



CITY OF SANTA BARBARA

PLANNING COMMISSION STAFF REPORT

REPORT DATE: March 6, 2006

AGENDA DATE: March 9, 2005

SUBJECT: CITY STREETLIGHT GUIDELINES ADVISORY GROUP REPORT

TO: Planning Commission

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

Executive Summary

The City of Santa Barbara's (City) streetlight issues have been periodically discussed in detail at 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 the City fiscal impacts pertaining to the maintenance of the poles and fixtures. In response to these ongoing concerns, over the years Public Works staff (staff) has had several discussion meetings with the Planning Commission (PC), the Historic Landmarks Commission (HLC) and the Architectural Board of Review (ABR). Initial discussions identified key streetlight related issues. However, no formal action by the PC or any other City entity had been taken. Further, there appeared to be consensus that it would be worthwhile to elaborate on the current limited guidelines, as appropriate, to efficiently review and administer streetlight related work.

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" light fixture, and the 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

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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. Not included is the small inventory of Caltrans owned streetlights at freeway on and off ramps.

Current Status

On March 22, 2005, Council formally established a City Streetlight Guidelines Advisory Group (Advisory Group) to evaluate related issues and propose recommendations for Council to consider for adoption. The Advisory Group consists of representatives of the Council, ABR, HLC, PC, the Transportation and Circulation Committee (TCC), and staff. The Advisory Group members include:

- Brian Barnwell, Councilmember
- Dawn Sherry, ABR
- Steve Hausz, HLC
- Stella Larson, PC
- Keith Coffman-Grey, TCC
- Mike Grimes, Facilities Maintenance Manager
- John Ewasiuk, Principal Civil Engineer

The Advisory Group has met regularly over the past several months. Public participation has been encouraged. The Advisory Group meetings have been posted and are subject to the regulations of the Brown Act.

The goals of the Advisory Group are listed below:

- a) Review established lighting in 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.

An Advisory Group Progress Report is included as Exhibit 1. The Progress Report includes 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 as Exhibit 2 is a City Streetlight Map (Map) that identifies the current streetlight inventory and their locations within the City. The Map also includes limited alternative poles and light fixtures for consideration.

Within the past month, the Advisory Group has made similar presentations to the HLC, TCC, and ABR, and has requested their input and comment. The minutes of the February 22, 2006 HLC meeting are included as Exhibit 3. The minutes from the ABR and TCC meetings will be distributed to the Planning Commission as they become available.

Fiscal Issues

Limited funds are available in the City's Streets Capital Improvement Program (CIP) budget for streetlight-related improvements other than routine maintenance. The approved Fiscal Year 2006 and proposed Fiscal Year 2007 Streets CIP budgets do not include any significant expenditures above and beyond conventional and historic routine maintenance, including painting of existing metal poles. Any proposed significant future improvements would compete with available Streets Capital funds.

Next Steps

The Advisory Group will compile all comments and recommendations made by the Boards, Commissions, and the public. The Advisory Group will draft guidelines and recommendations, then return to the Boards and Commissions for final comments and concerns. The Advisory Group will then finalize guidelines and recommendations for the City Council's consideration. It is anticipated that the final report and recommendations will be brought before Council for consideration in May 2006.

JE/cc

Exhibits:

1. Advisory Group Progress Report Dated February 8, 2006
2. City Streetlight Map
3. Minutes from HLC meeting of February 22, 2006

PROGRESS REPORT OF THE STREETLIGHT ADVISORY GROUP
(Updated February 8, 2006)

These are the goals given to the Streetlight Guidelines Advisory Group per the March 22, 2005 Council Agenda Report, followed by a summary of the work of the Advisory Group to date. The purpose of our presentation to you is to discuss our progress to date, and collect your feedback to build upon our work so far.

- A. Review established street lighting in City and identify issues and recommend improvements.**
- B. Establish street light 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.**
- E. Draft street light guidelines for Council’s consideration.**

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A. Review established lighting in City and identify issues and recommend improvements.

Existing streetlighting in the City has been reviewed and analyzed. Staff has developed a City Streetlight Plan and Map that indicates the different streetlight pole and fixture types and their locations and extents. The following issues have been identified by Staff and the Advisory Group, with a statement of goals and recommendations to implement them. Streetlight Guidelines per Goal “E” will be developed from these recommendations.

1. Issue: Light Pollution

Goal: Light pollution shall be minimized.

Recommendation:

- To the maximum extent feasible streetlight fixtures shall avoid emitting light upward or towards adjacent residences, and shall minimize glare.

2. Issue: Energy Efficiency

Goal: New and retrofitted existing light fixtures shall be as energy efficient as feasible.

Recommendation:

- The City should be at the forefront of utilizing new technologies when they can be aesthetically integrated, including energy efficient light sources and solar energy.

3. Issue: Neighborhood Compatibility

Goal: 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.

Recommendation:

- Continue with development of a City Streetlight Plan and Map which indicates the locations of the different types of streetlighting in the City's inventory keyed to a pictorial index, with indication of appropriate types for new and future installations.
- Determine a threshold for changes to existing types to be consistent with the Plan, i.e. new developments, changes involving an increment of one block or more, etc.

4. Issue: Aesthetics

Goal: Establish standard details for pole and fixture combinations to facilitate implementation of the City Streetlight Plan and to expedite and standardize the approval process.

Recommendation:

- Review standard manufactured products for poles and fixtures.
- Work with manufacturers to determine economic feasibility of developing customized variations of their product to integrate with our aesthetic objectives.
- Make presentations to the Architectural Board of Review, Historic Landmarks Commission, Transportation Circulation Committee, and Planning Commission with recommendations for standard pole and fixture combinations and variations.
- Integrate approved standard details into the City Streetlight Plan and appropriate Public Works Dept. documents.
- Establish Construction Standard Details for traffic signals to integrate with Construction Standard Details for streetlights.

5. Issue: Streetlight Locations

Goal: Develop guidelines to guide staff and review boards for appropriate pole and fixture types and locations. Integrate existing and new guidelines for appropriate locations of streetlights and requests for new streetlights.

Recommendation:

- Continue to develop the City Streetlight Plan and Map to identify existing patterns of streetlight type and location, such as by neighborhood or corridor.
- Make recommendations for extending existing types where appropriate for visual continuity and to define circulation corridors.

- Develop strategy for replacing existing types incrementally to upgrade installations.
- Identify “Opportunity Corridors” where anticipated future facility upgrades present an opportunity to establish a new character for major streets (i.e., Anacapa Street, Santa Barbara Street).
- Encourage the use of streetlights as an element to establish the character of neighborhoods, as distinguished from arterial streets, while respecting the objectives stated in Goal #6.

6. Issue: Implementation and Maintenance

Goal: Maximize improvements in aesthetics, functionality, energy efficiency, and maintenance by the most cost-effective means. Simplify, standardize, and expedite the approval process.

Recommendation:

- Standardize pole and fixture styles to facilitate simpler review by design review boards and to minimize inventory maintained by the City.
- Establish the use of colored, textured concrete poles for new and replacement installations to minimize maintenance costs, except where it is determined to continue the use of decorative cast metal poles in existing corridors, as determined to be appropriate.
- Review existing and new lighting and solar technologies to minimize energy costs and lamp replacement maintenance costs.

7. Issue: Pedestrian Lighting

Goal: Enhance safety and security for pedestrians while adding a pedestrian-scale element to streetscapes.

Recommendation:

- Update City Construction Standard Details for attachments to streetlight poles, as well as individual pedestrian poles and fixtures that could be installed between streetlight locations or where no lighting currently exists.
- Develop guidelines for pedestrian lighting for residential and commercial areas, including issues such as spacing, illumination levels, mounting heights, etc.

B. Establish lighting styles in areas where none exist.

Discussion:

The City Streetlight Map indicates established streetlight styles and their locations throughout the City, keyed to a pictorial legend of pole and fixture types.

Some streets are designated with a colored linear marking to emphasize the location of a corridor, or fixtures of limited extent.

Some areas of the City are designated with a hatched area to indicate an existing consistency of pole and fixture type. These areas may also contain isolated instances of other pole and fixture types and may be so indicated with a linear or spot marking.

Map areas shown as white, generally speaking, are an inconsistent mix of pole and fixture types and are the prime focus of policy to be developed for installation of new or replacement streetlights.

1. In areas where streetlighting is not established, recommend a decorative concrete pole with a color as close to Málaga green as possible, with the "Dome Style" fixture for conventional roads. Recommend consideration of "Acorn Style" fixture for narrow roads (less than 24 feet wide) where aesthetically appropriate to neighborhood context.
2. When discretionary project applications are reviewed by the City, the City shall consider the addition of new street lighting as deemed appropriate. To the maximum extent feasible discretionary projects shall include the addition of new street lights in accordance with City regulations and the City Streetlight Plan. It is expected that the installation of the new streetlight style(s) will be incremental. City funded infill of new street light shall be considered as funding allows as determined by City Council.

C. Recommend additional luminaires and poles, as deemed appropriate, to increase the City inventory.

Discussion:

Staff and the Advisory Group members discussed options available for variety in pole and fixture types, materials, colors, and light source; and initial cost vs. maintenance considerations.

The consensus was that it would be more desirable to have a limited number of fixture and pole styles to choose from, rather than adding many more. There were several reasons for this, but one of the strongest was the cost to the City to maintain an inventory of replacement parts for an increased number of styles. Another was that, despite the myriad fixtures in catalogs, a limited few stand out

as appropriate to Santa Barbara, and these are the ones frequently chosen by review boards.

Another important issue was that, despite the good intentions of all involved, fixtures get approved that contribute to glare and skyglow, and cast unwanted stray light into adjacent residences.

In our discussion of poles, we considered the cost to the City of the labor-intensive work of repainting decorative cast metal poles every (*number*) years, and decided that we should move in the direction of exposed-aggregate concrete poles in a color as close as possible to the Málaga green paint color currently used on metal poles. The exception would be that existing uses of the metal poles that contribute to defining the aesthetics of important corridors and historic districts would be continued, including any possible expansion or extension of those areas.

The issue of lighting where the need is primarily for pedestrians was also discussed. In order to accommodate this need, it was determined to add to the inventory a smaller-scale fixture that would coordinate with streetlighting fixtures, and a bracket attachment to streetlighting poles, where applicable, or to a separate appropriately scaled pole.

Issues to be discussed and resolved include:

1. The limited number of new pole and fixture styles that should be considered to minimize inventory costs.
2. The replacement of any existing poles with a new style of concrete pole.
3. Whether concrete poles should match the existing Marbelite poles, or use a different aggregate with gray cement, or use colored cement to match Málaga green.
4. Whether the "Dome Style" fixture shall be added to the City Street Light Construction Standards inventory.
5. Whether a smaller "Dome Style" fixture shall be added to the City Street Light Construction Standards inventory for pedestrian lighting.
6. Whether use of the "Acorn Style" fixture should be expanded beyond its current in the Riviera and Loma Alta, and whether it should be replaced with a similar style that contributes less to sky-glow.

D. Evaluate fiscal impacts pertaining to maintenance and proposed improvements.

1. The proposed recommendations include minimizing the number of alternate poles and fixtures thus allowing for economies of scale for maintaining and storing parts and supply.

2. Consideration shall be given to install more efficient light sources as future budgets allow, including induction lighting.
3. As budgets allow, solar streetlight systems or other technological advances shall be explored and incorporated. New lighting technologies are expected to offer substantial energy savings over time. Solar streetlighting, if opportunities allow, would not have solar panels mounted on the streetlight pole, but would be fed by a remote source, concealed from view, serving multiple fixtures.

See the separate report from the City Facilities Manager for a more comprehensive discussion of this topic.

E. Draft streetlight guidelines for Council's consideration.

Subject to your review of this report and subsequent assimilation of all comments received, and approval of the final recommendations of the Advisory Group, draft guidelines will be developed for your approval and approval by City Council.

GLOSSARY OF LIGHTING TERMS AND STREETLIGHT TYPES

Carrillo Street Fixture – a historic style that exists on Carrillo Street from Chapala Street to Olive Street.



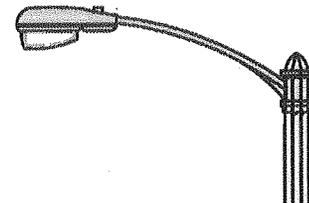
Chapala Street Fixture – a historic style that exists on Chapala Street from Montecito Street to Victoria Street.



City Construction Standard Details – a booklet of construction design standards and details approved by the Public Works Director.

City Street Light Map – a map of the City that identifies the location of existing streetlighting, depicted with a graphic reference to styles and types of street and pedestrian lights. 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.

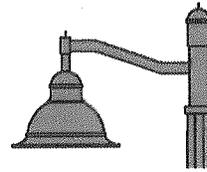
Cobra Head Fixture – a generic type of *luminaire* used for general roadway lighting, attached to an arm which is mounted to the pole. These fixtures are the most extensively used in the City, and are found on the *Marbelite* poles, *SCE* poles, and some metal poles. Newer models of cobra head fixtures are of a *cut-off* type.



Cut-off Luminaire – a luminaire that is

configured to prevent upward illumination.

Dome Style Fixture – a *cut-off* style of luminaire that incorporates optical controls to direct light down, and with a flat-glass lens, minimizes glare.



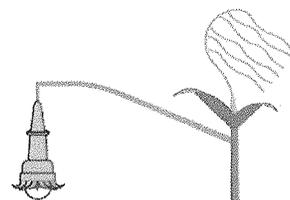
HPS, High Pressure Sodium Lighting – an energy-efficient light source that has a pinkish-yellowish cast.

Induction Lighting – a new lighting technology, not yet in use in the City, 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*.

Luminaire – the complete light fixture assembly, comprising the lamp, electrical components, optics, lenses, and housing.

Marbelite Pole – The Marbelite Company was founded in Los Angeles in 1912 and manufactured concrete poles for streetlights. Though the Marbelite Company no longer exists, most of their patterns are still in production by others. The term “Marbelite” is used generically to describe a concrete pole, 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.

Milpas Street Fixture – A style of street light that exists along Milpas Street from Caciques Street to Quinientos Street.



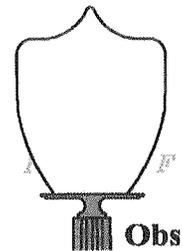
MH, Metal Halide Lighting – an energy-efficient light source that has a bluish cast.

Mounting Height – Pedestrian light fixtures are usually mounted at a height of 16 feet. Streetlights in the City are generally mounted on a Type 'A' pole which is 29' tall, or on a Type 'B' pole which is 22' tall.

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 opposite side, or on intermediate poles of a smaller scale, to fill in between streetlights and provide more even illumination and security for pedestrians. See *mounting height*.

Post-Top Streetlight – a light fixture that attaches directly on top of a pole, as opposed to fixtures that are attached to the pole with an arm.

Riviera (Acorn) Style Fixture – a *post-top* fixture in use on the Riviera and Loma Alta. These fixtures typically are low-wattage *HPS* with a globe that diffuses the light source, but does not direct light towards the ground, nor control upward light emission.



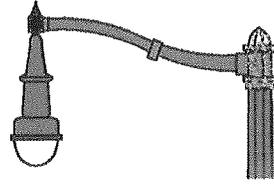
SCE Pole and Fixture – a pole, generally wooden, owned by Southern California Edison that supports overhead utilities, and is equipped with a *Cobra Head* fixture.

State Street Fixture – a historic 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.



Streetlight – the entire assembly of pole, mounting arm (where applicable), and fixture. Street lights generally illuminate the road and vary between 16-29 feet in height.

Teardrop Light Fixture – a fixture style resembling a tear drop that exists primarily at intersections in the downtown core.



Type A Light Standard – see *Mounting Height*

Type B Light Standard – see *Mounting Height*

The City Street Light Map
is included in your packet

Exhibit 3**D. Subcommittee Reports.**

Mr. Hausz gave an update of the status of the application for the traffic signal at Santa Barbara and Ortega Streets. It was continued indefinitely from today's agenda. Mr. Hausz has urged Councilman Barnwell, the Streetlight Subcommittee Liaison, to direct this project to the City Council for guidance to avoid a series of denials by the Historic Landmark Commission.

Mr. Pujo asked if the concept of Caltrans' standard "arm" streetlight is the issue.

Mr. Hausz responded that is the specific issue he is urging City Council to review.

Ms. Boucher asked when the Designation Subcommittee will be meeting.

Mr. Jacobus responded he will schedule a meeting.

F. Possible Ordinance Violations.

No violations reported.

DISCUSSION ITEM**(1:47) JOINT MEETING OF THE HISTORIC LANDMARKS COMMISSION AND THE CITY STREETLIGHT ADVISORY GROUP**

Present: John Ewasiuk, Public Works Principal Civil Engineer
Steve Hausz, Historic Landmarks Commission Member
Michael Grimes, Public Works Facilities Manager

Public comments opened at 1:56 p.m.

Mr. Kellem De Forest expressed concern over the number of streetlights on the City's streetscape and suggested that only a few poles be used for different devices.

Public comments closed at 1:56 p.m.

1) The Commission would like to see further improvements to the Streetlight Maps, (e.g.) showing the harbor streetlights and providing illustrations of the streetlight types with correct proportions and photographs if possible. 2) The Commission feels that concrete poles are not acceptable in the El Pueblo Viejo Landmark District (EPV) and that any new or replacement poles should be traditionally designed and of painted metal. 3) A fixture type with a hood could be considered, but it would need to reflect a traditional design. 4) Other historic districts or special design districts should be given a unique identity through a variation on pole, fixture, or color choices. 5) Where mast arms are used on poles to locate traffic signals over traffic lanes, the configuration previously reviewed, approved, and installed on Carrillo Street is appropriate. 6) The Commission feels that mast arms for traffic signals are not appropriate for narrower streets, such as Santa Barbara Street and Anacapa Street, as they detract from the appearance of the City's streets. 7) The Commission understands that improvements such as referenced above will necessarily be incremental over a long time span, and that it is an acceptable approach to future change.