

December 1, 2021

**BY EMAIL**

ADA Coordinator  
San Jose, California  
ADA@sanjoseca.gov

**Re: Discriminatory LED Radiation**

Dear ADA Coordinator,

The radiation from Light Emitting Diodes is emitted in a shape known as a Lambertian ball. This shape is different than the spherical radiation shape emitted by the sun, a candle, or incandescent source. Standard regulations for light apply to spatially isotropic radiation such as from the sun or gas-discharge, but do not apply to spatially anisotropic radiation from a flat surface emitter such as LED or laser, unless explicitly specified. The Lambertian shape of LED radiation interferes with the proper functioning of the human nervous system. In addition, the spectral and temporal properties of LEDs also affect the nerves. At very low power, this interference may not be noticeable. However, at the intensity levels delivered by today's LEDs, the spatially anisotropic radiation causes epileptic seizures, migraines, psychological trauma, pain, sickness, and thoughts of suicide.

After a review of the city's website, we no indication that the City of San Jose has addressed the discriminatory effects of LED radiation on those with disabilities, neither on the city's website nor in the city's ADA self-evaluation plan. This situation must be corrected so that the city can comply with the Americans with Disabilities Act.

The US Access Board does not currently have guidance on LED radiation, so it is incumbent on the city to develop their own guidelines. As an advocacy group, the Soft Lights Foundation is available to assist the city with drafting guidance for LED radiation devices.

Situations where the city of San Jose uses or may use LED radiation devices includes streetlights, electronic billboards, flashing lights on emergency and utility vehicles, flashing lights on stop sign and crossing walk devices, flashing lights on radio towers, floodlights, and strip lights.

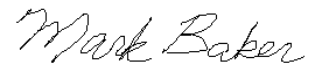
For people who are protected under the ADA and are LED-reactive, LED radiation devices are discriminatory because they prevent access to public services. For example, an LED flashing light on an ambulance may prevent an LED-reactive person from receiving care. LED billboards may prevent a person with a disability from using the roads.

To prevent discrimination and reduce the risk of liability, the city should have a written plan to ensure that any project does not harm or discriminate against persons with disabilities. Failure to

consult with the disability community prior to the installation of an LED radiation device will also make the city liable and the city would not later be able to claim undue burden when accommodations are requested. For example, in the case of the installation of an electronic billboard, a person with epilepsy would be entitled to have the electronic billboard removed, even if doing so was expensive or invalidated a contract.

If the city needs personal stories of harm suffered from LED radiation or more technical guidance on why LED radiation is so toxic, please let us know and we can provide that information.

Sincerely,

A handwritten signature in black ink that reads "Mark Baker". The signature is written in a cursive, slightly slanted style.

Mark Baker  
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