



CITY OF SANTA BARBARA

PLANNING COMMISSION STAFF REPORT

REPORT DATE: July 17, 2008

AGENDA DATE: August 7, 2008

SUBJECT: OUTDOOR LIGHTING AND STREETLIGHTING GUIDELINES
ADVISORY GROUP REPORT

TO: Planning Commission

FROM:  Public Works Department, Engineering Division
John Ewasiuk, Principal Civil Engineer

Executive Summary

Over the past several years, City streetlight related issues have been periodically discussed in detail by the City Boards and Commissions on a case-by-case basis as projects are reviewed through the City's development review process. Certain streetlight issues and concerns continue to resurface, such as appropriate illumination, available streetlight pole-type and light-fixture style, streetlight aesthetics, light pollution, and City fiscal impacts pertaining to maintenance of poles and fixtures. In response to these ongoing concerns, Council formally established a City Streetlight Design Guidelines Advisory Group (Advisory Group) on March 22, 2005, to evaluate related issues and propose recommendations for Council to consider for adoption. The Advisory Group consists of representatives of the Council, Planning Commission (PC), Historic Landmarks Commission (HLC), Architectural Board of Review (ABR), Transportation and Circulation Committee (TCC), and City staff.

The Advisory Group has prepared draft final recommended Outdoor Lighting and Streetlighting Guidelines for final review and comments by the Boards and Commissions. Once final Board and Commission comments are received, the recommended guidelines will then be presented to Council for final approval.

Additionally, the Advisory Group updated the 1997 adopted Outdoor Lighting Design Guidelines as it was opportune to combine the outdoor lighting guidelines with the streetlight guidelines for convenience and consistency.

REVIEWED BY: _____ Finance _____ Attorney _____ Community Development

Agenda Item No. _____

Copies of the draft final Outdoor Lighting and Streetlighting Guidelines (Exhibit A), and a document summarizing changes to the current Outdoor Lighting Design Guidelines (Exhibit B) are attached for your review.

Background

On March 9, 2006, the Advisory Group presented its progress report to the PC and received comments. Subsequent and similar presentations were made to the above mentioned Boards and Commissions. Further, on November 7, 2007, a publicly noticed meeting was held with invitations sent out to lighting designers, electrical engineers, and manufacturers' representatives, to solicit input.

Staff has been working on alternative City streetlight standards and fixtures for possible addition to the City inventory. Primary areas of concern pertain to the aesthetics of the grey concrete poles, the "cobra head" style light fixture, and fiscal issues associated with maintaining and installing streetlight poles and fixtures.

There are approximately 3,600 streetlights in the City. The cobra head light fixture is the most common fixture in the City's inventory, with approximately 1,700 on concrete poles (owned and maintained by the City) and approximately 1,300 on wooden poles (owned and maintained by Edison). There are approximately 600 City metal/ornamental lights owned by the City that are concentrated in specific areas on State, Carrillo, and Chapala Streets, Coast Village Road, and Cabrillo Boulevard. There is a small inventory of Caltrans-owned streetlights at freeway on and off ramps that is not included in the above figures.

The goals of the Advisory Group are listed below:

- a) Review established lighting in the City and identify issues and recommend improvements;
- b) Establish lighting styles in areas where none exist;
- c) Recommend additional lighting styles, as deemed appropriate, to increase the City inventory;
- d) Evaluate fiscal impacts pertaining to maintenance and proposed improvements; and
- e) Draft streetlight guidelines for Council's consideration.

Current Status

Within the past month, the Advisory Group has made similar presentations to the HLC, TCC, and ABR, and has requested their input and comments. All three entities recommended the proposed streetlight guidelines be forwarded to Council for approval. Additionally, on June 9, 2008, staff made a first time presentation to the Single Family Design Board (SFDB). The SFDB received the staff presentation and gave positive comments. Staff will soon be returning to the SFDB to seek their recommendation to forward the proposed guidelines to Council for approval.

The proposed guidelines include the following highlights:

- Light pollution shall be minimized.
- New and retrofitted existing light fixtures shall be as energy efficient as feasible.
- Streetlights should have a city-wide consistent theme within which variation can occur.
- Standardize a limited number of pole and fixture combinations.
- Integrate existing and new guidelines for appropriate locations of streetlights and requests for new streetlights.
- Maximize improvements in aesthetics, functionality, energy efficiency, and maintenance by the most cost effective means.
- Enhance safety and security for pedestrians.
- Establish lighting styles in areas where none exist.
- Fiscal Impacts.

Also included is a City Streetlight Style and Location Map (Map) that identifies the existing streetlights within the City (Exhibit C). The Map also includes recommended poles and light fixtures.

Fiscal Issues

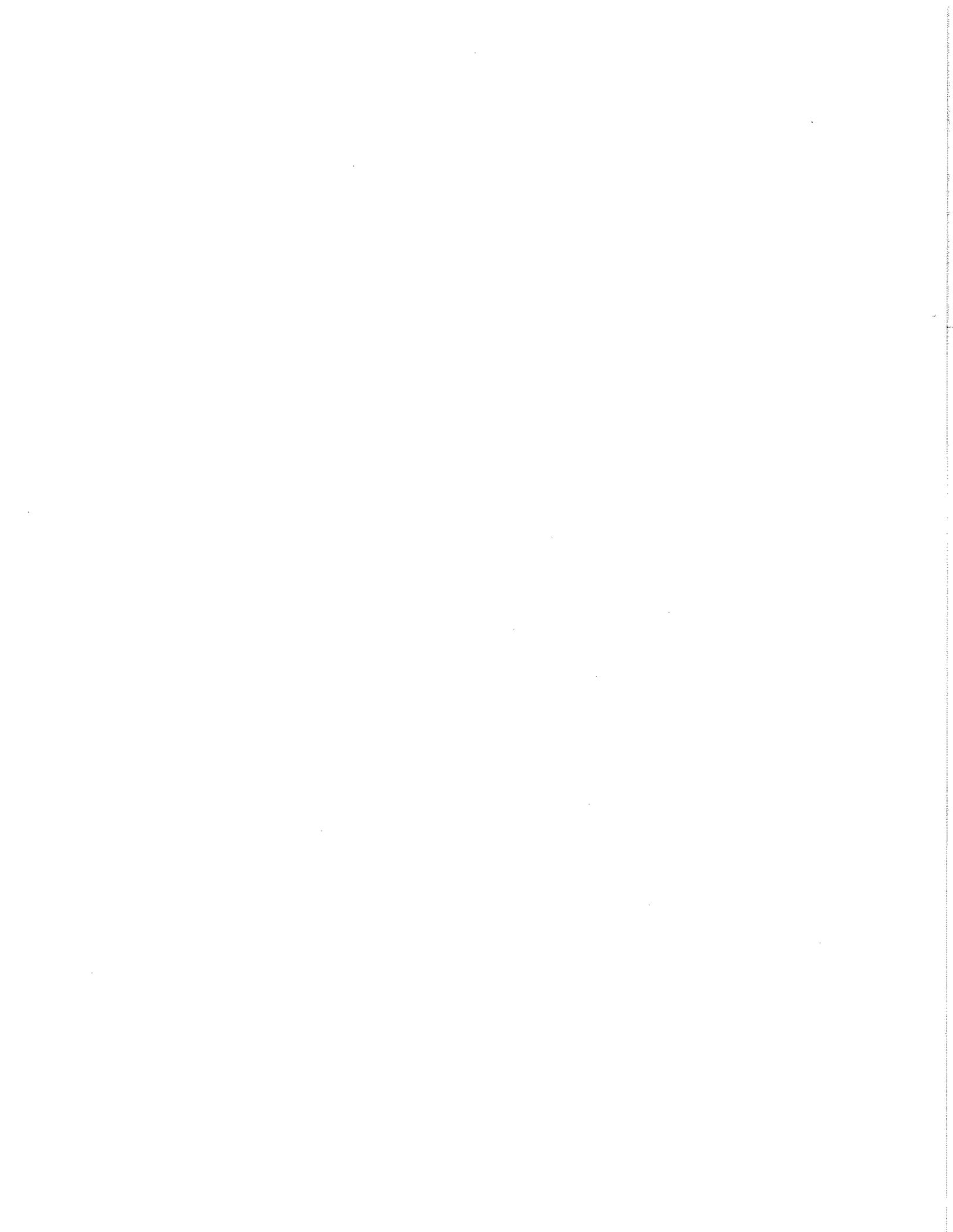
Limited funds are available in the City's Streets Capital Improvement Program (CIP) budget for streetlight-related improvements other than routine maintenance. There is currently no proposed budget to implement the improvements or upgrades as proposed by the proposed guidelines. Current approved budgets do not include any significant expenditures above and beyond conventional and historic routine maintenance, including painting of existing metal poles. Therefore any streetlight improvements would be accomplished through public or private projects in a "piecemeal" fashion.

Next Steps

The Advisory Group will compile all final comments and recommendations made by the Boards and Commissions, and the public. The Advisory Group will then finalize guidelines and recommendations for Council's consideration. It is anticipated that the final report and recommendations will be brought before Council for consideration in late summer 2008.

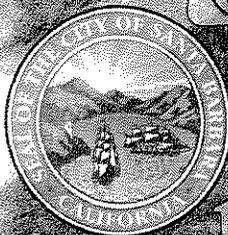
Exhibits:

- A. Outdoor Lighting and Streetlighting Guidelines
- B. Summarized changes to the Current Outdoor Lighting Guidelines
- C. Design Guidelines City Streetlight Style and Location Map





OUTDOOR LIGHTING
&
STREETLIGHTING
DESIGN GUIDELINES





OUTDOOR LIGHTING AND STREETLIGHTING DESIGN GUIDELINES

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OUTDOOR LIGHTING & STREETLIGHTING DESIGN GUIDELINES

INTRODUCTION

(NOTE: Words in *bold italics* are defined in the Glossary.)

Santa Barbara possesses a rich architectural heritage and a uniquely beautiful scenic environment. At night, lighting is an integral component of this built and natural environment. It is important that illumination is intelligently planned to complement this setting, while providing a cohesive appearance for the City's residential and commercial neighborhoods, and to preserve the semi-rural character that exists in many areas.

Safety and security for persons and property are also of paramount concern, and it is necessary to recognize the importance of quality of light versus quantity. These guidelines are intended to promote high quality lighting, efficient use of energy, and to reduce negative aspects of lighting such as light pollution, glare, light trespass, and wasted energy through misdirected light.

The City of Santa Barbara recognizes that industry standards for recommended minimum light levels may not be compatible with or appropriate for the aesthetic standards of the City. Appropriate lighting should always consider the brightness of surrounding conditions. Less light, and therefore less energy, is required when there is a consistency between lighting installations. Lighting levels appropriate in larger urban areas are not compatible with Santa Barbara's ambience.

The "streetscapes" of Santa Barbara are an important contributing element, both during the day, when attractively designed streetlighting poles and fixtures are visible, and at night, when the quality of light creates an ambience and provides safety for pedestrians, vehicles, and alternative modes of transportation. During the day, patterns and rhythms of streetlighting poles and fixtures are juxtaposed against the City's unique architectural landscape, and should not only be harmonious in their details and colors, but should also contribute to defining neighborhoods, scenic and circulation corridors, and historic districts.

The design policies and examples set forth in these Guidelines are not intended to discourage unique and inventive design solutions; they serve to assist the City's decision makers and staff, architects, lighting designers, and applicants with an understanding of concepts behind good lighting design and a means to achieve that goal by establishing parameters enabling reviewers to determine that the intent of the Ordinance and Guidelines has been met.

These Guidelines supplement, and should be used in conjunction with, the City's Outdoor Lighting Ordinance contained in Municipal Code Chapter 22.75 (see Appendix E), and the **Public Works Construction Standard Details**. Other laws or ordinances may require minimum or maximum illumination levels for specific applications and may conflict with these guidelines. In such cases, those laws or ordinances shall govern.

OBJECTIVES

- ◆ To promote a high standard for quality of lighting in commercial and residential areas of the City, and to assure lighting installations are subtle, appropriate, and avoid over-lighting, glare, and light pollution.
- ◆ To acknowledge the objectives of the **International Dark Sky Association** and strive to preserve and restore view of the night sky.
- ◆ To assure maximum energy efficiency in new and replacement lighting installations, and to encourage the use of new technologies when they can be aesthetically integrated, including energy efficient light sources and solar energy.
- ◆ To recognize patterns defined by existing streetlighting types and to encourage recognition of opportunities in reviewing projects for implementation of this guideline's goals.
- ◆ To promote efficiencies in specification of streetlighting installations through utilization of the **Public Works Construction Standard Details** for streetlight pole and fixture types, while achieving a desired variety to define areas through variations in poles, fixtures, and accessories.
- ◆ To expedite the approval process for streetlight installations where the City's **Design Review Boards** have established a designated design standard.

COMPLIANCE

To achieve "good lighting design" requires both technical expertise and artistic creativity. Lighting ordinances and guidelines can only succeed to a point in using technical metrics, or subjective descriptions of a desired look. It is anticipated that these Guidelines will be used by a variety of different users with a wide range of expertise in lighting design, and therefore employ a mix of technical requirements where necessary, as well as descriptive elements in order to guide the user toward a design that will be compatible with Santa Barbara's unique character.

Ultimately, it is the responsibility of the applicant to become familiar with these Guidelines in order to understand the City's objective for "good lighting design". All plans submitted for review and approval shall include a Compliance Statement per Appendix D.

SECTION A – Building & Site Lighting

All outdoor lighting on projects in commercial zones, and outdoor lighting on projects in residential zones that are subject to design review, shall be reviewed by the Architectural Board of Review, the Single Family Design Board, or the Historic Landmarks Commission for conformance with the City's Lighting Ordinance and these Guidelines.

Plans submitted for review and approval shall include information sufficient to demonstrate compliance with the requirements of these Guidelines, including such additional information that may be required under certain sections of these Guidelines, or as requested by City staff or the *Design Review Board*, such as foot-candle plots or controls. Changes after approval are subject to the same review process.

SECTION B – Streetlighting & Pedestrian Lighting in the Public Right-of-Way

Plans submitted for review and approval shall include information sufficient to demonstrate compliance with the requirements of these Guidelines. Additional information may be required as requested by Public Works Department staff or the *Design Review Board*, where applicable. Changes after approval are subject to the same review process.

— SECTION A —

Building & Site Lighting

(NOTE: Words in *bold italics* are defined in the Glossary.)

Part One - General Guidelines

- ◆ Lighting fixtures should be appropriate to the style of architecture or aesthetically concealed from view. (See also Guidelines for *El Pueblo Viejo District*.)
- ◆ Illumination levels should be appropriate to the type of use proposed, the architectural style of the structure, and the overall neighborhood.
- ◆ Lighting shall be designed to control *glare*, minimize *light trespass* onto adjacent properties, minimize *direct upward light emission*, promote effective security, and avoid interference with the safe operation of motor vehicles. The minimum intensity needed for the intended purpose should be used. This paragraph is not intended to preclude the use of decorative *lantern* fixtures with visible lamps, provided they meet other provisions of these guidelines.
- ◆ Lighting of building facades should be considered for appropriateness, and is generally discouraged as it is not consistent with energy conservation goals and the ambiance of Santa Barbara.
- ◆ Blinking, moving, or changing intensity of illumination; illumination of roofs; and internal illumination of awnings are not allowed. Strings of small lights attached to buildings are not allowed except for

OUTDOOR LIGHTING & STREETLIGHTING DESIGN GUIDELINES

General Guidelines, Cont'd.

temporary holiday installations between the last week of November and the first week of January of the following year.

- ◆ In the Hillside Design District, light fixtures for landscape, recreation, or building lighting should not emit undesirable light rays, either direct or reflected, into the night sky. Such lighting could create *skyglow*, which is inconsistent with rural residential areas.
- ◆ In all residential areas, illumination levels should be appropriate for residential uses. Lighting for commercial installations proximate to residential uses should be designed to be compatible with residential illumination levels.
- ◆ Lighting of signs shall be reviewed by the Sign Committee and shall be consistent with these guidelines.

Part Two - Specific Guidelines

A. Parking Lots and Traffic Areas (Excluding the Public Right of Way)

Goals:

- ◆ To provide cohesive and homogenous general illumination for parking lots and traffic areas that is similar to the warm color quality of *incandescent* lighting.
- ◆ To provide adequate light levels for safety and uniformity, but avoid *glare* and overlighting. *Design Review Boards* may approve higher light levels than stated below, where necessary in limited areas for additional safety and security.
- ◆ To promote the use of *full cut-off* type fixtures for area lighting and limit the use of decorative *lanterns* to lower level accent lighting.
- ◆ To maximize opportunities for energy conservation, while avoiding *glare* and *light trespass*, in design of lighting installations through selection of fixture type, lighting technology and location, and control of light levels.
- ◆ To integrate design of lighting installations with adjacent architecture and landscape.
- ◆ To meet or exceed the currently adopted *Title 24 Lighting Standards*.

Guidelines:

1. Lighting technologies currently recognized as meeting these guidelines are *High Pressure Sodium (HPS)*. The use of Deluxe *HPS* lamps is encouraged to provide high color rendering ability. *Metal Halide* lighting is discouraged. Other types such as *LED* and *Induction Lighting* may be acceptable if it can be demonstrated that they can provide a warm color quality.
2. Lamps in *cut-off fixtures* should be a maximum of 400 watts. Horizontal lamp mounting and flat glass lenses are preferred. "Sag" or "drop" lenses result in excessive glare and are not acceptable. Additional shielding of fixtures shall be required as determined by the *Design Review Board* to avoid fixture glare viewed from adjacent properties.
3. Lamps in *lantern* type fixtures where the lamp is not shielded should not exceed a maximum of 100 watts per fixture. Except for low-wattage lamps, additional means may be required to minimize glare, such as the use of refractors, louvers, or patterned or translucent glass to obscure view of the lamp.
4. Fixtures with an adjustable aiming angle present potential for skyglow and light trespass problems, and are generally not allowed.

Parking Lots and Traffic Areas, Cont'd.

5. Fixtures should be in scale with proposed pole height. Building elevations with poles and fixtures superimposed shall be provided for review. Lighting fixtures and poles should be appropriate to the style of architecture.
6. Total pole and fixture height should be a maximum of 20 feet, measured from grade at the base. Poles should be appropriately scaled for smaller buildings and lots. Closer spacing and lower wattage may be required. Taller poles may be considered in some situations, but should not conflict with tree canopies.
7. Pole lighting fixtures shall be shown on landscape plans to demonstrate coordination of fixtures and tree planting.
8. Lighting installations shall be equipped with controls as required by **Title 24 Lighting Standards**. Plans submitted shall specify the proposed off-time. This requirement shall include a provision for reduced light levels or reduced number of fixtures for after-hours security.
9. Average horizontal illuminance should target 1 foot-candle, measured at ground level, but should in no case exceed 1.5 foot-candles. **Design Review Boards** may approve higher light levels where necessary in limited areas for additional safety and security.
10. The uniformity ratio between maximum and minimum illuminance should not exceed 5:1. In general, 400 watt **HPS** lamps should not be mounted lower than 16 feet above ground, nor should 250 watt **HPS** lamps be lower than 12 feet.
11. It is important that lighting installations meet both the requirement for average horizontal illuminance, as well as the requirement for uniformity ratio.

Note: *The following additional requirements apply for all new installations and expansions of existing projects, unless deemed by staff and Design Review Board to be of a minor nature.*

12. Provide a point by point foot-candle plot on a site plan showing illuminance to 20 feet beyond property line. Show minimum, average, and maximum foot-candles and the uniformity ratio. Where adjacent to residential uses, illuminance should not exceed 0.1 (1/10) foot-candle at 10 feet beyond property line. Where adjacent to commercial uses, illuminance should not exceed 0.2 (2/10) foot-candle at 10 feet beyond property line.
13. The above calculations for minimum, average, and maximum foot-candles and uniformity ratio shall be based on a statistical area that does not include points beyond property line or more than 1.5 pole heights measured horizontally from the base of pole. Include all points within the pole field.

B. Parking Garages

Goals:

- ◆ To effect a safe and visually subtle transition from garage entrances and interiors to ambient daylight by day and to streetlighting and pedestrian lighting in the public right-of-way by night.
- ◆ To provide adequate light levels for safety and uniformity, but avoid overlighting and view of illumination sources from the public right-of-way. **Design Review Boards** may approve higher light levels than stated below, where necessary in limited areas for additional safety and security.
- ◆ To maximize opportunities for energy conservation through selection of fixture type, lighting technology and location, and control of light levels.
- ◆ To meet or exceed the currently adopted **Title 24 Lighting Standards**.

Parking Garages, Cont'd.

Guidelines:

1. Lighting technologies currently recognized as meeting these guidelines are *High Pressure Sodium (HPS)*, *Fluorescent*, and *Induction Lighting*. *Metal Halide* lighting is discouraged, and is not allowed in the transition zone.
2. The transition zone is the area that occurs at vehicle and pedestrian entrances and exits, between the ambient daylight or streetlighting and garage interior lighting, extending 60 feet into the building from the exterior face. Illuminances greater than the interior lighting may be needed during the day for the transition from full daylight to the relatively low interior illuminances. Illuminances less than the interior lighting may be needed during the night for the transition from lower streetlighting levels to the relatively bright interior illuminances. Lighting installations shall be equipped with controls as required by *Title 24 Lighting Standards* and as required to provide for daytime and nighttime illumination levels.
3. Brightness of the garage interior as viewed from vehicle entrances and exits is inconsistent with the ambient lighting of the City and must be carefully considered. Directed task lighting is preferred over higher general illumination. Lighting should reflect the color and intensity characteristics of streetlighting and site lighting, and glare resulting from direct view of illumination sources must be avoided.
4. Where the interior of the garage at grade level or higher is visible from outside the building, either through vehicle entrances and exits or other openings in the building walls, *glare* resulting from direct view of illumination sources must be minimized by careful placement and/or shielding of fixtures. Pole-top fixtures, where installed on the roof parking level, shall be *full cut-off* fixtures. Considerations for appropriate design include minimizing pole height, and avoiding placement of poles at the perimeter of the building. *Metal Halide* lighting is not acceptable for roof level pole-top fixtures.
5. Where Metal Halide lighting is used in the garage interior, the walls, if painted, should be of a color that will help to warm the reflected light.
6. Where *HID* lighting is used, *Cut-off* fixtures with horizontal lamp mounting and flat glass lenses are preferred. "Sag" or "drop" lenses result in excessive glare and are not acceptable.
7. Lighting controls for garage interior lighting are encouraged for energy conservation to provide reduced illumination levels when appropriate.
8. Average horizontal illuminance should target 1 foot-candle, measured at ground level, but should in no case exceed 1.5 foot-candles. *Design Review Boards* may approve higher light levels where necessary in limited areas for additional safety and security.
9. Provide a point by point foot-candle plot showing illuminance at the transition zones and to the furthest floor area visible from the vehicle entrance or exit. Show minimum, average, and maximum foot-candles and the uniformity ratio. Illuminance should not exceed the ambient streetlighting level at 10' feet beyond the vehicle entrance or exit.
10. Plans submitted for review shall show sufficient plan, detail, section, and finish information for staff and the *Design Review Board* to determine that the above guidelines have been met.

C. Service Stations, Automobile Dealerships, and Exterior Sales Areas

Goals:

- ◆ To meet or exceed the currently adopted *Title 24 Lighting Standards*.
- ◆ To harmonize with adjacent businesses and avoid use of lighting as a means of competition.
- ◆ To promote the use of *full cut-off* type fixtures for area lighting and decorative *lanterns* for lower level accents.
- ◆ To maximize opportunities for energy conservation, while avoiding *glare* and *light trespass*, in design of lighting installations through selection of fixture type, lighting technology and location, and control of light levels.
- ◆ To integrate design of lighting installations with adjacent architecture and landscape.

Guidelines:

1. Lighting technologies currently recognized as meeting these guidelines are *High Pressure Sodium (HPS)*, *Metal Halide*, and *Fluorescent*. New technologies including *LED* and *Induction Lighting* may be considered.
2. Lamps in *cut-off fixtures* should be a maximum of 400 watts. Horizontal lamp mounting and flat glass lens are preferred over vertical lamp mounting. "Sag" or "drop" lenses result in excessive *glare* and are not acceptable. Additional *shielding* of fixtures shall be required as determined by the *Design Review Board* to avoid fixture *glare* viewed from adjacent properties.
3. Lamps in *lantern* type fixtures where the lamp is not shielded should not exceed a maximum of 100 watts per fixture. Except for low-wattage lamps, additional means may be required to minimize glare, such as the use of refractors, louvers, or patterned or translucent glass to obscure view of the lamp.
4. Fixtures with an adjustable aiming angle present potential for skyglow and light trespass problems, and are generally not allowed.
5. Fixtures should be in scale with proposed pole height. Provide an elevation of the building with poles and fixtures superimposed for review. Lighting fixtures and poles should be appropriate to the style of architecture.
6. Total pole and fixture height should be a maximum of 20 feet, measured from grade at base. Poles should be appropriately scaled for smaller buildings and lots. Closer spacing and lower wattage may be required. Taller poles may be considered in some situations, but should not conflict with tree canopies.
7. Pole lighting fixtures shall also be shown on landscape plans to demonstrate coordination of fixtures and tree planting.
8. Lighting installations shall be equipped with controls as required by *Title 24 Lighting Standards*. Plans submitted shall specify the proposed off-time. This requirement shall include a provision for reduced light levels or reduced number of fixtures for after-hours security.
9. Fixtures mounted in service station canopies should be fully recessed, where feasible, and with flush or recessed diffusers. Where the underside of a canopy is sloping, fixtures should be adjustable to permit aiming straight down. All fixtures shall be designed to control *glare*. "Sag" or "drop" lenses result in excessive *glare* and are not acceptable.
10. For service station canopies, illuminance should not exceed 40 foot-candles average, with a maximum of 60 foot-candles measured at ground level.
11. For automobile sales areas in the area of Calle Real, Hope Avenue, and Hitchcock Way, illuminance shall be a maximum of 70 foot-candles measured at ground level.
12. For automobile sales areas in all other areas of the City, illuminance shall be a maximum of 30 foot-candles measured at ground level. *Design Review Boards* may approve higher light levels for limited accent lighting where appropriate.

Service Stations, Automobile Dealerships, and Exterior Sales Areas, Cont'd.

13. Glare from light reflected from automobile windshields in display lots is not acceptable and should be minimized by careful design of the lighting installation. Glare can result from fixtures with an adjustable aiming angle or intentionally low mounting heights.

14. For these and all other types of exterior sales areas, lighting levels shall be reviewed for appropriateness with the ambiance of the surrounding neighborhood.

Note: *The following additional requirements apply for all new installations and expansions of existing projects, unless deemed by staff and Design Review Board to be of a minor nature.*

15. Provide a point by point foot-candle plot on a site plan showing illuminance to 20 feet beyond property line. Show minimum, average, and maximum foot-candles and uniformity ratio. Where adjacent to residential uses, illuminance should not exceed 0.1 (1/10) foot-candle at 10 feet beyond the property line. Where adjacent to commercial uses, illuminance should not exceed 0.2 (2/10) foot-candle at 10 feet beyond property line.

16. The above calculations for minimum, average, and maximum foot-candles and uniformity ratio shall be based on a statistical area that does not include points beyond the property line or more than 1.5 pole heights measured horizontally from the base of pole.

D. Automated Teller Machines (ATMs)

Goals:

- ♦ To integrate design of lighting installations with adjacent architecture and avoid use of lighting as a means of competition.
- ♦ To meet the minimum illumination criteria required by applicable laws (California AB 244) for the safety and security of users without overlighting.
- ♦ To avoid **glare** and **light trespass** in design of lighting installations through selection of fixture type, lighting technology and location, and control of light levels. Direct visibility glare can prevent an ATM customer from observing objects or an approaching threat.

Guidelines:

1. Lighting technologies currently recognized as meeting these guidelines are **High Pressure Sodium (HPS)**, and **Fluorescent**. **Metal Halide** lighting is discouraged.
2. Lighting should be carefully shielded to avoid view of the source by awnings or other architectural elements, or provided by architecturally appropriate decorative fixtures.
3. ATM machines should be the minimum size necessary, and should not include extraneous signage. Except for data and instructional displays, internal illumination of graphics displays is not appropriate. Signage associated with ATMs may also be subject to review by the Sign Committee.

E. Landscape, Hardscape, and Building Lighting

Goals:

- ♦ To meet or exceed the currently adopted **Title 24 Lighting Standards**.
- ♦ To integrate energy conservation, new lighting technologies, and traditional fixture design characteristics when used with period architectural styles, such as in **El Pueblo Viejo**.
- ♦ To harmonize with adjacent businesses and avoid the use of lighting as a means of competition.

Landscape, Hardscape, and Building Lighting, Cont'd.

- ◆ To promote the use of *full cut-off* type fixtures for area lighting and decorative *lanterns* for lower level accents.
- ◆ To maximize opportunities for energy conservation, while avoiding *glare* and *light trespass*, in design of lighting installations through selection of fixture type, lighting technology and location, and control of light levels.
- ◆ To integrate design of lighting installations with adjacent architecture and landscape.

Guidelines:

1. Lighting technologies currently recognized as meeting these guidelines are *High Pressure Sodium (HPS)*, *Metal Halide*, *Fluorescent*, *Induction Lighting*, or *Light Emitting Diode (LED)*. Mercury Vapor (MV) may be used for illuminating landscaping. Incandescent lighting may be used for accent lighting, as allowed by *Title 24 Lighting Standards*. The use of colored lamps or filters is discouraged.
2. Landscape and building lighting should be carefully shielded to avoid view of the source and aimed to avoid spill light onto adjacent properties or into the night sky.
3. Lighting should be subtle. Lighting sources should not exceed 100 watts.
4. Lighting installations shall be equipped with controls as required by *Title 24 Lighting Standards*. Plans shall specify the proposed off-time. This requirement shall include a provision for reduced light levels or reduced number of fixtures for after-hours security.
5. Lighting fixtures shall also be shown on landscaping plans to demonstrate coordination of fixtures with trees and plants.
6. Area lighting fixtures and poles should be appropriate to the style of architecture.
7. Special attention must be given to the use of compact *fluorescent* lamps (also known as CFLs) in traditional fixture types, or in any fixture where the lamp is exposed to view. Use of opal or diffusing glass, or an accessory such as an internal diffusing shade may be necessary to conceal view of the lamp, unless the lamp is of a shape that closely resembles a traditional incandescent lamp. CFL color temperature should be approximately 3000°K.

F. Security Lighting

Goals:

- ◆ To enhance the security of people and property.
- ◆ To provide acceptable light levels for safety and uniformity, while avoiding *glare*, *light trespass*, and overlighting.

Guidelines:

1. Lighting technologies currently recognized as meeting these guidelines are *High Pressure Sodium (HPS)*, *Fluorescent*, *Induction Lighting*, or *Light Emitting Diode (LED)*. Incandescent may be used as allowed by *Title 24 Lighting Standards*.
2. Security lighting should be consistent with the above guidelines. Special care should be taken to control *glare* and direct view of illumination sources, and to confine illumination to the property on which the fixtures are located.
3. Lighting fixtures that are aimed at a building are much more effective for security than fixtures that are mounted on the building, which can blind observers of the property (police, neighbors or others).
4. Floodlighting attached to the building and aimed toward adjacent properties or the public right of way is not allowed. The term floodlighting includes "barn lights", "wall packs" and aimable fixtures.

— SECTION B —

Streetlighting & Pedestrian Lighting in the Public Right-of-Way

(NOTE: Words in *bold italics* are defined in the Glossary.)

Part One - General Guidelines

- ◆ Streetlighting & Pedestrian Lighting shall be designed to control *glare*, minimize *light trespass* onto adjacent properties, minimize *direct upward light emission*, promote effective safety and security, provide for safe operation of motor vehicles, and enhance safety for all modes of travel. The minimum intensity needed for the intended purpose should be used. This paragraph is not intended to preclude maintaining the use of existing decorative *lantern* fixtures with visible lamps, provided they meet other provisions of these guidelines.
- ◆ It is the practice of the City to meet or exceed the currently adopted *Title 24 Lighting Standards* for *full cut-off luminaires* and energy efficiency, regardless of the applicability of *Title 24 Lighting Standards* to lighting in the public right-of-way.
- ◆ In all residential areas, illumination levels should be compatible with residential uses. Lighting for commercial installations proximate to residential uses should be designed to be compatible with residential illumination levels and avoid *light trespass*.
- ◆ Streetlights should be compatible with their context (i.e. residential neighborhoods vs. commercial districts) and should, to the maximum extent feasible, have a City-wide consistent theme within which variation can occur.
- ◆ In new development, streetlights shall be installed to meet City standards. Streetlights are typically required at all intersections, locations of pedestrian crossings, changes of direction and ends of roads, and spaced as described in the *Public Works Construction Standard Details*.

Part Two - Specific Guidelines

A. Streetlights

Goals:

- ◆ To provide cohesive and homogenous illumination for streetlighting through the use of light sources similar in color to incandescent lighting.
- ◆ To meet *Public Works Construction Standard Details* light levels for safety and uniformity, but avoid *glare*, *light trespass*, and overlighting.
- ◆ To use energy efficient light fixtures for new and retrofit installations as feasible. The City should be at the forefront of utilizing new technologies when they can be aesthetically integrated, including the use of energy efficient light sources and solar energy, to minimize energy and lamp replacement maintenance costs.
- ◆ To identify "Opportunity Corridors" where anticipated future facility upgrades present an opportunity to establish a new character for major streets, or to extend an already established character. See *City Streetlight Map* (Appendix F) for more information.
- ◆ To encourage the use of streetlights as an element to establish the character of neighborhoods, as distinguished from arterial streets.

Streetlights, Cont'd.

- ◆ To standardize pole and fixture styles, simplifying review by *Design Review Boards* and minimizing inventory maintained by the City.
- ◆ To establish the use of textured concrete poles for new and replacement installations to minimize maintenance costs, except where it is determined that continued use of decorative cast metal poles in existing corridors is appropriate, such as in the *El Pueblo Viejo District*.
- ◆ To enhance the scenic environment of the City by recognizing and taking advantage of opportunities to incrementally replace *Cobra Head* fixtures.

Guidelines:

1. Lighting technologies currently recognized as meeting these guidelines are High Pressure Sodium (HPS). The use of Deluxe HPS lamps is encouraged to provide high color rendering ability. Metal Halide lighting is discouraged. Other types such as LED and Induction Lighting may be acceptable if it can be demonstrated that they can provide a warm color quality.
2. Poles, luminaires, and accessories shall comply with the *Public Works Standard Details* unless otherwise approved by the *Public Works Director* and *Design Review Boards* for aesthetic issues within their purview.
3. Fixtures should be in scale with the proposed pole height.
4. Lamp size shall be per *Public Works Construction Standard Details*.
5. Total pole and fixture height shall be per *Public Works Construction Standard Details*.

B. Pedestrian Lighting

Goals:

- ◆ To enhance safety and security for pedestrians while adding a pedestrian-scale element to streetscapes.
- ◆ To encourage local residents and visitors to walk through commercial and residential neighborhoods as an alternative to using their cars.

Guidelines:

1. Lighting technologies currently recognized as meeting these guidelines are *High Pressure Sodium (HPS)* and *Induction Lighting*.
2. Poles, luminaires, and accessories shall comply with the *Public Works Construction Standard Details* unless approved by the *Public Works Director* and *Design Review Board* for aesthetic issues within their purview.
3. Fixtures mounted on a pole used solely for pedestrian lighting should be in scale with the proposed pole height. Fixtures mounted on the same pole as streetlighting poles should have a pedestrian scale. Fixtures mounted on poles of alternating heights should be the same scale and mounting height.
4. Lamp size shall not exceed 70 watts per fixture.
5. Total pole and fixture height should be per *Public Works Construction Standard Details*.
6. Lighting installations shall be equipped with controls for photocell on and timer off. Plans shall specify the off time proposed.

Pedestrian Lighting, Cont'd.

7. When required by the Public Works Department, improvement plans shall provide a point by point foot-candle plot on a site plan showing illuminance to 20 feet beyond property line. Show minimum, average, and maximum foot-candles and uniformity ratio. Where adjacent to residential uses, illuminance should not exceed 0.1 (1/10) foot-candle at 10 feet beyond property line. Where adjacent to commercial uses, illuminance should not exceed 0.2 (2/10) foot-candle at 10 feet beyond property line.
8. Calculations shall be based on a statistical area that does not include points beyond the property line or more than 1.5 pole heights measured from the base of pole.
9. Pedestrian poles shall be designed to minimize light intrusion issues in residential areas, and prevent extreme glare.

C. El Pueblo Viejo

Goals:

- ◆ To preserve the existing inventory of streetlight poles and fixtures that contribute to defining the character of *El Pueblo Viejo*, and maintain them to the highest standard. These include the *Carrillo Street Fixture*, *Chapala Street Fixture*, *State Street Fixture*, and *Teardrop Fixture*.
- ◆ To require the use of existing pole and fixture types for extensions of existing installations.
- ◆ To establish the use of the *Teardrop Fixture* and metal pole with decorative base as the required new or replacement fixture for *Cobra Head* and *Marbelite Pole* installations at intersections.
- ◆ To introduce the use of the Dome Style Fixture and Marbelite Pole at locations where the foregoing fixture types are not specified.
- ◆ To respect the scale of the downtown streets by discouraging the use of accessories such as mast-arm-mounted traffic signals except on major boulevards, as determined by the *Public Works Director* and the *Design Review Board*.

Guidelines:

1. Poles, luminaires, and accessories shall comply with the *Public Works Construction Standard Details* and shall be as approved by the Historic Landmarks Commission as acceptable for use in *El Pueblo Viejo*.
2. The *City Streetlight Map* (Appendix F) delineates the locations and extents of existing fixture and pole types within *El Pueblo Viejo*.
3. Lighting within *El Pueblo Viejo* shall be consistent with these guidelines in all other respects, while utilizing fixtures and poles approved for the district.

D. Private Roads

- ◆ It is the City's practice and policy to design private roads to City Standards.
- ◆ The Airport roads south of Hollister Avenue are owned and maintained by the Airport Department. They are considered private roads and shall be designed to City Standards.

Appendices

A. Exceptions to Guidelines

Nothing in these guidelines shall preclude the *Design Review Board*, with concurrence from the *Public Works Director*, from reviewing and approving, or conditionally approving, an exception to these guidelines, provided such exceptions are consistent with applicable State and local laws and regulations, including *Public Works Construction Standard Details*, as determined by the *Public Works Director*. Exceptions may include, but are not limited to, illuminance level, illumination source, or pole height. The *Design Review Board* shall include findings in their approval, such as references to historical authenticity, special circumstances, existing installation, or other similar findings as deemed appropriate. The approval of an exception shall not be construed as establishing a precedent.

B. References to Other Ordinances, Guidelines, and Codes

The City of Santa Barbara has additional ordinances and guidelines which may contain specific requirements relating to lighting, including, but not limited to:

- ◆ Outdoor Lighting Ordinance, Municipal Code Chapter 22.75 (Included as Appendix E)
- ◆ *El Pueblo Viejo District*, ordinance and guidelines
- ◆ Sign Committee, ordinance and guidelines
- ◆ *Public Works Construction Standard Details*
- ◆ Single Family Residence Design Guidelines
- ◆ Solar Energy System Guidelines

Outdoor lighting is also subject to compliance with State of California *Title 24 Lighting Standards*.

C. Compliance Statement

SECTION A - Plans submitted for approval by the City of Santa Barbara Divisions of Land Use Controls and Building and Safety shall bear the following compliance statement on the first sheet of outdoor lighting plans:

Outdoor Lighting Compliance Statement		
As preparer of these plans for outdoor lighting, I certify that this lighting design meets the City of Santa Barbara Outdoor Lighting Ordinance and Outdoor Lighting Design Guidelines.		
Principal Lighting Designer Name	Signature	Date

SECTION B - Plans submitted for approval by the City of Santa Barbara Public Works Department shall bear the following compliance statement on plans for streetlighting and pedestrian lighting:

Streetlighting Compliance Statement		
As preparer of these plans for streetlighting, I certify that this lighting design meets the City of Santa Barbara Streetlighting Design Guidelines and Public Works Construction Standard Details.		
Principal Lighting Designer Name	Signature	Date

D. Glossary of Lighting Terms & Streetlight Types

This Glossary contains basic lighting terminology. Technical terminology as used in these Guidelines is per professional and industry standard definitions. (Words in definitions in *bold italics* are defined in the Glossary.)

ACORN STYLE FIXTURE - A post - top streetlight fixture in use on the Riviera and Loma Alta Drive. These traditional fixtures typically are low-wattage *HPS* with globes that diffuse the light source, but do not direct light towards the ground, nor control upward light emission, and therefore are not in compliance with *Title 24 Lighting*



Standards for new installations. Newer fixture designs are available that use reflectors and/or refractors to control light and may comply with *Title 24 Lighting Standards*. Where used, new fixtures should emulate the details and simplicity of the originals as closely as possible. (See *City Streetlight Map*, Appendix F, for locations.)

AMBIENT LIGHTING - The general character and overall level of illumination in a particular area.

CARRILLO STREET FIXTURE - A historic fixture style that exists on Carrillo Street from Chapala Street to Olive Street. (See *City Streetlight Map*, Appendix F, for locations.)

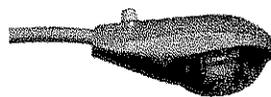


CHAPALA STREET FIXTURE - A historic style fixture that exists on Chapala Street from Montecito Street to Victoria Street. (See *City Streetlight Map*, Appendix F, for locations.)



CITY STREETLIGHT MAP - A map of the City that identifies the location of existing streetlighting, depicted with a graphic reference to types of street and pedestrian lights and poles. The map shall be updated periodically to reflect additional installations and changes, and is intended for use by the City's Boards and Commissions to understand the context of applications before them. (Appendix F of these guidelines. They are available at the Public Works Department permit counter)

COBRA HEAD FIXTURE - A generic type of *luminaire* used for general roadway lighting, attached to an arm which is mounted to the pole.



These fixtures are the most extensively used in the City and are found on *Marbelite* poles, *SCE poles*, and some metal poles. Newer models of *cobra head* fixtures are *cut-off* type. (See *City Streetlight Map*, Appendix F, for locations.)

CUT-OFF FIXTURE - (See also *Full Cut-off Fixture*) A lighting fixture that does not allow *Direct Upward Light Emission*, but does not provide as complete cut-off as a *Full Cut-off Fixture*.

DESIGN REVIEW BOARD - Projects in the City involving lighting may require review and approval by the appropriate Design Review Board: the Architectural Board of Review, the Historic Landmarks Commission, or the Single Family Design Board. The project may also require review by the Planning Commission.

DIRECT UPWARD LIGHT EMISSION - Light rays that are emitted from a fixture that are above a horizontal plane intersecting that light source or fixture.

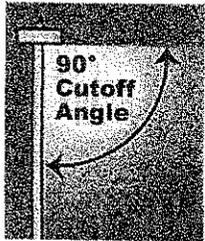
DOME STYLE FIXTURE - A *cut-off* style of *luminaire* that incorporates *optical* elements to direct light down and has a flat-glass lens that minimizes *glare*. (See *City Streetlight Map*, Appendix F, for locations.)



EL PUEBLO VIEJO (EPV) - A historic district of Santa Barbara defined in Municipal Code Section 22.22. (See *City Streetlight Map*, Appendix F.)

FLUORESCENT - An energy efficient light source available in a wide variety of shapes and sizes, from linear tubes to compact forms that are a replacement for *incandescent* lamps.

FULL CUT-OFF FIXTURE - (See also *Cut-off Fixture*)



A lighting fixture constructed so that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by

reflection or refraction from any part of the fixture, is projected below the horizontal as determined by photometric test or certified by the manufacturer. Any structural part of the light fixture providing this shielding must be permanently affixed.

GLARE - Brightness in the field of view that is sufficiently greater than the amount to which the eye is adapted, causing annoyance, discomfort, or loss of visual performance and visibility.

HID - High Intensity Discharge (HID) lamps include High Pressure Sodium (HPS), Metal Halide (MH), and Mercury Vapor (MV).

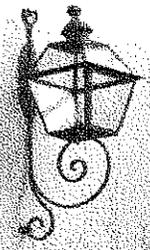
HIGH PRESSURE SODIUM (HPS) - An energy-efficient light source that has a pinkish-yellowish cast. Deluxe HPS lamps have an improved whiter color.

INCANDESCENT - Includes low-voltage lamps and halogen lamps. Historically used for outdoor lighting, especially in lanterns. Incandescent lighting is the least energy-efficient source and is of limited use for outdoor lighting.

INDUCTION LIGHTING - A new lighting technology, characterized by long life, energy efficiency, and a white light that is not as yellowish as *High Pressure Sodium*, nor as bluish as *Metal Halide*.

INTERNATIONAL DARK-SKY ASSOCIATION - "The mission of the International Dark-Sky Association (IDA) is to preserve and protect the nighttime environment and our heritage of dark skies through quality outdoor lighting." The IDA website (www.darksky.org) offers information on lighting techniques and preventing light pollution.

LANTERN - The historical fixture type for lighting and may be mounted to a wall, suspended from a ceiling, or atop a pole (see also *Carrillo Street Fixture* and *State Street Fixture*).



LED (LIGHT EMITTING DIODE) LIGHTING -

A type of energy-efficient lighting currently installed in the City's traffic signal system. It is expected that advances in the technology of LED lighting will include bringing greater light output and better quality white light, opening up more applications for streetlighting and other exterior lighting.

LIGHT TRESPASS - Light produced by a fixture that illuminates a surface beyond the boundaries of the property on which it is located.

LUMINAIRE - The term is used interchangeably with "Fixture" in these guidelines and is the complete light fixture assembly comprising the lamp, electrical components, *Optics*, lenses, and housing.

MARBELITE POLE - The Marbelite Company no longer exists, but the term "Marbelite" is used generically for concrete poles with variations of color and texture achieved through combinations of colored marble-chip aggregate and plain or colored cement, which may also be sandblasted or receive protective coatings. Marbelite poles approved for use in the City are specified in the *Public Works Construction Standard Details*.

METAL HALIDE (MH) - An energy-efficient light source that has a bluish cast.

MOUNTING HEIGHT - Pedestrian light fixtures are usually mounted at a height of 14 feet. Streetlights in the City are generally mounted on a commercial pole which is 29' tall or on a residential pole which is 20' tall. This information is specified in the *Public Works Construction Standard Details*.

OPTICS, OPTICAL - Components of a *luminaire* that control and direct light from the lamp. Reflectors are often used when the lamp position is concealed from normal viewing angles. Refractors are textured glass or plastic components surrounding the lamp that act as many prisms to bend light. See *Cut-off Fixture* illustration.

PEDESTRIAN LIGHT FIXTURE - A *luminaire* of a smaller scale than streetlight fixtures that is intended to illuminate the pedestrian path of travel. These fixtures may be attached to the same pole as a streetlight but on the sidewalk side, or on intermediate poles of a smaller scale to fill in between streetlights and provide more even illumination and security for pedestrians. They may also be attached to undercrossings and bridges. See *Public Works Construction Standard Details* for specifications.

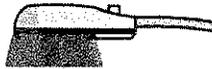
PUBLIC WORKS DIRECTOR - The Director or his designee, which may include the City Engineer or the Facilities and Energy Manager.

PUBLIC WORKS CONSTRUCTION STANDARD

DETAILS - A booklet of construction design standards and details approved by the Public Works Director, officially titled City of Santa Barbara Public Works Department Construction Standard Details.

SCE POLE AND FIXTURE - A pole, generally wooden, owned by Southern California Edison (SCE) that supports overhead utilities and is frequently equipped with a SCE-owned **Cobra Head** fixture.

SHIELD (EXTERNAL) - Additional shielding may sometimes be required on luminaires installed adjacent to residential uses to prevent **light trespass**. Shielding on street-lights is provided and installed by the City on a case-by-case basis.



SKYGLOW - The adverse effect of brightening the night sky due to man-made lighting, caused either by **direct upward light emission**, light reflected off illuminated surfaces, or scattering due to haze.

SOLAR - As solar technologies evolve, applications may include streetlights having photovoltaic panels remotely located, such as on a roof, that can supply energy to a group of streetlights.

STATE STREET FIXTURE - A historic fixture style that exists on State Street from Cabrillo Boulevard to Micheltorena Street, Carrillo Street from Chapala Street to US 101, generally in the first block on either side of State Street in the downtown core, and some locations on Cabrillo Boulevard. (See **City Streetlight Map**, Appendix F, for locations.)



STREETLIGHT - The entire assembly of pole, mounting arm (where applicable) and **luminaire**. Streetlights illuminate the road and vary between 16-29 feet in height. This information is specified in the **Public Works Construction Standard Details**.

TEARDROP LIGHT FIXTURE - A fixture style that is primarily used at intersections, generally in the downtown area. (See **City Streetlight Map**, Appendix F, for locations.)



TITLE 24 LIGHTING STANDARDS - Title 24, Part 6 of the California Code of Regulations: Energy Efficiency Standards for Residential and Nonresidential Buildings. It specifies requirements for luminaire type and efficiency, controls, and light distribution. The standards & compliance manuals are available at <http://www.energy.ca.gov/title24/>

E. City of Santa Barbara Outdoor Lighting Ordinance

Excerpted from City of Santa Barbara Municipal Code, Title 22. Begins on following page.

Chapter 22.75

OUTDOOR LIGHTING

Sections:

22.75.010	Purpose.	22.75.060	Control of Nuisance Lighting In and Adjacent to Residential Zones.
22.75.020	Definitions.		
22.75.030	Certain Lighting Prohibited.		
22.75.040	Certain Lighting Exempted.		
22.75.050	Outdoor Lighting Review by the Architectural Board of Review, the Single Family Design Board, and the Historic Landmarks Commission.		

22.75.010 Purpose.

In order to preserve and enhance the unique qualities of Santa Barbara's residential neighborhoods and its visual environment, it is essential to encourage the highest quality of outdoor night-time lighting through the adoption of lighting standards.

This ordinance is intended to reduce problems created by improperly designed and incorrectly installed outdoor lighting, particularly in the City's residential zones. It is intended to provide for safety and security concerns, without contributing to the problems associated with glare, light trespass, or skyglow, and to promote the efficient use of energy.

This ordinance establishes certain regulations and design review requirements intended to limit the uses of outdoor lighting to certain appropriate land uses and to prohibit the use of certain lighting fixtures.

This ordinance recognizes the benefits of outdoor night-time lighting and provides clear guidelines for its design and installation to help maintain and complement Santa Barbara's character. (Ord. 5035, 1997.)

22.75.020 Definitions.

For the purposes of this Title, the following words and phrases shall have the meanings set forth herein:

- A. **ADJACENT.** Immediately next to.
- B. **AMBIENT LIGHTING.** The general character and overall level of illumination in a particular area.
- C. **DIRECT UPWARD LIGHT EMISSION.** Light rays that are emitted from a fixture that are above a horizontal plane intersecting that light source or fixture.
- D. **GLARE.** Brightness in the field of view that is sufficiently greater than the amount to which the eye is adapted, causing annoyance, discomfort, or loss of visual performance and visibility.
- E. **LASER LIGHTS.** A laser source light, or any similar high intensity light, used for outdoor advertising or entertainment, when projected above the horizontal.
- F. **LIGHT SOURCE.** Any man-made light source, or collection of light sources that produce light by any means.
- G. **LIGHT TRESPASS.** Light produced by a Lighting Fixture that illuminates a surface beyond the boundaries of the property on which it is located.
- H. **LIGHTING FIXTURE.** A complete unit consisting of a Light Source together with a housing and parts designed to distribute and aim the light, located outside a building, including but not limited to, fixtures attached to any part of a structure, located on the surface of the ground, or located on free standing poles.
- I. **LOW VOLTAGE.** Operating at 24 volts or less or as defined by Section 551-2 of the National Electrical Code (1993 edition) or as such Code is subsequently amended from time to time.
- J. **NUISANCE LIGHTING.** Includes, but is not limited to, Glare, Light Trespass, and Skyglow.
- K. **OUTDOOR LIGHTING.** The night time illumination of an outside area or object, or any man-made light emitting object located outdoors.
- L. **OUTDOOR RECREATIONAL COURT.** Includes, but is not limited to, a field, court, or other area, whether permanent or temporary, designed or used for playing any sport or game, such as tennis, volleyball, basketball, or badminton, or similar outdoor game or sport, but not including lighting for a swimming pool which is located beneath the surface of the water.
- M. **SEARCHLIGHT.** A mobile or fixed projector designed to produce an approximately parallel beam of light which is aimed above the horizontal plane, the use of which includes, but is not limited to, advertising for special events.
- N. **SHIELDED.** A Lighting Fixture having a configuration of the housing or optics that prevents a direct view to the light source from normal viewing angles (i.e., less than 20° above the horizontal plane).
- O. **SKYGLOW.** The adverse effect of brightening of the night sky due to man-made lighting. (Ord. 5035, 1997.)

22.75.030 Certain Lighting Prohibited.

A. **GENERAL PROHIBITIONS.** The use of the following Lighting Fixtures shall be prohibited in all zones of the City:

1. Mercury vapor and low-pressure sodium fixtures and lamps except when used for landscape lighting accent purposes.
2. Searchlights, Laser Lights, or similar high intensity outdoor lights except pursuant to a special lighting event permit granted pursuant to subsection C hereof.
3. Lighting Fixtures mounted in such a way as to illuminate a roof or an awning.
4. Lighting Fixtures mounted to aim light only towards a property line.
5. Lighting Fixtures mounted in a way that is distracting to motorists or in a way that interferes with the safe operation of a motor vehicle, as may be determined by the City Engineer.
6. Lighting that is blinking, moving, or which changes in intensity except small temporary lighting fixtures installed and used only during the period between the last week of November and first week of January of the following year.

B. **OUTDOOR RECREATIONAL COURT LIGHTING IN RESIDENTIAL AREAS.** The lighting of an Outdoor Recreational Court is prohibited in all residential zones of the City except where such a Court is located on a property used for non-residential purposes in accordance with the applicable provisions of Title 28 for non-residential uses in residential zones.

C. **SPECIAL LIGHTING EVENTS.** Upon the application of a property owner or a business within the City, the Community Development Director may grant a temporary permit for the use of a searchlight, laser light or other similar lighting fixture for a period not to exceed eight (8) consecutive hours, provided that no such permit shall be granted for any one property (or business location) within the City more often than five (5) times during any 180 day period and provided further that in no case shall a searchlight, laser light, or other similar lighting fixture be operated pursuant to such a permit between midnight and sunrise. (Ord. 5035, 1997.)

22.75.040 Certain Lighting Exempted.

The use of the following Lighting Fixtures and Light Sources are exempted from regulation pursuant to this Chapter:

A. **LOW VOLTAGE FIXTURES.** Low Voltage lighting except for those Fixtures regulated pursuant to subsection 22.75.030A(6) above.

B. **CONTROLLED FIXTURES.** A Lighting Fixture controlled by a motion detector in a residential zone provided the motion detector is predominantly in the off mode and it is installed to minimize Nuisance Lighting. (Ord. 5035, 1997.)

22.75.050 Outdoor Lighting Review by the Architectural Board of Review, the Single Family Design Board, and the Historic Landmarks Commission.

Those projects for which design review is required by the Architectural Board of Review pursuant to Chapter 22.68, the Single Family Design Board pursuant to Chapter 22.69, or the Historic Landmarks Commission pursuant to Chapter 22.22, shall also be reviewed for consistency with the City Outdoor Lighting Design Guidelines approved by resolution of the City Council. (Ord. 5416, 2007; Ord. 5035, 1997.)

22.75.060 Control of Nuisance Lighting In and Adjacent to Residential Zones.

A. **GENERALLY.** Outdoor lighting in residential zones and outdoor lighting on real properties adjacent to residential zones shall be designed, installed, and operated so that it is compatible with the ambient lighting of the neighborhood in which it is located. Such lighting shall be designed, installed, and operated to control glare, prevent light trespass onto adjacent areas, minimize direct upward light emission, promote effective security, avoid interference with safe operation of motor vehicles. The minimum intensity needed for the intended purpose shall be used.

B. **ENFORCEMENT.** The staff of the Community Development Department shall be responsible for the enforcement of this Section provided, however, that enforcement shall occur only upon a written complaint and upon a determination by City enforcement staff that the light or lights constitutes Nuisance Lighting which is unreasonably and negatively affecting a neighboring resident. Upon such a determination, the light or lights shall constitute a public nuisance which may be abated by the City and which, if necessary, may be enjoined by a court of competent jurisdiction.

C. **ENFORCEMENT MEASURES.** Prior to the initiation of legal measures for the enforcement of this Section, the staff of the Community Development Department shall attempt to remedy a reasonable complaint concerning Nuisance Lighting by recommending or, if necessary, by requiring the property owner of the property from which the light emanates to take appropriate steps to eliminate the Nuisance Lighting. Such steps may include, but are not limited to, each of the following (or any combination thereof) in the priority listed herein:

1. The use and application of appropriate lighting equipment, fixture locations, shielding, light sources and illumination intensities, and through the elimination of unnecessary lighting.

2. Nuisance Lighting control through the use of vegetation, landscaping, fences or similar screening methods and fixture aiming adjustments.

3. Restrictions on the hours of operation or by requiring the use of motion detector switches or timers to trigger the lights only on an as needed basis.

4. The preparation and implementation of a professional lighting plan designed to avoid Nuisance Lighting which plan is reviewed by and acceptable to the Architectural Board of Review or the Historic Landmarks Commission, as applicable.

D. **PRIVATE RIGHT OF ACTION.** Any aggrieved person may enforce the provisions of this Section by means of a civil action seeking injunctive relief in a court of competent jurisdiction.
(Ord. 5035, 1997.)





OUTDOOR LIGHTING AND STREETLIGHTING GUIDELINES

DRAFT – DRAFT – DRAFT - DRAFT

Summary of Changes

General

- ◆ The new Streetlighting Design Guidelines have been incorporated together with an update of the 10-year-old Outdoor Lighting Design Guidelines. The committee working on this project felt it made more sense to have a "one source" document for the City's lighting requirements, which necessitated updating the Outdoor Lighting Guidelines at the same time.
- ◆ In addition to the previous review of the Streetlighting Design Guidelines at the City's boards and commissions, a publicly noticed meeting was held with invitations sent out to lighting designers, electrical engineers, manufacturers' representatives, etc., to solicit input on the development of the Streetlighting Guidelines and revisions to the Outdoor Lighting Design Guidelines.
- ◆ While some felt the document could be considerably shorter if redundant information was removed, it was generally agreed that the existing format that allows users, whether they be designers, reviewers, or staff, to find all the information needed in any given section, was useful and reflected the reality of its use.
- ◆ The new guidelines format has an Introduction, statement of Objectives, and path to Compliance, followed by two major subdivisions: the updated Outdoor Lighting Guidelines and the new Streetlighting Guidelines. These are followed by Appendices, including a glossary with illustrations, the text of the Outdoor Lighting Ordinance from the Municipal Code, and proposed compliance statement forms.
- ◆ The Introduction adds new language that "recognizes that industry standards for recommended minimum light levels may not be compatible with or appropriate for the aesthetic standards of the City". In conjunction with this statement, City Council will be requested to petition the California Energy Commission to categorize Santa Barbara in Lighting Zone 2 (LZ2), instead of the current LZ3, which is the same as Los Angeles.
- ◆ The Introduction also adds statements of intent regarding streetlighting.
- ◆ The Objectives statement emphasizes energy conservation and preserving the quality of the night sky, as well as objectives for streetlighting.
- ◆ The new section on Compliance suggests an approach to better compliance, recognizing that in the 10 years since the ordinance and guidelines were implemented, very few design reviewers or staff are aware of its requirements (or even existence), let alone being trained in its application. While it is important that a staff person be designated and trained to review applications for compliance, this proposed approach puts the responsibility on the preparer of the plans to certify that they have familiarized themselves with the Ordinance and Guidelines, and that the plans submitted comply. While no approach is likely to avoid all potential problems with lighting installations, it is hoped that this approach will not only make preparers of lighting plans more thoughtful about the City's requirements, but also be a useful tool should enforcement be required. Appendix C proposes compliance statements to be included on lighting plans for both Outdoor Lighting and Streetlighting projects.
- ◆ A checklist is proposed to be prepared for use by design review bodies and staff to aid in effective review of applications. This will be specific to project type, i.e. parking lot, gas station, etc., and will serve as a reminder of what to look for, or ask for, on the plans, with references to the appropriate section of the Guidelines for more specific information.

OUTDOOR LIGHTING & STREETLIGHTING DESIGN GUIDELINES

Outdoor Lighting

- ◆ The requirement for "cut-off" lighting fixtures was generally changed to "full cut-off" to promote energy efficiency and dark-sky objectives.
- ◆ High Pressure Sodium (HPS) lighting was retained as the standard for parking lots, while use of Metal Halide was discouraged. However, the document recognizes newer and other lamp technologies may be acceptable if warm color quality can be demonstrated.
- ◆ The statement was added that fixtures with adjustable aiming angle are generally not allowed. This occurs in sections on parking lots, auto sales lots and gas stations, and security lighting.
- ◆ Additional information was added regarding lantern-type fixtures used for area lighting. They were previously limited to 100 watts, but now require techniques to shield view of the lamp unless they are cut-off or low wattage. This applies to parking lots, gas stations, etc.
- ◆ The statement requiring photocell and timer controls which occurs in various sections was changed to "controls as required by Title 24 Lighting Standards" since they are now a State requirement.
- ◆ The statement regarding required illuminance levels was changed for parking lots from "a maximum of 3 foot-candles, average" to "Average horizontal illuminance should target 1 foot-candle, measured at ground level, but should in no case exceed 1.5 foot-candles". Maximum to minimum uniformity ratio was changed from 7:1 to 5:1.
- ◆ The ordering of several items was changed in the parking lot guidelines, and the note regarding additional requirements was moved to reflect a more logical order.
- ◆ An entirely new section was added on parking garages, because design board experience has shown that they occur more commonly now than when ordinance and guidelines were written 10 years ago. Primarily, this section focuses on a "transition" zone that occurs at the garage entrance recognizing a complex lighting problem: During the day, the entrance needs to be brighter than the garage interior to allow your vision to transition from bright daylight to the dim interior; but at night the opposite conditions exist, and your vision needs to transition from dim streetlighting to relatively bright garage interior. This is addressed with a requirement for controls to manage this dual lighting level. This section also requires that garage lighting be shielded from view. This section makes a foot-candle plot mandatory for the area from the garage entrance to the furthest interior point visible from the street.
- ◆ The section previously titled "Exterior Sales and Service Areas" has been re-titled "Service Stations, Automobile Dealerships, and Exterior Sales Areas". This is to reflect that this section primarily covers the first two uses, and other types of "exterior sales areas" rarely arise. This should help make it easier for users and reviewers to find the appropriate section.
- ◆ Illuminance levels for Automobile Sales have been subdivided into two areas. The previous specification for 70 foot-candles remains for the area now defined as Calle Real, Hope Avenue, and Hitchcock Way. Sales lots in all other areas of the City are limited to 30 foot-candles to assure that small dealerships on Chapala Street and Milpas Street aren't lit to the same levels as the Auto Center dealerships. It is also required that lighting be considered for appropriateness with the ambiance of the neighborhood.
- ◆ A statement has been added to discourage the lighting technique, sometimes employed on auto sales lots, that positions lighting to increase reflections from windshields in order to attract more attention, the consequence of which is more nuisance glare.
- ◆ An entirely new section was added on ATM machines. It mainly discourages more lighting than State law requires and addresses glare and compatibility with architecture. It also encourages small-size machines and minimal signage. The intent of this section is to discourage the use of ATMs as visual competition and as a means of attracting attention to a particular financial institution.
- ◆ Landscape and Building Lighting section has minimal changes, except for statement calling attention to compact fluorescent lamps (CFLs) used in traditional fixture types (lanterns) where the lamp is exposed to view. It requires the use of a diffusing shade, diffusing glass panels, or lamp shape resembling traditional incandescent.
- ◆ Security Lighting section remains unchanged except for a statement discouraging fixtures with adjustable aiming angle.

OUTDOOR LIGHTING & STREETLIGHTING DESIGN GUIDELINES

Streetlighting and Pedestrian Lighting

- ◆ This section has probably changed little in content since last reviewed by the Boards and Commissions. The information has been formatted for consistency with the Outdoor Lighting Guidelines. It is primarily a statement of objectives covering energy efficiency, ambiance, establishment of "opportunity corridors", neighborhood identity, and reasonable standardization to control maintenance costs.
- ◆ It provides a framework for the Public Works (PW) Department and the design review boards and commissions to agree upon solutions for given situations in order to streamline PW's approval process. These understandings would be reflected on the "City Streetlight Map" which would be updated by PW and in their "Public Works Construction Standard Details" manual.
- ◆ This section also provides a framework for review and approval of pedestrian lighting, which are the fixtures and poles usually of a similar style but smaller scale than streetlights, and installed at a lower height and closer spacing than streetlighting.

Appendices

- ◆ This section includes information on exceptions and references to other documents that was previously located elsewhere in the original Outdoor Lighting Guidelines.
- ◆ Proposed compliance statement forms are contained in Appendix C, with two versions as appropriate for architectural lighting projects as reviewed by Planning staff versus streetlighting projects as reviewed by PW staff.
- ◆ A comprehensive glossary has been added which provides useful information on common lighting terminology, descriptive information about design review boards and city agencies, and illustrations of common fixture types found in Santa Barbara.
- ◆ Appendix E excerpts the text of the Outdoor Lighting Ordinance from the Municipal Code. It is included to facilitate access to this information by designers, rather than having to find it on the City's website. It is proposed that in a print version of these Guidelines, a statement could advise readers to check the City's website for revisions to the ordinance. In an online version of the Guidelines, there would simply be a link to that URL.
- ◆ Appendix F is the Public Works Department's "City Streetlight Map" which is indicated as being available at the PW permit counter. It is a 24"x36" document, and was not considered necessary to include in copies of the actual Guidelines.

