

**CITY OF HIGHLAND PARK**

**ORDINANCE NO. 004-2018**

**AN ORDINANCE AMENDING SECTIONS 150.202 AND 150.605 OF "THE CITY OF HIGHLAND PARK ZONING ORDINANCE OF 1997", AS AMENDED, REGARDING ILLUMINATION REGULATIONS**

**WHEREAS**, pursuant to Section 150.605 of the “City of Highland Park Zoning Ordinance of 1997,” as amended (***“Zoning Code”***), the City regulates illumination in the various zoning districts of the City; and

**WHEREAS**, the City Council desires to amend Section 150.605 of the Zoning Code, and to add appropriate definitions to Section 150.202 of the Zoning Code, to clarify and modernize the illumination regulations in the Zoning Code (collectively, the ***“Proposed Amendments”***); and

**WHEREAS**, a public hearing by the Plan and Design Commission (***“PDC”***) to consider the Proposed Amendments to the Zoning Code was duly advertised in the Lake County News Sun on December 30, 2016 and held on four dates between January 19, 2016, and May 17, 2016; and

**WHEREAS**, the PDC approved findings of fact in support of the Proposed Amendments on May 17, 2016 (Public Hearing No. 15-09-ZTA-005), in accordance with and pursuant to Section 150.1506 of the Zoning Code; and

**WHEREAS**, the Committee of the Whole of the City Council further considered the Proposed Amendments at meetings held on July 11, 2016, and September 12, 2016; and

**WHEREAS**, the City Council has considered the Proposed Amendments and the recommendation of the PDC, and has determined that adoption of the Proposed Amendments, as set forth in this Ordinance, will serve and be in the best interest of the City and its residents;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF HIGHLAND PARK, LAKE COUNTY, ILLINOIS**, as follows:

**SECTION ONE: RECITALS.** The foregoing recitals are incorporated into, and made a part of, this Ordinance as findings of the City Council.

**SECTION TWO. DEFINITIONS.** Section 150.202, titled “Definitions,” of Article II, titled “Interpretation and Definitions,” of the Zoning Code is hereby amended further to add the following new definitions:

**Additions are bold and double underlined; deletions are struck through.**

**“Section 150.202 Definitions.**

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**B.U.G.: A luminaire classification system that classifies backlight (B), uplight (U) and glare (G), and quantifies brightness in each class by lumens.**

**CORRELATED COLOR TEMPERATURE (CCT): The color temperature of luminaires measured in Kelvin (K).**

**COLOR RENDERING INDEX (CRI): A measurement of the ability of a light source to reveal the colors of various objects faithfully in comparison**

with an ideal or natural light source, measured as a percentage. A CRI of 100% represents perfect standardized daylight.

**LIGHT POLLUTION:** Any adverse effect of artificial light including, but not limited to, glare, light trespass, sky glow, energy waste, compromised safety and security, and impacts on the nocturnal environment.

**LIGHT TRESPASS:** Light that falls beyond the property it is intended to illuminate.

**LUMINAIRE:** A complete lighting unit (fixture), consisting of a lamp, or lamps and ballast(s) (when applicable), together with the parts designed to distribute the light (reflector, lens, diffuser), to position and protect the lamps, and to connect the lamps to the power supply.

**SKY GLOW:** The brightening of the nighttime sky that results from scattering and reflection of artificial light by moisture and dust particles in the atmosphere. Sky glow is caused by light directed or reflected upwards or sideways and reduces one's ability to view the night sky.

**UPLIGHT:** Flux radiated in the hemisphere at or above the horizontal plane.”

**SECTION THREE: LIGHTING.** Section 150.605, titled “Lighting,” of Article VI, titled “Performance Standards,” of the Zoning Code is hereby amended further to read as set forth in **Exhibit A** attached to and, by this reference, made a part of this Ordinance.

**SECTION FOUR: PUBLICATION.** The City Clerk is hereby directed to publish this Ordinance in pamphlet form pursuant to the Statutes of the State of Illinois.

**SECTION FIVE: EFFECTIVE DATE.** This Ordinance will be in full force and effect from and after its passage and approval in the manner provided by law.

**AYES:** Mayor Rotering, Councilmen Stolberg, Stone, Kaufman, Blumberg, Knobel, Holleman

**NAYS:** None

**APPROVED:** January 08, 2018

**ADOPTED AS AMENDED:** January 08, 2018

**PUBLISHED IN PAMPHLET FORM:** January 09, 2018

**ORDINANCE NO. O04-2018**

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Nancy R. Rotering, Mayor

**ATTEST:**

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Ghida S. Neukirch, City Clerk

## EXHIBIT A

### **TEXT OF SECTION 150.605 OF THE ZONING CODE**

#### **Sec. 150.605 Lighting.**

(A) No use in any zoning district shall be operated so as to produce direct sky-reflected glare or direct illumination across the adjacent property line from a visible source of illumination in violation of the following:

**Additions are bold and double underlined;** ~~deletions are struck through.~~

<u>Land Use Category</u>		Maximum Foot-Candle Level at Property Line		Average Foot Candles	Foot-Candle Average / Minimum Uniformity Ratio	Minimum Foot Candles for Parking	Minimum Foot Candles for Walkways	Maximum Watts per Square Foot	Light Source Shielding Requirements	Maximum Light Pole Height from Grade	Maximum Exterior Fixture Height on Principal Structures	Maximum Exterior Fixture Height on Accessory Structures	Maximum Fixture Height in Trees
		<u>Horizontal Brightness Limit</u>	<u>Vertical Brightness Limit (11)</u>										
Low Density (Single Family) Residential Districts	All Lighting	0.5 foot candles within front yard setback. 0.25 foot candles behind front yard setback.	N/A	Not Applicable	Not Applicable	Not Applicable	Not Applicable		>890 lumens per fixture fully shielded when viewed from property line(1)	7’6”	20’	18’	Maximum building height allowed (2)
High Density (Multi-Family) Residential Districts	Parking Lots	0.5 foot candles within front yard setback. 0.25 foot candles behind front yard setback.	N/A	Not to Exceed 1.5	4:1	0.2 foot candles	Not Applicable	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	Full cutoff (5)	16'	Not Applicable	15'	Not Allowed
	All Other Lighting			Not Applicable	4:1 for walkways only	Not Applicable	0.6 foot candles	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	>1800 lumens per fixture partially shielded. >3000 lumens per fixture fully shielded (1)(7). At individual units on upper levels >890 lumens per fixture fully shielded	14'	Not Applicable	15'	Maximum building height allowed (2)
Commercial, Industrial, Public Activity and Health Care Districts	Parking Lots	0.25 foot candles if adjacent residential 1.0 all other times(6)	<u>0.8 foot-candles along any point of the plane of the property line where not adjacent to a residential zone; 0.1 foot-candles along any point of the plane of the property line where adjacent to a residential zone</u>	Not to Exceed 1.5	4:1	0.2 foot candles	Not Applicable	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	Full cutoff, <u>and maximum B.U.G. rating of B2 U0 G2 in residential zoning districts and maximum B.U.G. rating of B3 U0 G3 in all other zoning districts.</u> (5)	22' in B3 & I zone. 16' other zones	Not Applicable	15'	Not Allowed
	All Other Lighting			I.E.S. Standards Shall Apply	I.E.S. Standards Shall Apply	Not Applicable	0.6 foot candles	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	>1800 lumens per fixture partially shielded. >3000 lumens per fixture fully shielded (1) <u>Full cutoff, and maximum B.U.G. rating of B2 U0 G2 (5)(7). Uplighting Accent or Façade lighting may be allowed upon issuance of a variation pursuant to Section 150.605(E).</u>	14'	Not Applicable	15'	Maximum building height allowed(2)

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		Maximum Foot-Candle Level at Property Line		Average Foot Candles	Foot-Candle Average / Minimum Uniformity Ratio	Minimum Foot Candles for Parking	Minimum Foot Candles for Walkways	Maximum Watts per Square Foot	Light Source Shielding Requirements	Maximum Light Pole Height from Grade	Maximum Exterior Fixture Height on Principal Structures	Maximum Exterior Fixture Height on Accessory Structures	Maximum Fixture Height in Trees
		Horizontal Brightness Limit	Vertical Brightness Limit (11)										
Outdoor Recreation Uses	All Lighting	0.25 foot candles if adjacent residential	<u><b>0.8 foot-candles along any point of the plane of the property line where not adjacent to a residential zone; 0.1 foot-candles along any point of the plane of the property line where adjacent to a residential zone</b></u>	I.E.S. Standards shall apply	I.E.S. Standards shall apply	Not Applicable	0.6 foot candles	<u><b>Comply with governing energy code as identified in Section 170.035 of this Code</b></u>	See footnote 4	I.E.S. Standards shall apply	<del>Not Applicable</del>	15'	Not Allowed
		1.0 all other times									<del>Not Applicable</del>		
Gasoline &/or Diesel Fuel Stations	Parking Areas and Approach	.25 foot candles if adjacent to residential. All other times 2.0 at property line and 1.0 at 15 feet beyond property line (6)	<u><b>0.8 foot-candles along any point of the plane of the property line where not adjacent to a residential zone; 0.1 foot-candles along any point of the plane of the property line where adjacent to a residential zone</b></u>	Not to Exceed 15	<u><b>4:1</b></u>	0.2 foot candles	Not Applicable	<u><b>Comply with governing energy code as identified in Section 170.035 of this Code</b></u>	Full cutoff, <u><b>and maximum B.U.G. rating of B2 U0 G2 (5)</b></u>	22'	<del>Not Applicable</del>	15'	Not Allowed
	Pump Area			Not to Exceed 30	<u><b>3:1</b></u>	Not Applicable	Not Applicable	<u><b>Comply with governing energy code as identified in Section 170.035 of this Code</b></u>	Full cutoff, <u><b>and maximum B.U.G. rating of B2 U0 G2 (5)</b></u>	22'	<del>Not Applicable</del>	15'	
	All Other Lighting			I.E.S. Standards Shall Apply	4:1 for walkways only	Not Applicable	Not Applicable	<u><b>Comply with governing energy code as identified in Section 170.035 of this Code</b></u>	>1800 lumens per fixture partially shielded. >3000 lumens per fixture fully shielded (1) <u><b>Full cutoff, and maximum B.U.G. rating of B2 U0 G2 (5)(7). Uplighting Accent or Façade lighting may be allowed upon issuance of a variation pursuant to Section 150.605(E).</b></u>	14'	<del>Not Applicable</del>	15'	

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		Maximum Foot-Candle Level at Property Line		Average Foot Candles	Foot-Candle Average / Minimum Uniformity Ratio	Minimum Foot Candles for Parking	Minimum Foot Candles for Walkways	Maximum Watts per Square Foot	Light Source Shielding Requirements	Maximum Light Pole Height from Grade	Maximum Exterior Fixture Height on Principal Structures	Maximum Exterior Fixture Height on Accessory Structures	Maximum Fixture Height in Trees
		Horizontal Brightness Limit	Vertical Brightness Limit (11)										
Motor Vehicle Sales	Front Row Feature Stands	0.25 foot candles if adjacent to residential. All other times 2.0 at property line and 1.0 at 15 feet beyond property line(6) (10)	<u>0.8 foot-candles along any point of the plane of the property line where not adjacent to a residential zone;</u> <u>0.1 foot-candles along any point of the plane of the property line where adjacent to a residential zone (10)</u>	Not to exceed 50	Average/ Minimum Ratio Not Applicable  Maximum to Minimum Uniformity Ratio 5:1	Not Applicable	Not Applicable	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	Full cutoff, <u>and maximum B.U.G. rating of B3 U0 G3 (3)(5)</u>	22'	Not Applicable	15'	Not Allowed
	General Sales Area			Not to exceed 30	Average/ Minimum Ratio Not Applicable  Maximum to Minimum Uniformity Ratio 10:1	Not Applicable	Not Applicable	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	Full cutoff, <u>and maximum B.U.G. rating of B3 U0 G3 (5)</u>		Not Applicable		
	Within 100 feet of adjacent residential			Not to exceed 7	Average/ Minimum Ratio Not Applicable  Maximum to Minimum Uniformity Ratio 12:1	Not Applicable	Not Applicable	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	Full cutoff, <u>and maximum B.U.G. rating of B3 U0 G3 (5)</u>				
Religious and Educational Institutions in Single Family	Parking Areas and Approach	0.25 foot candles if adjacent to residential 1.0	<u>0.2 foot candles along any point of the plane of the property line</u>	Not to Exceed 15	<u>4:01</u>	0.2 foot candles	Not Applicable	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	Full cutoff, <u>and maximum B.U.G. rating of B1 U0 G1 (5)</u>	16'	Not Applicable	15'	Not Allowed

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Residential Districts	Pump Area All Other Lighting	all other times (6)		I.E.S. Standards Shall Apply	I.E.S. Standards Shall Apply	Not Applicable	Not Applicable	<u>Comply with governing energy code as identified in Section 170.035 of this Code</u>	<del>&gt;1800 lumens per fixture partially shielded. &gt;3000 lumens per fixture fully shielded (1)</del> <u>Full cutoff, and maximum B.U.G. rating of B1 U0 G1 (5)(7).</u> <u>Uplighting Accent or Façade lighting may be allowed upon issuance of a variation pursuant to Section 150.605(E).</u>	14'	<del>Not Applicable</del>	15'	Maximum building height allowed (2)
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Footnotes:

- (1) Incandescent lamp - 890 lumens = 60 watts, 1800 lumens = 100 watts, 3000 lumens = 150 watts, halogen lamp - 890 lumens = 52 watts, 1800 lumens = 90 watts, 3000 lumens = 150 watts, compact fluorescent lamp - 890 lumens = 13 watts, 1800 lumens = 26 watts, 3000 lumens = 42 watts, HID lamp - 890 lumens = N/A, 1800 lumens = N/A, 3000 lumens = 39 watts
- (2) Fixtures shall be aimed directly downward and shall not to exceed 2.0 maximum foot candles measured 6 feet above ground immediately below lighting fixture.
- (3) Secondary flood lights may be added to front row poles provided mounting height does not exceed 14 feet and aiming angle does not exceed 35 degrees (measured vertically from nadir).
- (4) Fixtures must be aimed toward interior of the property.
- (5) Written documentation must be submitted in addition to the other requirements of this section that demonstrates that the location, type, and aiming of all light fixtures will focus light on the playing fields and minimize glare and visibility from adjoining properties.
- (6) Fixtures located within 20 feet of a residential property line shall be directed toward the interior of the property and fully shielded from view of the adjacent residential property.
- (7) Where a driveway serving as ingress and/or egress bisects the property line, illumination levels at the property line shall not exceed 3 foot candles.
- (8) All flood or spot directional lights regardless of wattage shall be shielded to prevent glare from being visible at the property line.
- (9) I.E.S. standards will apply when items such as definitions, standards, measurement protocol and methodology are not addressed in this Code.
- (10) In the B3 and I zoning districts, light trespass requirements may be met relative to the mid-line of the street when the property is adjacent to a major arterial street or highway. When the street or highway is divided, light trespass may be measured according to the mid-line of the adjacent single-direction lane of travel.**
- (11) Vertical light level restrictions shall be measured in the vertical plane at the property line up to the maximum height of the principal structure on the site or of the nearest adjacent structure, whichever is higher.**

**Additions are bold and double underlined;** ~~deletions are struck through.~~



(B) Additional Requirements in single-family districts. The following requirements and provisions shall be applicable in all single-family residential districts:

1. Lighting levels at exterior building walls shall not exceed 40 foot candles at any one point and no more than 15% of foot candle readings, taken at 20-foot intervals along an exterior building wall shall exceed 5 foot candles.
2. A motion controlled fixture shall only be setoff by movement occurring on the property on which such a fixture is located. Motion occurring from off of the property on which a motion controlled fixture is located shall not cause that motion controlled fixture to illuminate.

(C) Additional Requirements in all zoning districts. The following requirements and provisions shall be applicable in all zoning districts, except that they shall not apply to streetlights or to any lighting located within a public right-of-way:

1. Use or installation of high and low pressure sodium lights or mercury vapor lights is prohibited.
2. **Where LED light sources are used, LEDs must be within 2700 – 4100 Kelvin in Correlated Color Temperature (CCT), and have a minimum Color Rendering Index (CRI) of 70%.**
3. All lighting, except for emergency and security lighting, shall not exceed seven average foot candles within 100 feet of adjacent residential land except for 24- hour gasoline service stations.
4. Exterior lights that blink or shine with an intermittent phase are prohibited; provided, however, outdoor holiday decorations are exempt from these requirements for a period of forty-five (45) days before and fifteen (15) days after the holiday for which such outdoor holiday decorations are installed.
5. Light poles in a parking lot shall be protected from vehicles by curbed landscape islands or elevated concrete pedestals.
6. Light levels shall be measured in the horizontal plane, at ground level unless I.E.S. standards dictate otherwise **or subject to a vertical light level restriction. Vertical light level restrictions shall be measured in the vertical plane at the property line up to the maximum height of principal structure on the site or nearest adjacent structure, whichever is higher.**
7. Lighting of outdoor recreational uses shall cease at midnight.
8. The installation of all exterior lights and fixtures operating on 120 volts or greater AC shall require a permit prior to installation. Each application for such exterior lights shall include a photometric plan demonstrating compliance with the requirements of Article VI (Performance Standards) of this chapter and shall include the following:

**Additions are bold and double underlined; deletions are struck through.**

- (a) All property lines, building locations, dimensions of paved areas, and location of all curbs relative to the proposed exterior light(s) and fixture(s).
- (b) Proposed exterior light and fixture location(s)
- (c) Details and height specifications of all proposed exterior lights and fixtures, **including, as applicable, B.U.G. rating values.**
- (d) Photometric data at all property lines and within all parking lots at a spacing of not greater than ten feet (10') measured at the ground. When possible, photometric data shall extend 15' beyond the property line. Photometric data shall be generated by a recognized computer program and shall include calculation of maximum foot candles, minimum foot candles, average foot candles, and average to minimum uniformity ratio.
- (e) Photometric data shall be calculated by using maintained light levels as calculated by I.E.S. standards.
- (f) Plans at a scale of not less than one inch to fifty feet (1":50').
- (g) Details of all proposed light poles and associated foundations.
- (h) Other information as required.

8. Any abandoned, non-functional exterior light or fixture, as well as all associated hardware including, without limitation, poles, bases, and wiring shall be immediately removed.

(D) Specific Authorized Variations by the Zoning Board of Appeals. Notwithstanding any other provision of this Chapter, the Zoning Board of Appeals shall have the right to grant or deny a variance for the following specific purposes, but only with respect to single-family residential land uses, and only pursuant to the procedures set forth in Section 150.605(G):

- a. To permit legal non-conforming uses, homeowners associations, community based services, recreational clubs, and similar facilities to be subject to the lighting requirements set forth in this Section 150.605 for high density residential districts.
- b. To allow an increase in maximum lighting levels and uniformity standards when needed for security purposes provided that no greater impact on the surrounding property is found. Variations may be granted in average foot candles or maximum lumens if related to an increase in foot candles.
- c. To increase the maximum light pole height from grade, provided that such an increased height provides a better alternative to meet operational requirements and does not increase the impact on surrounding property.

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(E) Specific Authorized Variations by the ~~Design Review Commission~~ **Plan & Design Commission**. Notwithstanding any other provision of this Chapter, the ~~Design Review Commission~~ **Plan & Design Commission** shall have the right to grant or deny a variance for the following specific purposes, but only with respect to non-single-family residential land uses, and only pursuant to the procedures set forth in Section 150.605(G):

- a. To permit legal non-conforming uses, homeowners associations, community based services, recreational clubs, and similar facilities to be subject to the lighting requirements set forth in this Section 150.605 for high density residential districts.
- b. To allow an increase in maximum lighting levels and uniformity standards when needed for security purposes provided that no greater impact on the surrounding property is found. Variations may be granted in average foot candles or maximum lumens if related to an increase in foot candles.
- c. To increase the maximum light pole height from grade, provided that such an increased height provides a better alternative to meet operational requirements and does not increase the impact on surrounding property.
- d. To vary the limits on Lumens, B.U.G. rating, or Vertical Foot Candle levels; provided that no such variation may be granted unless the variation will cause no greater impact on the surrounding property than the standard set forth in this Chapter.**

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