ORDINANCE NO. 2009-

AN ORDINANCE OF THE VILLAGE OF KEY BISCAYNE, FLORIDA AMENDING THE VILLAGE CODE BY CREATING ARTICLE VI, "LIGHTING REGULATIONS FOR MARINE TURTLE PROTECTION" OF CHAPTER 8 "ENVIRONMENT"; PROVIDING FOR SEVERABILITY; PROVIDING FOR INCLUSION IN THE CODE; PROVIDING FOR EFFECTIVE DATE.

WHEREAS, the Village Council desires to amend the Village Code to create regulations to protect nesting marine turtles and their offspring; and

WHEREAS, the Village Council has reviewed this ordinance in its capacity as the Local Planning Agency, and has found this ordinance to be consistent with the Village of Key Biscayne Comprehensive Master Plan.

NOW, THEREFORE, IT IS HEREBY ORDAINED BY THE VILLAGE COUNCIL OF THE VILLAGE OF KEY BISCAYNE, FLORIDA, AS FOLLOWS:

Section 1. Recitals Adopted. That the above stated recitals are hereby adopted and confirmed.

Section 2. Village Code Amended. That the Village Code of the Village of Key Biscayne, Florida is hereby amended by adding Article VI "Lighting Regulations for Marine Turtle Protection" of Chapter 8 "Environment" to read as follows:**ARTICLE VI. LIGHTING REGULATIONS FOR MARINE TURTLE PROTECTION.**

Sec. 8-401. Purpose and Intent.

The purpose of this article is to reduce the impacts of artificial coastal lighting on threatened and endangered sea turtles that nest on the beaches of Key Biscayne by restricting artificial lighting and other activities that disorient turtle hatchlings, causing them to crawl toward land rather than

toward the ocean. This article is intended to provide overall improvements in nesting habitat degraded by light pollution, and increase successful nesting activity and production of hatchlings. The restrictions and constraints of this article shall be effective within the incorporated areas of Key Biscayne and apply to any artificial lighting that has potential to adversely impact sea turtles within Village limits.

Sec. 8-402. Definitions.

Definitions provided in this article are intended for use in this article only and shall not be construed to amend any existing definition in the Land Development Regulations. The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Alternative lighting source means any amber or red LED bulbs with long wavelength bulbs greater than 580 nanometers; low pressure sodium bulbs, Turtle Safe Lighting coated compact fluorescent bulb; fiber optic lighting and true red neon or any other lighting device that meets the intent of this article.

Artificial light means any point source of light emanating from a device made by humans, including but not limited to incandescent mercury vapor, metal halide, sodium lamps, fluorescent, flashlights, spotlights, streetlights, vehicular lights, construction lights, security lights, bonfires, or any light emanating from any reflective surface of the device.

*Beach*means that area of unconsolidated material that extends landward from the mean low-water line of the Atlantic Ocean, to the place where there is a marked change in material or physiographic form, or to the line of permanent vegetation.

Bug type bulb means any yellow or other colored light bulb that is marketed as being specifically treated in such a way so as to reduce the attraction of bugs to the light.

Coastal construction activities means any work or activity that is likely to have a material physical effect on existing coastal conditions or natural shore and inlet process.

County means Miami-Dade County.

Cumulatively illuminated means illuminated by numerous artificial light sources that as a group illuminate any portion of the beach.

Directly illuminated means illuminated as a result of glowing elements, lamps, globes, or reflectors of an artificial light source that is visible to an observer standing anywhere on the beach.

Dune means a mound or ridge of loose sediments, usually sand-sized, lying landward of the beach and deposited by any natural or artificial mechanism.

Existing development means any development for which a certificate of use or occupancy has been issued or for development activity for which a building permit as been issued and work has been substantially completed at the time of the effective date of this article.

Filmed glass means window glass that has been covered with a film such that the material has a shading coefficient of 45 percent or less, adhesive as an integral part, and has performance claims that are supported by approved testing procedures and documentation.

Frontal dune means the first natural or artificial mound or bluff of sand that is located landward of the beach and that has sufficient vegetation, height, continuity and configuration to offer protective value.

Ground-level barrier means any vegetation, natural feature or artificial structure rising from the ground that prevents beachfront lighting from shining directly onto the beach-dune system.

Hatchling means any species of marine turtle, within or outside of a nest, which has recently hatched from an egg.

Indirectly illuminated means illuminated as a result of glowing elements, lamps, globes, or reflectors of an artificial light source that is not visible to an observer standing anywhere on the beach.

Marine turtle means any marine-dwelling reptile of the families Cheloniidae or Dermochelyidae found in Florida waters or using the beach as a nesting habitat, including the species: Caretta caretta (loggerhead), Chelonia mydas (green), Dermochelys coriacea (leatherback), Eretmochelys imbricata (hawksbill), and Lepidochelys kempi (Kemp's ridley). For purposes of this section, marine turtle is synonymous with sea turtle.

Nest means an area where marine turtle eggs have been naturally deposited or subsequently relocated.

Nesting season means the period from May 1 through October 31 of each year.

New development means new construction which has not been permitted or for development activity for which a building permit as been issued and work has not been substantially completed at the time of the effective date of this article.

Nighttime means the time period between 10:00 pm and 5:00 am within the Village limits of Key Biscayne.

Person means individuals, firms, associations, joint ventures, partnerships, estates, trusts, syndicates, fiduciaries, corporations, and all other groups or combinations.

Tinted glass means any glass treated to achieve an industry-approved inside-to-outside light transmittal value of 45 percent or less. Such transmittance is limited to the visible spectrum (400 to

700 nanometers) and is measured as the percentage of light that is transmitted through the glass.

Sec. 8-403. Prohibited Activities Disruptive to Marine Turtles.

(a) *Prohibited activities.* The following activities involving direct illumination of portions of the beach are prohibited on the beach at nighttime during the nesting season for the protection of nesting marine turtle females, nests and hatchlings:

(1) The operation of all motorized vehicles, except emergency and law enforcement, or beach maintenance vehicles or those permitted on the beach for marine turtle's conservation and/or research.

(2) The building of campfires or bonfires.

(3) Fireworks displays, except those that have Village special event permits and, if applicable, a Florida Department of Environmental Protection ("DEP") permit; however, nothing in this article shall prohibit the Village's offshore annual July 4th fireworks display.

(4) Special events pursuant to Section 17-4(12) and 30-102(c) of the Village Code unless allowed first by permit issued by the Florida Department of Environmental Protection.

Sec. 8-404. Lighting Standards_for Coastal Construction Activities

(a) *Lighting standards for new development.* It is the policy of the Village of Key Biscayne that no artificial light shall illuminate within direct line-of-sight of the beach that has potential to interfere with turtle nesting. To meet this intent, new development construction within line-of-sight of the beach shall comply with the following:

(1) Exterior artificial light fixtures shall be designed and positioned so that:

a. The point source of light or any reflective surface of the light fixture is not directly visible from the beach;

b. Areas seaward of the frontal dune are not directly or indirectly illuminated; and

c. Areas seaward of the frontal dune are not cumulatively illuminated.

(2) Exterior artificial light fixtures within direct line-of-sight of the beach are considered appropriately designed if:

a. Completely shielded downlight only fixtures or recessed fixtures having low wattage (i.e., 50 watts or less) bug type bulbs and non-reflective interior surfaces are used. Other fixtures that have appropriate shields, louvers, or cut-off features may also be used if they are in compliance with subsection (1)(a), (b), and (c) above; and

b. All fixtures are mounted as low in elevation as possible through use of low-mounted wall fixtures, low bollards, and ground-level fixtures.

(3) Floodlights, uplights or spotlights for decorative and accent purposes that are directly visible from the beach, or which indirectly or cumulatively illuminate the beach, shall not be used.

(4) Exterior lights used expressly for safety or security purposes shall be limited to the minimum number and configuration required to achieve their functional role(s). The use of motion detector switches that keep lights off except when approached and that switch lights on for the minimum duration possible are preferred.

(5) Only low intensity lighting shall be used in parking areas within line-of-sight of the beach. Such lighting shall be:

a. Set on a base which raises the source of light no higher than 48 inches off the ground or higher if necessary to conform with life safety codes; and

b. Positioned or shielded so that the light is cast downward and the source of light or any reflective surface of the light fixture is not visible from the beach and does not directly or indirectly illuminate the beach.

(6) Parking areas and roadways, including any paved or unpaved areas upon which motorized vehicles will park or operated, shall be designed and located to prevent vehicular headlights from directly or indirectly illuminating the beach.

(7) Vehicular lighting, parking area lighting, and roadways lighting shall be shielded from the beach through the use of ground-level barriers. Ground-level barriers must not interfere with marine turtle nesting or hatchling emergence, or cause short-or long-term damage to the beach/dune system.

(8) Tinted glass shall be installed on all windows and glass doors of single and multi-story structures within line-of-sight of the beach.

(9) Use of appropriately shielded low pressure sodium vapor lamps and fixtures shall be preferred for high-intensity lighting applications such as lighting parking areas and roadways, providing security, and similar applications.

(10) Temporary lighting of construction sites during the marine turtle nesting season shall be restricted to the minimal amount necessary and shall incorporate all of the standards of this section.

(11) Properties that abut the beach which have signage facing the beach or in the line-of-sight of the beach, including building identification signs, shall not be illuminated during the nighttime hours of the nesting season. Properties that face the beach but do not abut the beach which have signage visible from the beach shall be properly shielded with

downward facing fixtures where the chosen background does not reflect the light source and signs that are lit internally must illuminate only the text and have the appropriate shielding, and not reflect the light source.

(b) *Lighting standards for existing development.* It is the policy of the Village of Key Biscayne that no artificial light shall illuminate any area within direct line-of-sight of the beach that has the potential to interfere with turtle nesting. To meet this intent, within forty eight (48) months of the effective date of this article or when an existing development has begun renovations exceeding fifty percent (50%) of the tax assessed value of the structure as determined by the building official, an existing development shall be in compliance with the following:

(1) Existing artificial light fixtures shall be repositioned, modified, or removed so that:

a. The point source of light or any reflective surface of the light fixture is not directly visible from the beach;

b. Areas seaward of the frontal dune are not directly or indirectly illuminated; and

c. Areas seaward of the frontal dune are not cumulatively illuminated.

(2) The following measures shall be taken to reduce or eliminate the negative effects of existing exterior artificial lighting:

a. Reposition fixtures so that the point source of light or any reflective surface of the light fixture is no longer visible from the beach;

b. Replace fixtures having an exposed light source with fixtures containing recessed light sources or shields;

c. Replace traditional light bulbs with bug type bulbs not exceeding 50 watts or any alternative lighting source as defined herein;

d. Replace nondirectional fixtures with directional fixtures that point down and away from the beach;

e. Replace fixtures having transparent or translucent coverings with fixtures having opaque shields covering an arc of at least 180 degrees and extending an appropriate distance below the bottom edge of the fixture on the seaward side so that the light source or any reflective surface of the light fixture is not visible from the beach;

f. Replace pole lamps with low-profile, low-level luminaries so that the light source or any reflective surface of the light fixture is not visible from the beach;

g. Replace incandescent, fluorescent, and high intensity lighting with the lowest wattage low pressure sodium vapor lighting possible for the specific application or an alternative lighting source;

h. Plan or improve vegetation buffers between the light source and the beach to screen light from the beach;

i. Construct a ground level barrier to shield light sources from the beach. Ground-level barriers must not interfere with marine turtle nesting or hatchling emergence, or cause short- or long-term damage to the beach-dune system;

j. Permanently remove or permanently disable any fixture that cannot be brought into compliance with the provisions of these standards.

(3) Properties that abut the beach which have signage facing the beach or in the line-of-sight of the beach, including building identification signs, shall not be illuminated during the nighttime hours of the nesting season. Properties that face the beach but do not abut the beach which have signage visible from the beach shall be properly shielded with downward facing fixtures where the chosen background does not reflect the light source and signs that are lit internally must illuminate only the text and have the appropriate shielding, and not reflect the light source.

(4) One or more of the following measures shall be taken to reduce or eliminate the negative effects of interior light emanating from doors and windows within line-of- sight of the beach:

a. Apply window tint or film that meets the standards in the definition of "Tinted or Filmed glass";

b. Rearrange lamps and other moveable fixtures away from windows;

c. Use window treatments (e.g., blinds, curtains) to shield interior lights from the Beach; and/or

d. Turn off unnecessary lights.

Sec. 8-405. Other Codes and Provisions.

(a) To the extent these standards conflict with life safety codes or other codes having life safety provisions, the provisions of this Article shall not supersede those specific life safety provisions.

(b) New or existing development which has secured a Coastal Construction Line Permit or Joint Coastal Permit from the Department of Environmental Protection which includes a lighting

review for marine turtle protection will be deemed to have complied with the provisions of this Article.

(c) Publicly-owned lighting which includes, but is not limited to, street lights, park lights, publicly-owned facility lights and walkway lights shall be shielded or shaded to the extent the lights are determined by the Village not to be necessary for public safety purposes.

Sec. 8-406. Enforcement and Penalties.

The provisions of this article shall be enforced pursuant to Section 1-14 and Article III of Chapter 2 of this Code and by any other means permitted by law. In addition, the enforcing agency may notify the property owner or other person responsible for lighting or management of the property, in writing, that an external lighting source causing a violation may be removed by the Village. The Village shall recover from the property owner the costs of removal of external lighting sources causing violations, which shall constitute a lien against the property and shall be reimbursed to the Village at time of sale of the property or upon any lien foreclosure action. Said lien shall have the same priority as a lien for real estate taxes.

Section 3. Severability. That the provisions of this Ordinance are declared to be severable, and if any section, sentence, clause or phrase of this Ordinance shall for any reason be held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining sections, sentences, clauses, and phrases of this Ordinance but they shall remain in effect, it being the legislative intent that this Ordinance shall stand notwithstanding the invalidity of any part.

Section 4. Inclusion in the Code. That it is the intention of the Village Council, and it is hereby ordained that the provisions of this Ordinance shall become and be made a part of the Code of the Village of Key Biscayne; that the sections of this Ordinance may be renumbered or relettered

to accomplish such intentions; and that the word "Ordinance" shall be changed to "Section" or other appropriate word.

Section 5. Effective Date. That this Ordinance shall be effective immediately upon adoption on second reading.

PASSED AND ADOPTED on first reading this 14th day of April, 2009.

PASSED AND ADOPTED on second reading this ___ day of _____, 2009.

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MAYOR ROBERT L. VERNON

ATTEST:

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CONCHITA H. ALVAREZ, MMC, VILLAGE CLERK

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

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VILLAGE ATTORNEY

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