



## Traffic Guidelines Manual

ORIGINATOR Director, Bureau of Traffic Operations		11-1-2
CHAPTER 11	Lighting/Electrical/Electronic Systems	
SECTION 1	Lighting Systems Approval	
SUBJECT 2	Lighting System Design Review	

### POLICY

All DOT maintained Roadway Lighting System designs **shall** follow the process described in with this document.

### POLICY APPLICATION

The purpose of this policy is to prescribe guidelines and procedures that will help ensure consistent lighting system designs statewide and clarify the review requirements.

### PROCEDURAL REQUIREMENTS

For all Projects covered under this policy, after receiving the necessary Lighting System Approval described in TGM 11-1-1, the lighting designer **shall** submit a Continuous Lighting System Illumination Application DT1886 (or Preliminary Permit Application for locally maintained systems), Roundabout Illumination form, or Signalized Intersection Illumination Form, as applicable to the project, to the DOT Regional Lighting Engineer prior to beginning the design.

The designer **shall** send a copy of all submittals to the State Lighting Engineer.

### DESIGN PROCESS

The designer **shall** follow the appropriate WisDOT design standards/parameters described in later TGM sections for the type of lighting system being proposed.

The designer **shall** follow the submittal/review procedures described in the WisDOT lighting review checklist.

**DESIGN CHECKLIST FOR  
ROADWAY LIGHTING**

System designed by:  Design consultant  Traffic (In-house)  PDS (In-house)

Project ID (Design / Const) \_\_\_\_\_

Description \_\_\_\_\_

Highway \_\_\_\_\_ County \_\_\_\_\_

Designer Name (print/type) \_\_\_\_\_ Signature \_\_\_\_\_

**Coordinate Lighting Design Process @ approximately 30% Plan**

- Contact Region Traffic Section about the need for a lighting system on the project. Identify project segments.
- Prepare description of Lighting System and prepare & submit Roadway Lighting System Request Form DT1198.
- Consult current Chapter 11 of WisDOT Traffic Guidelines Manual.** Determine all Design Guidelines, Roadway and Area Classifications and Target Illumination Thresholds for the various project segments.  
**Obtain approval from Region Lighting Engineer in Traffic Section.**
- Verify Luminaire used in the design.
- Prepare Preliminary Permit Application form, Continuous Lighting Illumination Form, Signalized Intersection Illumination Form, or Roundabout Illumination Form.  
**Obtain necessary Approval(s) before beginning the Design.**

**Preliminary Review @ approximately 60% Plan**

- AGI32 Roadway Optimizer calculations for continuous roadway sections (Avg. Maintained Illumination, Uniformity) showing compliance with Application or Illumination form)  N/A
- AGI32 calculations for Roundabouts showing compliance with Application or Illumination form)  N/A
- AGI32 calculations for Signalized Intersections showing compliance with Application or Illumination form)  N/A
- Preliminary Plan with proposed luminaire/pole locations

**Final Review @ approximately 90% Plan**

Submit to Region Traffic Section Lighting Engineer, with copy to State Lighting Engineer:

- Completed Lighting Permit (if applicable)       N/A
- Lighting Plans (See FDM 15-1 Attachment 5.14 Sample Design Sheet). Include applicable plan details.
- Miscellaneous Quantities
- SPVs
- Wiring Diagram per Sample Design Sheet
- List of SDDs included in the Lighting Plan
- Voltage Drop Calculations for lighting (include festoon outlets where applicable)
- This Completed Checklist signed by Designer.

**The following shall also be verified/checked by designer**

- Miscellaneous Quantities/SPVs match the Plans.
- SPVs for luminaires on permitted projects specify compliance with permit conditions.  
     N/A
- On permitted projects, if banners, holiday decorations, or festoon outlets are to be installed or attached to the poles, the dimensions and locations must be included and shown on a detail drawing. The pole manufacturer needs this information for their pole design calculations.  N/A
- The Designer has checked the design for completeness and correctness.

