

RESOLUTION 83-2-1

A RESOLUTION RELATED TO PROVIDING FOR REGULATION OF COMMERCIAL OR PUBLIC OUTDOOR PORTABLE OR PERMANENT LIGHT FIXTURES IN THE UNINCORPORATED AREAS OF GREENLEE COUNTY, PURSUANT TO A.R.S. SECTION 11-251 AS AMENDED.

WHEREAS, pursuant to A.R.S. Section 11-251(34), the Board of Supervisors may adopt and enforce standards for shielding and filtration of commercial or public outdoor portable or permanent light fixtures in proximity to astronomical or meteorological laboratories.

WHEREAS, the Board of Supervisors desires to enact a light pollution code, known as the Greenlee County Light Pollution Code to restrict use of artificial illuminating devices emitting undesirable rays into the night sky;

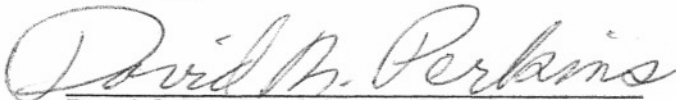
NOW, THEREFORE, BE IT RESOLVED that the attached Greenlee County Light Pollution Code is passed and adopted this seventh day of February, 1983.

GREENLEE COUNTY BOARD OF SUPERVISORS



Angel R. Cueto, Chairman

ATTEST:



David M. Perkins, Clerk
Greenlee County Board of Supervisors

Approved as to form:

William Coffeen, County Attorney

THE GREENLEE COUNTY LIGHT POLLUTION CODE
(Commercial or Public Outdoor Light Fixtures)

Article 1. Administration

1.01 Purpose

This code is intended to restrict the permitted use of outdoor artificial illuminating devices emitting undesirable rays into the night sky which have a detrimental effect on astronomical observations.

1.02 Conformance with Applicable Codes

All outdoor artificial illuminating devices shall be installed in conformance with the provisions of this Code, the Greenlee County Subdivision Regulations, and any building codes or zoning regulations which may hereafter be enacted, as applicable.

Where any provisions of any of the Arizona State Statutes Sec. 11-251, as amended, or any of the Federal law, or any companion Greenlee County code comparatively conflicts with the requirements of this Light Pollution Code, the most restrictive shall govern.

1.03 Approved Material and Methods of Installation

The provisions of this Code are not intended to prevent the use of any material or method of installation not specifically prescribed by this Code, provided any such alternate has been approved. The County Engineer may approve any such alternate provided he finds that the proposed design, material or method:

a. Provides approximate equivalence to those specific requirements of this Code, or

b. Is otherwise satisfactory and complies with the intent of the Code.

Article 2. Definitions

2.01 Outdoor Light Fixtures

Outdoor artificial illuminating devices, outdoor fixtures, lamps and other devices, permanent or portable, used for illumination or advertisement. Such devices shall include, but are not limited to search, spot, or flood lights for:

- a. Buildings and structures.
- b. Recreational areas.
- c. Parking lot lighting.
- d. Landscape lighting.
- e. Billboards and other signage (advertising or other).
- f. Street lighting.

2.02 Individual

Shall mean any private individual, tenant, lessee, owner, or any commercial entity including but not limited to companies, partnerships, joint ventures or corporations.

2.03 Installed

Shall mean the initial installation of outdoor light fixtures defined herein, following the effective date of this Code but shall not apply to those outdoor light fixtures installed prior to such date.

Article 3. General Requirements

3.01 Shielding

All exterior illuminating devices, except those exempt from this Code, and those regulated by Section 4.03 shall be fully or partially shielded as required in Section 3.03.

a. "Fully Shielded" shall mean that those fixtures shall be shielded in such a manner that light rays emitted by the fixture, either directly from the lamp or indirectly from the fixture, are projected below a horizontal plane running through the lowest point on the fixture where light is emitted.

b. "Partially Shielded" shall mean that those fixtures shall be shielded in such a manner that the bottom edge of the shield is below the plane center line of the light source (lamp), minimizing light above the horizontal.

3.02 Filtration

a. Those outdoor light fixtures requiring a filter in Section 3.03 shall be equipped with a filter whose transmission is less than 5 percent total emergent flux at wavelengths less than thirty-nine hundred (3900) angstroms. Total emergent flux is defined as that between 3000 and 7000 anstrom units.

b. It is recommended that existing mercury vapor fixtures shall be equipped with a filter whose transmission is less than 10 percent total emergent flux at wavelengths less than forty-four hundred (4400) angstroms. Total emergent flux is defined as that between 3000 and 7000 anstrom units.

c. Low Pressure Sodium lamps are the preferred lamp for minimizing adverse effects on astronomical observations.

3.01 SHIELDING - ILLUSTRATIONS

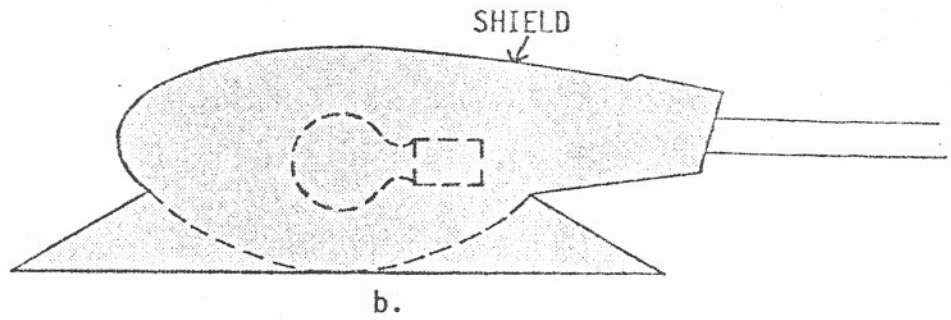
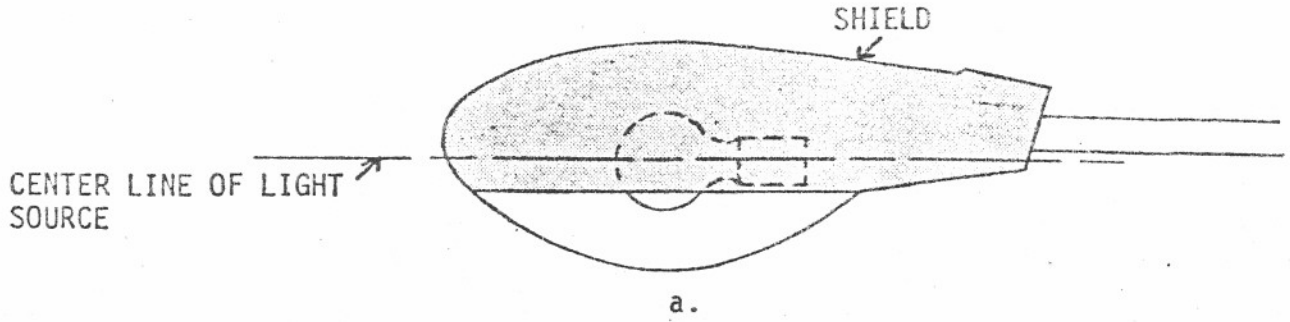


Figure 3.01a. Partially Shielded Fixture
Figure 3.01b. Fully Shielded Fixture

3.03 Requirements for Shielding and Filtering

The requirements for shielding and filtering light emissions from outdoor light fixtures shall be as set forth in the following table:

TABLE
REQUIREMENTS FOR SHIELDING AND FILTERING

FIXTURE LAMP TYPE	SHIELDED	FILTERED 4
Low Pressure Sodium ¹	Partially	None
High Pressure Sodium	Fully	None
Metal Halide ⁶	Fully	Yes
Fluorescent	Fully ⁵	Yes ²
Quartz ³	Fully	None
Incandescent Greater than 150W	Fully	None
Incandescent 150W or Less	None	None
Mercury Vapor	Fully ⁷	Yes ⁷
Fossil Fuel	None	None
Glass Tubes filled with Neon, Argon, Krypton	None	None
Other Sources	AS APPROVED BY THE COUNTY ENGINEER	

Footnotes:

1. This is the preferred light source to minimize undesirable light into the night sky affecting astronomical observations.
2. Warm White and Natural Lamps are preferred to minimize detrimental effects.
3. For the purposes of this Code, quartz lamps shall not be considered an incandescent light source.
4. Most glass, acrylic, or translucent enclosures satisfy these filter requirements.
5. Outdoor advertising signs of the type constructed of translucent materials and wholly illuminated from within do not require shielding.
6. Metal halide display lighting shall not be used for security lighting after 11 p.m. (or after closing hours if before 11 p.m.) unless fully shielded. Metal halide lamps shall be in enclosed luminaires.
7. Recommended for existing fixtures. The installation of mercury vapor fixtures is prohibited effective 90 days after the date of adoption of this Code.

Article 4. Prohibitions

4.01 Searchlights

The operation of searchlights for advertising purposes is prohibited.

4.02 Recreational Facility

No outdoor recreational facility, public or private, shall be illuminated by nonconforming means after 11 p.m. except to conclude a specific recreational or sporting event or any other activity conducted at a ball park, outdoor amphitheater, arena, or similar facility in progress prior to 11 p.m.

4.03 Outdoor Building or Landscaping Illumination

The unshielded outdoor illumination of any building, landscaping, signing or other purpose, is prohibited except with incandescent fixtures less than 150 watts.

4.04 Mercury Vapor

The installation of mercury vapor fixtures is prohibited effective 90 days after the date of adoption of this Code.

Article 5. Permanent Exemptions

5.01 Nonconforming Fixtures

All outdoor light fixtures existing and fully installed prior to the effective date of the Code may remain "nonconforming" indefinitely; provided, however, that no change in use, replacement, structural alteration, or restoration after abandonment of outdoor light fixtures shall be made unless it thereafter conforms to the provisions of these regulations.

5.02 Fossil Fuel Light

Produced directly or indirectly by the combustion of natural gas or other utility-type fossil fuels.

5.03 Federal and State Facilities

Those facilities and lands owned, operated as protected by the U.S. Federal Government or the State of Arizona are exempted by law from all requirements of this Code. Voluntary compliance with the intent of this Code at those facilities is encouraged.

5.04 Special Exemption

The County Engineer may grant a special exemption to the requirements of Section 3.03 only upon a written finding that there are extreme geographic or geometric conditions warranting the exemption and that there are no conforming fixtures that would suffice.

Article 6. Procedures for Code Compliance

6.01 Applications

a. Any individual applying for a building or use permit under the Greenlee County Zoning Regulations intending to install outdoor lighting fixtures shall as a part of said application submit evidence that the proposed work will comply with this Code.

b. All other individuals intending to install outdoor lighting fixtures shall submit an application to the County Engineer providing evidence that the proposed work will comply with this Code.

c. Utility companies entering into a duly approved contract with the County in which they agree to comply with the provisions of these regulations, shall be exempt from applying for and obtaining a permit for the installation of outdoor light fixtures, including residential security lighting.

6.02 Contents of Application or Submission

The submission shall contain but shall not necessarily be limited to the following, all or part of which may be part of or in addition to the information required elsewhere in the Greenlee County Zoning Regulations upon application for the required permit:

a. Plans indicating the location on the premises, and the type of illuminating devices, fixtures, lamps, supports, other devices, etc.

b. Description of the illuminating devices, fixtures, lamps, supports and other devices, etc. This description may include but is not limited to, manufacturers catalog cuts, and drawings (including sections where required).

The above required plans and descriptions shall be sufficiently complete to enable the County Engineer to readily determine whether compliance with the requirements of this Code will be secured. If such plans and descriptions cannot enable this ready determination, by reason of the nature or configuration of the devices, fixtures or lamps proposed, the applicant shall submit evidence of compliance by certified test reports as performed by a recognized testing lab.

6.03 Issuance of Permit

Upon compliance with the requirements of this Code, the County Zoning Inspector shall issue a permit for installation of the outdoor lighting fixtures, to be installed as in the approved application. In the event the application is part of the building permit application under the zoning regulations, the issuance of the building permit will be made if the applicant is in compliance with this Code as well as the other requirements for issuance under the zoning regulations. Appeal procedures of the zoning regulations for decisions of the County Engineer shall apply.

6.04 Amendment to Permit

Should the applicant desire to substitute outdoor light fixtures or lamps after a permit has been issued, the applicant must submit all changes to the County Engineer for approval with adequate information to assure compliance with this Code.

Article 7. Temporary Exemptions

Any individual as defined herein may submit a written request on a form prepared by the Planning and Zoning Department to the County Engineer for a 'temporary exemption' to the requirements of this Code, such exemption to be valid for 30 days, renewable at the discretion of the County Engineer.

The Request for Temporary Exemption shall contain minimally the following listed information:

1. Specific exemptions requested.
2. Type and use of exterior light involved.
3. Duration of time for requested exemption.
4. Type of lamp and calculated lumens.
5. Total wattage of lamp or lamps.
6. Proposed location of exterior light.
7. Previous temporary exemptions, if any.
8. Physical size of exterior light and type of shielding provided.

In addition to the above date, the County Engineer may request any additional information which would enable him to make a reasonable evaluation of the Request for Temporary Exemption.

7.02 Appeal for Temporary Exemption

The County Engineer, within five days from the date of the properly completed Request for Temporary Exemption, shall approve or reject in writing the Request. If rejected, the individual making the request shall have the right of appeal

to the appropriate Board of Adjustment for review pursuant to the procedures applicable to any other appeal of a decision of the County Engineer.

Article 8. Penalties

Any person, firm, or corporation violating any of the provisions of this Code shall be deemed guilty of a separate offense for each and every day or portion thereof during which a violation of any of the provisions of this Code is committed, continued or permitted and upon conviction of any such violation such person, firm, or corporation shall be punished as prescribed by the Arizona Revised Statutes.