

1999 AMENDED
CITY OF OAKLAND
STREET LIGHTING WARRANTS

INTRODUCTIONS

The primary purpose of urban street lighting is to produce safe and comfortable vision during the night on public streets and sidewalks.

The benefits of such lighting include reduction of accidents, facilitation of traffic flow, promotion of nighttime operation of businesses and industries, enhanced neighborhoods and/or increased personal safety and security of the public.

OBJECTIVES

The design objective for night illumination of Oakland's streets is to provide a level and quality of street lighting that:

- Promotes and supports safe operation of vehicles at night.
- Enables pedestrians to identify persons and activities at a safe distance.
- Deters unlawful activity.
- Is consistent with practice throughout the country.
- Is efficient and economical in operation.
- Is responsive to the diverse needs of the community.

ILLUMINATION CRITERIA

The illumination criteria for the City's street lighting system is expressed in accordance with the American National Standard Practice for Roadway Lighting, ANSI/IES RP-8, 1983. Using this acceptable methodology, general illumination and uniformity guidelines have been developed to meet the street lighting needs of the City of Oakland.

CLASSIFICATIONS

ANSI/IES RP-8, 1983 Definitions

Roadway Classifications

Major:

That part of the roadway system which services as the principal network for through-traffic flow. The routes connect areas of principal traffic generation and important highways entering the city.

Collector:

The distributor and collector roadways servicing traffic between major and local roadways. These are roadways used mainly for traffic movements within residential, commercial and industrial areas.

Local:

Roadways used primarily for direct access to residential, commercial, industrial or other abutting property. They do not include roadways carrying through-traffic. Long local roadways will generally be divided into short sections by collector roadway systems.

Industrial:

Serves to provide direct access and/or is adjacent to industrial property. Passes through areas zoned for commercial, manufacturing and transportation land use.

Transit Access:

Serves for pedestrian access to Bay Area Rapid Transit (BART) District stations/parking lots and Alameda County (AC) Transit stops.

Area Classifications

Downtown:

A central civic or business area that is densely developed and characterized by high volume of nighttime vehicular and pedestrian traffic and having high-rise buildings.

Commercial:

A business area of a municipality where ordinarily there are many pedestrians during night hours. This definition applies to densely developed business areas outside, as well as within the central part of a municipality. The area contains land use which attracts a relatively heavy volume of nighttime vehicular and/or pedestrian traffic on a frequent basis.

Intermediate:

Those areas of a municipality often characterized by moderately heavy nighttime pedestrian activity such as in blocks having libraries, community recreation centers, large apartment buildings or neighborhood retail stores.

Residential:

A residential development, or a mixture of residential and small commercial establishments, characterized by few pedestrians at night. This definition includes areas with single family homes, town houses, and/or small apartment buildings.

Residential Aesthetic:

Same as residential above but to further enhance the ambiance of a neighborhood.

Crime:

Designated by the Oakland Police Department to be areas where increased street lighting would have a significant impact on deterrence of street crime.

Ornamental:

Areas where decorative luminaries are chosen to enhance the ambiance and provide a more aesthetically pleasing appearance. This classification is a minimum level for the road class. If practical, the higher level set for the type of area (downtown, commercial, intermediate, and residential) is desired.

Note: City staff will determine the appropriate roadway classification for each street segment based on historical practice, area survey, and/or applicable zoning ordinances.

CITY OF OAKLAND					
Street Lighting Guidelines					
Roadway & Area Classification		MINIMUM STANDARDS		OPTIMUM STANDARDS	
		Illuminance (Footcandles)	Uniformity Ratio (Avg. to Min.)	Illuminance (Footcandles)	Uniformity Ratio (Avg. to Min.)
Major	Downtown	2.0	3:1	3.5	2:1
	Commercial	1.6	3:1	2.9	2:1
	Intermediate	1.2	3:1	2.0	3:1
	Residential Optimal (Cobra)	0.8	3:1	1.3	3:1
	Ornamental	0.44	4:1	0.44	4:1
	Ornamental glare reducing	.18	4:1	.18	4:1
	Residential Aesthetic (Cobra)	.35	23:1	.35	23:1
	Ornamental	.22	34:1	.22	34:1
	Ornamental glare reducing	.09	15:1	.09	15:1
Collector	Downtown	1.5	4:1	2.5	3:1
	Commercial	1.1	4:1	1.8	3:1
	Intermediate	0.8	4:1	1.3	3:1
	Residential Optimal (Cobra)	0.6	4:1	1.0	4:1
	Ornamental	.35	4:1	0.35	4:1
	Ornamental glare reducing	0.19	4:1	0.19	4:1
	Residential Aesthetic (Cobra)	0.30	50:1	0.30	50:1
	Ornamental	0.16	31:1	0.16	31:1
	Ornamental glare reducing	0.07	23:1	0.07	23:1
Local	Commercial	0.8	6:1	1.2	4:1
	Intermediate	0.7	6:1	1.1	4:1
	Residential Optimal (Cobra)	0.4	6:1	0.6	4:1
	Ornamental	.25	6:1	0.25	6:1
	Ornamental glare reducing	.15	6:1	0.15	6:1
	Residential Aesthetic (Cobra)	0.2	55:1	0.2	55:1
	Ornamental	.13	31:1	.13	31:1
	Ornamental glare reducing	0.08	23:1	0.08	23:1
Crime		1.5	4:1	1.5	4:1
Industrial		1.4	3:1	1.4	3:1
Transit Access		3.0	2:1	3.0	2:1

Note: All totally new street lighting systems should be designed to the optimum standard level. Where any street segment has a mixture of developments which would lead to a question of classification, the classification having the highest Illuminance Value and the lowest Uniformity Ratio shall prevail

The Residential Aesthetic lighting level is a minimum level. This level generally allows a block to eliminate a maximum of every other light pole that would have been required in a street light design to meet the Residential Cobra or Ornamental area classifications. The block petitioners will need to determine exactly which light(s) they want not installed with the following exclusions:

1. Lights lighting intersections unless exempted by Public Works Agency Traffic Engineers, and
2. No two or more lights consecutively eliminated.
3. Bus stops.
4. Sharp curves.

APPLICATION OF CITY OF OAKLAND WARRANTS

The intent of the Street Lighting Warrants is to provide guidelines for levels of street lighting consistent with the national standards, while recognizing the unique needs of the City of Oakland and the diversity of its community.

The street lighting values expressed above are to be used as a general guideline in the design and maintenance of the City's street lighting system. The guidelines are intended to establish the level of street lighting for each roadway classification. The City may, however, exercise judgement and discretion with regard to specific street lighting applications to ensure that the needs of the community are met and to maximize the effectiveness of the street lighting system.

To request higher levels of lighting, the Oakland City Council authorizes City staff to accept petitions in accordance with the following process. On local residential streets citizens will be notified by mail that they will need to submit petitions requesting to increase existing street lighting level.

Individual Request

- A neighborhood representative must list all properties within the street block(s) by the street addresses and state specific lighting requested on the City petition form provided by the Electrical Division. The City of Oakland's Electrical Division will determine and provide the deadline date to return the petition. The petition can then be circulated by the neighborhood representative to residents for signatures.

- The City petition form must be signed by majority of the residents within a minimum of a block that abuts the street. A block is defined from street intersection to street intersection or a maximum of 800 feet in length. A petition has no maximum limit on the number of blocks or length. Petitions are only acceptable in areas where improvements are planned or the citizen(s) petitioning agree to pay for associated costs of lighting modification.
- The petitioners will then return the petition before the deadline to the Electrical Services Division for implementation. A petition will not be accepted after the deadline date if it impacts cost. Implementation will occur only if funding is available.

Area (Homeowner's Association) Request

- A homeowner's association may submit a request on behalf of its area rather than utilizing the individual petition process. Requests can be given directly to the Electrical Division.

EXCLUSION

When deemed appropriate, the City Council may exclude or modify by resolution certain streets, street segments or areas from the City's street lighting warrants.

DISCLAIMER

Nothing contained in these warrants is intended to establish or create a legal standard or duty toward the public. The warrants embody objectives toward which the City is committed to strive, and the City is not actionable for failures to provide street lighting to meet warrant levels or other objectives, whether by accident, power or equipment failure, act of God, or fiscal constraints.