

TRAFFIC AND SAFETY MANUAL

Chapter 6 – Lighting 6D – Freeways

Freeway Lighting Warrants

Originally Issued: 12-17-01, Last Revised: 12-17-01

Freeway Lighting

In general there are benefits to be gained by providing continuous freeway lighting, particularly when higher traffic volumes are present. Continuous lighting helps define roadway geometry, assist motorists during inclement weather, and gives the driver better perception of their surroundings and roadway conditions ahead. This is typically associated with urban/suburban freeways. The benefits need to be weighed against the added cost to the public in the form of increased construction and maintenance costs.

Warrants

Partial lighting at conflict points is warranted when, after considering AASHTO warrants and specifics of the location, the Department determines that lighting is prudent.

Continuous freeway lighting is warranted when AASHTO warrants are met and the Department, after considering the specifics of the location, determines that this level of lighting is justified.

Sign Illumination

See Section 2A-9 of this manual for sign illumination guidelines.

Appendix A

AASHTO Warrants for Freeway Lighting

Continuous Freeway Lighting (CFL)

Case CFL-1---Continuous freeway lighting is considered to be warranted on those sections in and near cities where the current ADT is 30,000 or more.

Case CFL-2--- Continuous freeway lighting is considered to be warranted on those sections where three or more successive interchanges are located with an average spacing of $1\frac{1}{2}$ miles or less, and adjacent areas outside the right-of-way are substantially urban in character.

Case CFL-3--- Continuous freeway lighting is considered to be warranted where for a length of two or more miles the freeway passes through a substantially developed suburban or urban area in which one or more of the following conditions exists; (a) local traffic operates on a complete street grid having some form of street lighting, parts of which are visible from the freeway; (b) the freeway passes through a series of developments such as residential, commercial, industrial and civic areas, colleges, parks, terminals, etc., which include roads, streets and parking areas, yards, etc., that are lighted; (c) separate cross streets, both with and without connecting ramps, occur with an average spacing of ¹/₂ mile or less, some of which are lighted as part of the local street system; and (d) the freeway cross section elements, such as median and borders, are substantially reduced in width below desirable sections used in relatively open country.

Case CFL-4---Continuous freeway lighting is considered to be warranted on those sections where the ratio of night to day accident rate is at least 2.0 or higher than the statewide average for all unlighted similar sections, and a study indicates that lighting may be expected to result in a significant reduction in the night accident rate.

Document Revision History: 12-17-01