

EXTERIOR LIGHTING STANDARDS FOR STANFORD UNIVERSITY

Lighting Plan Concept

Campus lighting standards have been developed to assure the safety of those on campus, while respecting established Stanford aesthetics and addressing economical concerns.

Distinctive lighting can strengthen the unity in parts of the campus where architecture, landscape, circulation and use patterns are consistent. Uniformity in the light level, color, and fixture type can also aid in orienting evening travelers by clearly indicating transitions between different types of areas. Circulation routes, campus core, and gathering spaces will be identified by evenly dispersed, color accurate illumination, to enhance pedestrian circulation, nighttime activities, and viewing of historically and architecturally significant buildings and landscapes.

We are currently working towards unifying the lamp types used on campus, to simplify night "color" areas. The objective is to provide uniform light color across similar use areas, identify major corridors, and provide appropriate warm or cool colors to enhance sense of place and highlight architecture. Highly efficient lamps and fixtures are also being investigated. As the campus evolves, additional outdoor lighting needs will develop. These current standards establish a framework for selecting campus lighting fixtures and lamps at present, and may be used as a guide to maintaining existing systems and selecting new components for future needs.

LIGHTING TYPE GUIDELINES					ORDERING SPECIFICATIONS			
LIGHT DESCRIPTION	AREAS AND USES	ON-SITE EXAMPLES	SPACING	LAMP TYPE	CATALOGUE ORDER NUMBER	BASE SIZE	FIXTURE	MANUFACTURER

NOTE: ACCESS THE UNIVERSITY ARCHITECT/CAMPUS PLANNING AND DESIGN WEBSITE, <http://lbre.stanford.edu/architect/> FOR THE MOST CURRENT LIGHTING INFORMATION

ALL FIXTURES SHALL HAVE A BLACK FINISHED COLOR, EITHER APPROVED FACTORY FINISH OR KELLY MOORE 1245-407 CARBON BLACK, LOW SHEEN, WITH 1710 RED OXIDE PRIMER AS APPROPRIATE, OR EQUAL.

LAMP TYPE IS REVIEWED AND APPROVED BY THE UNIVERSITY ARCHITECT AND CAMPUS PLANNING AND DESIGN OFFICE TO MATCH OR CONTRAST WITH ADJACENT LIGHTING COLORS, DEPENDING ON FUNCTION AND CHARACTER OF THE SPACE. WATTAGE LISTED IS A GENERAL GUIDE. PROPOSED WATTAGE FOR EACH PROJECT SHOULD BE CHOSEN TO FIT SPECIFIC SITE CONDITIONS TO ASSURE THAT DESIRED LIGHTING LEVELS ARE PRODUCED.

FOR 150 WATT METAL HALIDE APPLICATIONS, USE METALARC PRO-TECH METAL HALIDE LAMPS BY OSRAM-SYLVANIA RATED AT 15,000 HOURS LIFE, OR PROPOSE LONGER LIFE LAMP

PATHS/PEDESTRIAN AREAS

10' "Capitol" series cast iron/steel pole with white polycarbonate globe top	Campus wide area light for gathering/event spaces and their entry corridors.	WHITE PLAZA	approx 70' on center @ .5 footcandle	100 watt metal halide	10' : PZ C20 10 ANBK; S16A 100M MED PWS TB ANBK	19"	Globe: capitol series	Antique Street Lamps Inc. (512) 295-3585
12' "Capitol" series cast iron/steel pole with white polycarbonate globe top	Pathway and area light in designated corridors, on the east/west axis into the SEQ, and along the north/south axis.	SEQ EAST/WEST AXIS	approx 70' on center @ .5 footcandle average	100 watt metal halide	12' : PZ C20 12 ANBK; S16A 100M MED PWS TB ANBK	19"	Globe: capitol series	Antique Street Lamps Inc. (512) 295-3585
15' "Capitol" series cast iron/steel pole with clear glass acorn top	Linear path lighting for major pedestrian malls and select parking corridors.	SERRA MALL MUSEUM WAY	approx 70' on center @ .5 footcandle average	150 watt metal halide	C15/20-CIS/BK-WAT20C/BK-M175QV-LBR	19"	Acorn: capitol series	Antique Street Lamps Inc. (512) 295-3585

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10' tubular aluminum pole with lantern top and glass asymmetric refractor, easy maintenance top	Linear path lighting, only for Escondido Village along central spine pedestrian/bike connector path.	ESCONDIDO VILLAGE HOUSING ALONG "VILLAGE WAY" PED/BIKE PATH	approx. 70' to 100' o.c. @ .5 - 1 footcandle average	150 watt metal halide	ALUM POLE: 0908-30504-T-3; UTILITY POSTOP: metal halide-PTU-15DMH-MT-B-G3-B; high pressure sodium-PTU-100HP-MT-B-G3-B	8" - include base cover	Utility Postop	Holophane, (740) 345-9631
10' tubular aluminum pole with lantern top and glass asymmetric refractor	Linear path lighting throughout the academic campus along pedestrian and shared bike/pedestrian pathways.	CAMPUS DRIVE, SERRA STREET PEDESTRIAN PATHS	approx. 70'-100' o.c. @ .5 footcandle average	100 watt high pressure sodium: 175 watt metal halide Palm Dr only	ALUM POLE: 0908-30504-T-3; RSL-350 fixture, ball finial, 100 watt HPS; 175 watt MH. Incandescent lamp needed for egress lighting.	8" - include base cover	RSL-350	Holophane, (740) 345-9631
12' tubular slightly tapered aluminum pole with domed disk top and flush clear tempered glass lens	In select courtyards, currently in the SEQ 2 as intimate seating and gathering space lighting	SEQ 2 QUAD, ENVIRONMENT AND ENERGY COURTYARD	as needed for area lighting	metal halide	Bega 8309MH , black, on 11'-8" aluminum pole	circular base cover	BEGA 8309	Bega (805) 684-0533
12' tubular aluminum pole with caged polycarbonate globe fixture top	A walkway light in select areas, currently planned for use in the Medical Center on the major pedestrian walkway.	LI KA SHING CENTER FOR LEARNING AND KNOWLEDGE, summer 2009	as needed for approx 1 footcandle average max	metal halide	Bega 8135MH , black, on 11'-8" aluminum pole		BEGA 8135	Bega (805) 684-0533

VEHICULAR AND ROADWAY LIGHTING

25' round tapered steel w/6' single member arm	Currently on streets & Intersections. To be phased out and replaced with Gardco form 10-EH style per Campus Drive Guidelines	CAMPUS DRIVE	as needed, 2-5FC average	150 W HPS	M2AR 15 S*A#GMN3 2 (verify w/ FO-Utilities)		SU III Cobrahead	General Electric & Valmont
18-25' high square cruciform aluminum pole with horizontal mount luminaire and base covers	Parking lots	PALM DRIVE INTERSECTIONS AND SERRA COMPLEX PARKING LOT	90-120' o.c. @ 1 FC average	HPS 150W/250W MH 175W/250W	A -14-2- 3 -150HPS-120-BLA-HF (verify pole w/ FO-Utilities)		Gardco Form 10 - A Style	Gardco lighting (800) 227-0758
25' high square cruciform aluminum pole with horizontal mount luminaire	Campus Drive, at intersections and major pedestrian crossings, and to replace SU III cobraheads.	CLARK/CHEM BIO AREA	as needed for 1 footcandle average max	250W MH	EH-19-1-3-250MH-277-BLA (top); CA5-25H-D1-BLA (pole)		Gardco Form 10 - EH Style	Antique Street Lamps Inc. (512) 295-3585

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SPECIAL LIGHTING CONDITIONS

For the following applications, special condition lighting may be desirable:

Landscape/Entryway lighting	Campuswide
Lighting Arcades	Campuswide
Service Yards	Campuswide
Event and Accent lighting	Event/art areas
Building mounted, facades	Campuswide

The special condition fixtures listed below are accepted standards for the above applications and may be used on approval from the University Architect/Planning Office

Special Condition Fixtures

Aluminum or concrete bollard lights, 42" high	Select pedestrian areas	SEQ, CLARK CENTER AT MED CENTER CENTRAL PATH	approx 18' o.c. @ 1 footcandle average max	100 watt metal halide coated lamp	KIM: VRB1 series, black metal. ALT: GARDCO: ALUM: BRM822-42-100MH-120-BLP (black) as approved	VRB Bollard or School Bollard	Kim Lighting (818)369-2695 Gardco lighting (800) 227-0758
Wall or step louvered recessed lighting	Stair or pathway lighting along buildings, landscape walls, or in custom bollards	BLACK HOUSE	as needed for 1 footcandle average max	70 watt metal halide or fluorescent	BEGA 2855MH 70W ED -17MH or 3126P 27W CF twin	recessed luminaire	Bega (805) 684-0533
Wall mounted full or half moon shape lighting	Building facades, entries, or area lighting near buildings	COWELL CLUSTER	as needed	MH or HPS lamps	KENALL "Millenium" MR series, black	wall mounted fixture	Kenall (847) 360-8200
Wall mounted wedge shape downlight	Building facades, entries, or area lighting near buildings	BRANNER DINING HALL	as needed	HPS, fluorescent, or MH lamps	SHAPER #682, wedge downlight bronze, patina to be dark: or aluminum, dark bronze color	wall mounted fixture	Shaper Lighting (510) 234-2370
Copper and bronze landscape bollard lights	Low level landscape or path lighting	ENCINA HALL SOUTH	as needed for 1 footcandle average max	HPS, fluorescent, lamps	SHAPER 902-DB-INC-120-NC-14H-32"OA	bollard	Shaper Lighting (510) 234-2370
Flush with grade, low temperature uplight	Pathways, Building lighting, or for design effect	LUCAS PED/VEHICLE ENTRY	as needed	MH at 81 CRI	BEGA 8850MH, 8750MH, 8851MH, 8751MH, 670	at grade uplight	Bega (805) 684-0533
18' Pole mounted flood lights with banner arms	Event and gathering areas	CAMPUS CENTER STAGE AREA	as needed		HOLOPHANE: Sitelink TracPole SLT21800D1PO-SPCL(3) bannerSLBA24H1.00T2D1-AB-27-4, "Callisto" luminaire	square, "no base" condition pole mounted compact round flood	Holophane, (740) 345-9631

SOURCES:

Antique Street Lamps, Austin, TX or Sixteen Five Hundred, 287 17th St, Suite 301, Oakland, CA 94612, rep Lucia Starinska, (510) 208-5005

Bega/US, Carpinteria, CA or Associated Lighting Representatives, 7305-D Edgewater Dr., PO Box 2265, Oakland, CA 94621, rep John Benson, (510) 638-0158, cell 510-385-4426

Holophane Lighting, through Acuity Lighting Group, 214 Oakwood Ave, Newark, OH 43055, 740-345-9631, rep Phil Heinz, (925) 968-9151, Mido Yee, (925) 275-0272

Shaper Lighting, Richmond, CA or California Architectural Lighting, 100 1st Street, San Francisco, CA 94105, rep Melinda Lavalley, (415) 777-5111

Kenall, 1020 Lakeside Drive, Gurnee, IL, 60031, or Sixteen Five Hundred (Co.), 287 17th Street, Suite 301, Oakland, CA 94612, rep Lucia Starinska, (510) 208-5005

General Electric Company, Hendersonville, NC or Associated Lighting Representatives, 7305-D Edgewater Dr., PO Box 2265, Oakland, CA 94621, rep John Benson, (510) 638-0158

Gardco, San Leandro, CA or Associated Lighting Representatives, 7305-D Edgewater Dr., PO Box 2265, Oakland, CA 94621, rep John Benson, (510) 638-0158

Valmont, or Associated Lighting Representatives, 7305-D Edgewater Dr., PO Box 2265, Oakland, CA 94621, rep John Benson, (510) 638-0158

KIM Lighting, www.kimlighting.com, or Lighting Systems Inc., Berkeley, CA, (510) 982-3900