Stanford Infrastructure Program--Campus Improvements (SIP-C):

The following describes the SIP-C program which is supported by a portion of a 4.6% assessment on current construction projects and managed under the direction of the Stanford University Architect/Campus Planning and Design Office. Excerpts from the current policy define the program:

“The Stanford Infrastructure Program (SIP) will consist of projects and programs proposed and developed for the betterment and general support of the University’s academic community and its physical plant. The infrastructure system is in direct support of the academic missions of teaching and research and the overall vitality of the institution. The infrastructure will be developed as necessary to improve public safety & service and to promote conservation in land use and resources.

The campus wide infrastructure system includes the conventional physical infrastructure, other than utilities systems, that are part of a typical city or county public works program including: roads, paths, pedestrian malls, campus transit, bicycle facilities, parking, storm drainage, outdoor spaces, outdoor lighting, outdoor art, and outdoor signs, as well as the advance planning efforts that support each of these. This program is organized under two areas of responsibility: Campus Planning System (SIP-C) and Transportation/Parking Systems (SIP-T).”
Stanford Infrastructure Program--Campus Improvements (SIP-C):

- Campus Planning
- Individual Projects
- Vegetation Management
- Lighting Program
- Sign Program
- Outdoor Art
- Cart Parking Program
- Pathway Program
- Landscape Improvement Program
- Bike Parking Site Program
- Bollard/Vehicle Control Program
- Furniture Program
- Research and Development
I. CAMPUS PLANNING
Arboretum Master Plan
Campus Drive Master Plan
Recreation Master Plan
II. DESIGN AND IMPLEMENTATION
Major Malls/Axis: Serra Mall
Major Malls/Axis: N/S Axis
Major Malls/Axis: Lasuen, Lomita, Governors Ave.
III. CAMPUS PROGRAMS
Programs: Bike Parking
Programs:
Bollards/Vehicle Control
Programs: Cart Parking
Programs: Landscape
**Programs: Lights**

**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 nighttime 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 lighting elements. 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. As the campus evolves, additional outdoor lighting needs will develop. These 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

<table>
<thead>
<tr>
<th>LIGHT DESCRIPTION</th>
<th>AREAS AND USES</th>
<th>ON-SITE EXAMPLES</th>
<th>SPACING</th>
<th>LAMP TYPE</th>
<th>CATALOGUE ORDER NUMBER</th>
<th>MANUFACTURER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Path/PeDESTRIAN AREAS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10’ “Capital” series cast iron feel pole with white polycarbonate glasstop</td>
<td>White Plaza</td>
<td>approx. 70’ on center @ 5 footcandle average</td>
<td>100 watt metal halide</td>
<td>100 watt high pressure sodium</td>
<td>10’</td>
<td>SL-H</td>
</tr>
<tr>
<td>15’ “Capital” series cast iron feel pole with clear glassaccom tap</td>
<td>Serra Mall, Museum Way</td>
<td>approx. 70’ on center @ 5 footcandle average</td>
<td>150 watt metal halide</td>
<td>C1525-0-C85K-WA75C20K-M17550-LBR</td>
<td>10’</td>
<td>SL-H</td>
</tr>
<tr>
<td>10’ tubular aluminum pole with bottom tap and glass asymmetric reflector</td>
<td>Escondido Village Way, Piedmont Path</td>
<td>approx. 70’ to 160’ a.c. s-1 footcandle average</td>
<td>150 watt metal halide</td>
<td>100 watt high pressure sodium</td>
<td>ALUM POLE</td>
<td>T-3</td>
</tr>
<tr>
<td>10’ tubular aluminum pole with bottom tap and glass asymmetric reflector</td>
<td>Oval and Palm Drive</td>
<td>approx. 70’ - 100’ a.c. @ footcandle average</td>
<td>100 watt high pressure sodium</td>
<td>ALUM POLE</td>
<td>T-3</td>
<td>RSL-350</td>
</tr>
</tbody>
</table>

*NOTE: All fixtures shall have a black finished color, either approved factory finish or Kelly Moore 1245-407 Carbon Black, low sheen with 070 red oxide primer as appropriate, or equal.*

*Choose lamp type according to coolwarm lighting plan. Wattage listed should be reviewed under specific site conditions to assure that desired lighting levels are produced.*

*150 watt Metalarc Pro-Tech metal halide lamps by Osram-Sylvania are recommended for longer life, or equal rated at 15,000 hours life.*
Programs: Outdoor Art
Programs: Pathways
Programs: Signs
Programs: Site Furniture
Programs: Vegetation Management
IV. RESEARCH and DEVELOPMENT
Standards: New Recycle Design

Research and Development of New Standard
Pedestrian Signs: Directional - PSV

New Prototype Model and Options
Regulatory Round Signs

New Prototypes

Regulating Wheeled Vehicles in the Arcade

Post regulatory signs at entrances to
all indoor areas by engineering.

Bikes could be regulated as a way to
help enforce rules and to provide a
controlled traffic device. When bikes are
registered, an agreement to abide by
campus rules could be signed.
Lighting:
New Night Sky/Sustainable R & D

GLOBE
LANTERN
ACORN

This campus-wide area light is for gathering and event spaces, and their entry corridors. Height of light is dependent on scale of space and adjacent path lights.

This pole light is used for linear path lighting for pedestrian and bike paths, and selected parking areas. Per our standards, it has reflectors to direct light downward, and can be installed on request with shields that control the horizontal direction of light.

This pole light is topped with an acorn-shaped globe and is the tallest light fixture in this group. It is a “special” fixture to be used as linear path lighting for major pedestrian malls and select parking corridors.
V. Acknowledgements

Office of the University Architect / Campus Planning & Design
  Cathy Blake, SIP-C Program Manager
  Dave Lenox, Director/University Architect
  Elena Angoloti
  Debbie Canino
  Eva Rose Leavitt
  Sapna Marfatia
  Daniel Morales-Sikahali

Department of Project Management
  Kelly Rohlf, Project Manager

Facilities Operations
  Grounds
  Parking and Transportation
  Roads Maintenance
  Shops

Sebastian Associates, Landscape Architecture
SWA Group, Landscape Architecture
Anza Engineering, Construction
Action Signs
Classic Lighting
Valley Crest Tree Company

And many other Stanford constituents, consultants and contractors who provided input, direction and services.