Mayor and City Commission

DATE: January 28, 2002

FROM: City Attorney

**CITY ATTORNEY
FIRST READING**

SUBJECT: Ordinance No. 0-01-34, Petition No. 147TCH-00PB
An ordinance of the City of Gainesville, Florida, relating to outdoor lighting; Providing for Intent and Purpose; amending Section 30-23(c) of the Land Development Code by adding definitions; amending Subsection 30-160(d)(33) of the Land Development Code to require a photometric plan be included as part of a preliminary development plan; amending Subsection 30-330(a)(4) of the Land Development Code setting requirements for lighting of off-street parking facilities; amending Section 30-345 of the Land Development Code setting general performance standards on lighting; creating and adding subsection 30-93(e) to the Land Development Code establishing lighting requirements for gasoline and alternative fuel service stations; creating and adding Section 30-345.1 to the Land Development Code, providing for nonconforming luminaires and a schedule for compliance; providing directions to the codifier; providing a severability clause; providing a repealing clause; and providing an immediate effective date.

Recommendation: The City Commission adopt the proposed ordinance.

COMMUNITY DEVELOPMENT STAFF REPORT

In recent years, lighting intensity has become an issue in the City of Gainesville, particularly in regards to the lighting of parking lots, gas stations and light trespass onto adjacent properties. The proposed ordinance includes more specific and enforceable standards related to site plan submittal requirements, lighting intensity levels for off street parking facilities, general performance standards related to glare, light trespass, exterior lighting, outdoor recreation and light fixture height, and specific requirements for gas stations. Many of the proposed changes are based on Illuminating Engineering Society of North America (IESNA) standards, a renowned organization in the lighting industry which maintains standards on state of the art technology and up to date research and recommendations for various lighting scenarios.

The public hearing for this petition was held at the May 29, 2000 City Commission meeting, and was approved with a 5-0 vote. Since the approval several changes were made and are included in the proposed ordinance. Some of those changes were for clarification purposes. The more substantial changes include the addition of two definitions in Section 30-23 for "luminaire" and

"Illuminating Engineering Society of North America". Illustrations were added in Section 30-330 to illustrate a "full cut-off fixture" and in Section 30-93 to illustrate "gas station canopy lighting". Additionally, a new section 30-345.1 was created and revised related to nonconforming luminaires.

CITY ATTORNEY MEMORANDUM

The City Commission, at its meeting of May 29, 2001, authorized the city attorney's office to prepare and advertise the necessary ordinance amending the Land Development Code of the City of Gainesville.

Prepared and Submitted by:



Marion J. Radson, City Attorney

MJR/afm

Attachment

ORDINANCE NO. 0-01-34

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33

An ordinance of the City of Gainesville, Florida, relating to outdoor lighting; Providing for Intent and Purpose; amending Section 30-23(c) of the Land Development Code by adding definitions; amending Subsection 30-160(d)(33) of the Land Development Code to require a photometric plan be included as part of a preliminary development plan; amending Subsection 30-330(a)(4) of the Land Development Code setting requirements for lighting of off-street parking facilities; amending Section 30-345 of the Land Development Code setting general performance standards on lighting; creating and adding subsection 30-93(e) to the Land Development Code establishing lighting requirements for gasoline and alternative fuel service stations; creating and adding Section 30-345.1 to the Land Development Code, providing for nonconforming luminaires and a schedule for compliance; providing directions to the codifier; providing a severability clause; providing a repealing clause; and providing an immediate effective date.

WHEREAS, the City Plan Board authorized the publication of notice of a Public Hearing that the text of the Land Development Code of the City of Gainesville, Florida, be amended; and

WHEREAS, notice was given and publication made as required by law and a Public Hearing was then held by the City Plan Board on March 22, 2001; and

WHEREAS, notice was given and publication made of a Public Hearing, which was then held by the City Commission on May 29, 2001; and

WHEREAS, at least 10 days notice has been given prior to first reading by publication in a newspaper of general circulation notifying the public of this proposed ordinance and of a Public Hearing to be held in the City Commission Auditorium, City Hall, City of Gainesville; and

1 WHEREAS, the Public Hearings were held pursuant to the published notice
2 described at which hearings the parties in interest and all others had an opportunity to be
3 and were, in fact, heard; and

4 **NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION**
5 **OF THE CITY OF GAINESVILLE, FLORIDA:**

6 **Section 1. Intent and Purpose.** It is the intent and purpose of this ordinance to
7 encourage lighting practices and systems that will minimize glare, light trespass, and light
8 pollution; conserve energy and resources while maintaining nighttime safety, utility,
9 security and productivity; and curtail the degradation of the nighttime visual environment.

10 **Section 2.** Subsection (c) of Section 30-23, Land Development Code, is amended
11 by creating and adding definitions, as follows:

12 Luminaire means a complete lighting unit consisting of a lamp or lamps and
13 ballasting (when applicable) together with the parts designed to distribute the light, to
14 position and protect the lamps, and to connect the lamps to the power supply.

15 Illuminating Engineering Society of North America (IESNA) means the
16 recognized technical authority on illumination, whose mission is to advance knowledge
17 and disseminate information for the improvement of the lighted environment to the
18 benefit of society.

19 **Section 3.** Subsection 30-160(d)(33), Land Development Code, is amended to
20 read as follows:

21 **Sec. 30-160. Submittal requirements.**

1 (d) *Preliminary development plan.* Each preliminary development plan shall include
2 the following:

3 (33) A photometric plan. For all development plans requiring development plan
4 review by a reviewing board, the plan shall be certified by a registered
5 architect or engineer, or lighting professional holding a current LC (Lighting
6 Certification) from the National Council on Qualifications for the Lighting
7 Profession (NCQLP), as providing illumination in accordance with the
8 applicable standards set forth in sections 30-330(a)(4) and 30-345(a)(9) and
9 (10). For development plans requiring staff review only, the city manager or
10 designee shall determine whether such a lighting plan is required. Plans
11 shall indicate the location, height and types of lights (manufacturer's catalog
12 cut, including make and model numbers and glare reduction/control
13 devices), footcandle grid to illustrate light levels required, uniformity ratio,
14 lamp wattage, shades, deflectors, beam direction, luminous area for each
15 source of light and a statement of the proposed hours when the luminaires
16 will be on and when they will be extinguished. A lighting plan which
17 illustrates how the lighting systems function in relationship to landscaping,
18 signage, adjacent developments, pedestrian and vehicular circulation.

19 **Section 4.** Subsection 30-330(a)(4), Land Development Code, is amended to read
20 as follows:

21 **Sec. 30-330. Design requirements for vehicle parking.**

1 (a) *Off-street parking.* Off-street parking, including public parking facilities, shall be
2 designed, constructed and maintained in accordance with the following standards and
3 regulations:

4 (4) All off-street parking facilities shall be continuously lighted after dark
5 throughout the hours that they are in use by the public. Such lighting shall be designed to
6 maintain an average horizontal illuminance not to exceed 2.5 footcandles, and a
7 minimum horizontal illuminance of 0.5 footcandles ~~not exceed an intensity of five~~
8 ~~footeandles.~~ The uniformity ratio (ratio of average to minimum illuminance) shall be no
9 greater than 5:1, and the maximum to minimum uniformity ratio shall be no greater than
10 15:1. Multiple-family dwellings must provide parking area lighting sufficient to light the
11 area for pedestrians entering and exiting the parking area. All ~~nonresidential~~
12 ~~development must~~ other uses and development, shall, at a minimum, meet the standards
13 ~~listed~~ provided in the “IESNA Lighting Handbook: Recommended Maintained
14 Illuminances for Open and Covered Parking Facilities, Latest Edition (hereinafter
15 IESNA)” for pedestrian safety. ~~Sources of light, including bulbs and tubes and all~~
16 ~~reflecting surfaces, shall be hooded or shielded so as not to create a nuisance across lot~~
17 ~~lines.~~ All lighting fixtures serving parking lots shall be full cut-off fixtures as defined by
18 IESNA. A photometric plan shall be provided in compliance with section 30-160(d).
19 Parking lot lighting locations shall not be in conflict with required trees or any existing
20 trees required to remain on the property. The maximum height of fixtures shall not
21 exceed 30 feet, except as regulated by an adopted special area plan or other applicable
22 regulations.

1 (see Exhibit "A" attached hereto and made a part hereof as if set forth in full)

2 Figure 1. Full Cut-Off Fixture

3 ~~Lighting shall be located on site plans and shall not be in conflict with required trees.~~

4 Transformer boxes or utility poles for security lighting should not be located within
5 required parking lot landscape islands. Where transformer boxes or utility poles are
6 located within such islands, the island should be designed so the required tree will still
7 have the minimum of 140 square feet.

8 Section 5. Subsection 30-345(a)(9), Land Development Code is amended to read
9 as follows:

10 **Sec. 30-345. General performance standards.**

11 (a) All uses and activities permitted in any zoning district shall conform to the
12 standards of performance described below, and the failure to conform to any of such
13 standards is hereby declared to be a public nuisance and a violation of this code:

14 (9) ~~Glare.~~ Lighting. Any light installation which provides for re-aiming of
15 the fixture shall be aimed in compliance with this section.

16 a. Light trespass and glare. Any development adjacent to a residential use
17 shall not create light trespass of more than 0.5 footcandles measured
18 perpendicularly from the light source at a distance of 25 feet from the property
19 line. Any light trespass onto adjacent non-residential properties shall not exceed
20 1.0 footcandle measured perpendicularly from the light source at a distance of 25
21 feet from the property line. Roadway lighting on public streets is exempt from
22 light trespass requirements. Directional luminaires such as floodlights, spotlights,

D R A F T

10/15/2001

1 sign lights and area lights shall be so installed and aimed that they illuminate only
2 the task intended and that the light they produce does not shine directly onto
3 neighboring properties or roadways. Building facade lighting, sports lighting and
4 other applications using floodlights shall have glare shielding (external or internal
5 shields) to prevent light trespass and light pollution. All lighting shall be so
6 designed, hooded or shielded as to reflect the direct light in such a manner so that
7 no illumination source or glare creates a nuisance to any adjoining property or
8 unreasonably interferes with the lawful use and enjoyment of any adjoining
9 property. ~~Such lighting shall not under any circumstances exceed a maximum~~
10 ~~intensity of 25 footcandles at ground level. However, the maximum light~~
11 ~~intensity may be increased by the city plan board through site plan review, or the~~
12 ~~board of adjustment by special exception if site plan review is not required,~~
13 ~~provided that the applicant establishes that such an increase is reasonably required~~
14 ~~for security purposes for the particular use or activity in question, that the~~
15 ~~increased intensity will not result in a nuisance to adjoining properties, does not~~
16 ~~interfere with the lawful use and enjoyment of property, that necessary screening~~
17 ~~will be erected or exists to reduce the impact of the increased intensity on~~
18 ~~adjoining properties.~~

19 b. Exterior lighting. Lighting which is provided for the security of areas such
20 as, but not limited to, building entrances, stairways, ramps and main walkways or
21 for a permitted outdoor use of land (such as ball parks) shall not under any
22 circumstances exceed a maximum average maintained illumination of 25

1 footcandles at ground level, and uniformity ratio of 6:1. Exterior wall-mounted
2 lighting shall be full cut-off fixtures (as defined by IESNA). The maximum
3 lighting intensity permitted for the security of the areas described above, for
4 permitted outdoor land uses, or pole heights, other than those located in off-street
5 parking facilities, may be increased by the appropriate reviewing board through
6 site plan review, or the board of adjustment by obtaining a special exception if site
7 plan review is not required, provided that the applicant establishes that such an
8 increase meets the following standards: a. the increase in intensity is reasonably
9 required for security purposes for the use or for conducting the permitted outdoor
10 use; b. the increase in intensity will not result in a nuisance to adjoining properties
11 and does not interfere with the lawful use and enjoyment of adjoining properties;
12 and c. necessary screening will be erected or exists and maintained to reduce the
13 impact of the increase in intensity on adjoining properties.

14 c. *Outdoor recreational lighting.* Lighting installations for outdoor
15 recreational uses (including pole heights) shall be designed in accordance with
16 IESNA standards, as outlined in report number RP-6-88, or any update thereto.

17 d. *Height.* The maximum height of light fixtures, except as otherwise
18 regulated by this section, shall not exceed 30 feet.

19 **Section 5.** Subsection (e) is created and added to Sec. 30-93, Land Development
20 Code, to read as follows:

21 **Sec. 30-93. Gasoline and alternative fuel service stations (GN-554), and food stores**
22 **(MG54) with accessory gasoline and alternative fuel pumps.**

1 (e) Lighting. The requirements for lighting are as follows:

2 (1) Remote areas. Areas on the apron away from the gasoline pump islands,
3 used for parking or vehicle storage, shall be illuminated in accordance with the
4 requirements for parking areas as set forth in Section 30-330(a)(4).

5 (2) Areas around pump islands. Areas within 6 feet of a pump island or under
6 canopies shall be designed to maintain a minimum average horizontal illuminance
7 of at least 2.0 footcandles and a maximum average of no more than 10
8 footcandles. The uniformity ratio (ratio of average to minimum illuminance) shall
9 be no greater than 5:1. The above lighting must be delineated on a photometric
10 plan.

11 (3) Fixtures. Light fixtures mounted on or under canopies shall be full cut-off
12 classification as defined by the IESNA, or recessed so that the lens cover is flush
13 with the bottom surface (ceiling) of the canopy.

14 (See Exhibit "B" attached hereto made a part hereof as if set forth in full.)

15 Figure 1. Canopy Lighting

16 (4) Alternatives. As an alternative or supplement to recessed lights, indirect
17 lighting may be used where light is aimed at the underside of the canopy and
18 reflected back down. In this case the light fixtures must be shielded so that all
19 direct illumination is focused exclusively on the underside of the canopy.

20 (5) Prohibited lights. Lights shall not be mounted on the top or sides of the
21 canopy when not part of a permitted sign, and the sides (fascias) of the canopy
22 shall not be illuminated, unless the illumination is part of a permitted sign.

1 (6) The submittal requirements of Section 30-160(d), Land Development
2 Code shall be met.

3 **Section 7.** A new Section 30-345.1 is created and added to the Land
4 Development Code of the City of Gainesville, as follows:

5 **Sec. 30-345.1 Nonconforming luminaires.**

6 All lamps, light fixtures and lighting systems (hereinafter "luminaires") lawfully
7 in place prior to February 11, 2002, shall be deemed legally nonconforming. However, if
8 cumulatively at any time, 50% or more of the existing outdoor light fixtures are replaced,
9 or number of outdoor light fixtures is increased by 50% or more, then all outdoor light
10 fixtures shall conform to the provisions Section 30-160, Section 30-330, and Section 30-
11 345. A development plan amendment shall be certified by a registered engineer or
12 architect, or lighting professional holding a current L.C. (lighting certificate) from the
13 National Council on Qualifications for the Lighting Profession (NCQLP). Additionally,
14 nonconforming luminaires that direct light toward streets or parking areas that cause glare
15 so as to cause a public nuisance should be either shielded or re-directed within 30 days of
16 notification.

17 **Section 8.** It is the intention of the City Commission that the provisions of
18 Sections 2 through 7 of this ordinance shall become and be made a part of the Code of
19 Ordinances of the City of Gainesville, Florida, and that the Sections and Paragraphs of
20 this ordinance may be renumbered or relettered in order to accomplish such intentions.

21 **Section 9.** If any section, sentence, clause or phrase of this ordinance is held to be
22 invalid or unconstitutional by any court of competent jurisdiction, then said holding shall

D R A F T

10/15/2001

1 in no way affect the validity of the remaining portions of this ordinance.

2 **Section 10.** All ordinances, or parts of ordinances, in conflict herewith are to the
3 extent of such conflict hereby repealed.

4 **Section 11.** This ordinance shall become effective immediately upon final
5 adoption.

6
7 **PASSED AND ADOPTED** this _____ day of _____, 2002.

8
9

10
11

THOMAS D. BUSSING, MAYOR

12
13

14 **ATTEST:**

Approved as to form and legality

15
16

17
18

KURT M. LANNON
CLERK OF THE COMMISSION

MARION J. RADSON
CITY ATTORNEY

19
20

This Ordinance passed on first reading this _____ day of _____, 2002.

21
22

This Ordinance passed on second reading this _____ day of _____,
2002.

Figure 1

Full Cut-Off Fixture

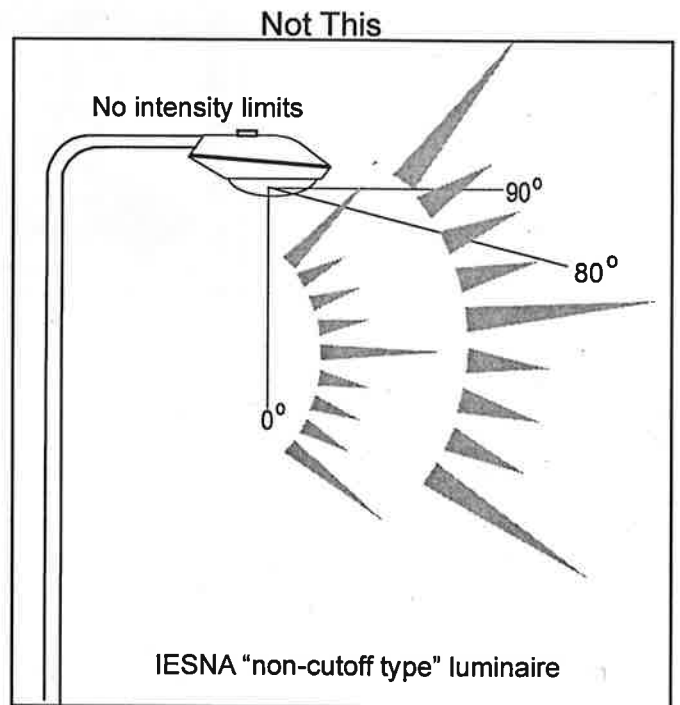
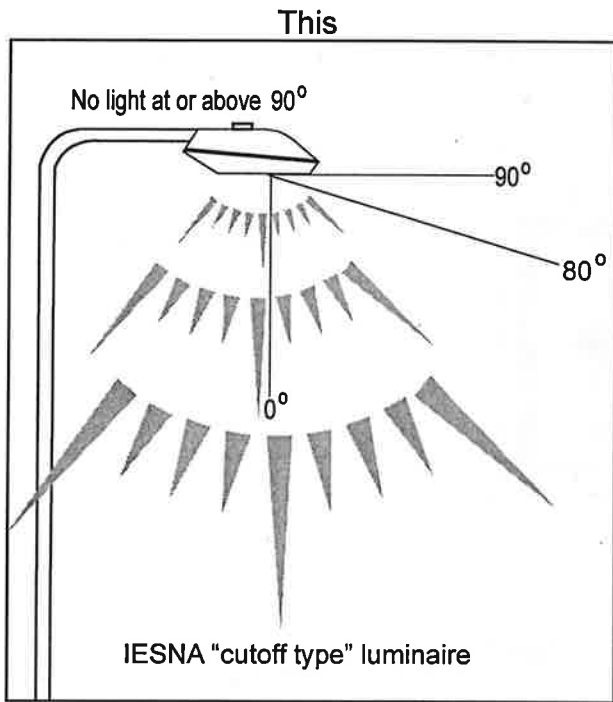
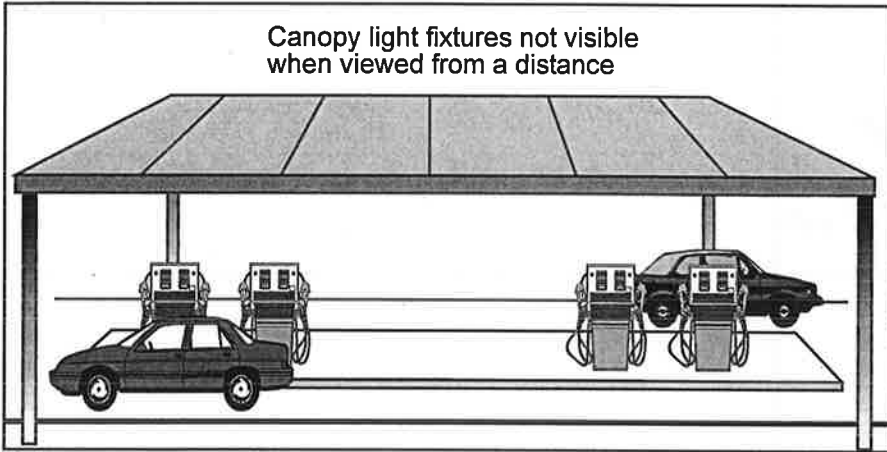


Figure 1 Canopy Lighting

This



Not This

