

Item 21-14 Guide Sign Lighting

Recommendation: Update Guide Sign Lighting Policy.

Requesting Agencies/Sponsor: Caltrans/Monica Kress-Wooster, CTCDC member

Proposal: Research from the [Federal Highway Administration](#) and [Caltrans](#) has determined that overhead signs can be installed without illumination. Various manufacturers have developed high-performance retroreflective sheeting (such as ASTM Type XI) that provides high nighttime legibility which eliminates the need for fixed lighting illumination for overhead guide signs. Use of high-performance retroreflective sheeting materials facilitate the following benefits:

- A. Reduced electric energy expense and greenhouse gas emissions by not requiring electrical energy to illuminate signs.
- B. Decreased overall maintenance costs.
- C. Decreased light pollution
- D. Increased worker safety by reducing ongoing challenges of maintaining lighting, equipment, conducting shoulder and lane closures, and associated temporary traffic control during periodic electrical system maintenance
- E. Reduced graffiti vandalism due to retrofitting existing overhead sign structures to remove permanently installed catwalks.
- F. Mitigation of copper wire theft at overhead sign structures.

The proposed changes would provide agencies the option to not install lighting fixtures if the retroreflective sheeting used provides effective nighttime legibility.

Proposed Policy Changes

Note: **Red** text is proposed text.

Black ~~striketrough~~ text is the text that is not applicable in California

Blue text is the existing California revision

Section 2D.03 Color, Retroreflection, and Illumination

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Energy Conservation Measures for Guide Signs

Guidance:

***20** All non-action guide sign lighting (Interchange Sequence (G23(CA) Series) signs) should be turned off, except in special situations where motorist safety could be affected.*

***21** Following are some situations where engineering judgment should be used to determine if illumination should be maintained:*

- A. Locations prone to heavy fog or poor visibility.*
- B. Signs in work zones or in the proximity of work zones.*
- C. Non-action guide signs adjacent to other signs that must be lighted.*

Option:

*~~**22** All G21(CA) Series, G24(CA) Series, G83(CA) Series, G85(CA) Series and G86(CA) Series and other action guide signs should remain lighted on highways~~ Lighting on overhead action guide signs may be omitted if retroreflective luminance from headlights provides effective nighttime legibility.*

Guidance:

***23** When illuminated, lights should be replaced with energy efficient fixtures on highways.*