



**MINNESOTA DEPARTMENT OF TRANSPORTATION**  
**Engineering Services Division**  
**Technical Memorandum No. 08-07-TS-01**  
 May 19, 2008

**To:** Distribution 57, 612, 618, and 650

**From:** Rick Arnebeck  
 Director, Engineering Services Division

**Subject:** Flashing and Moving Lights on Outdoor Advertising Devices

**Expiration**

This Technical Memorandum supersedes Technical Memorandum 03-11-ES-01 and will be in effect until May 19, 2013.

**Implementation**

The guidelines and instructions described in this Technical Memorandum are effective immediately for all roads in Minnesota that are on the National Highway System and all roads that were a part of the Federal Aid Primary System as it existed in 1992.

**Introduction**

This Technical Memorandum establishes a uniform policy to determine whether lighting displays of outdoor advertising devices contain flashing or moving lights.

**Purpose**

To provide District personnel charged with enforcement of MN Statute Chapter 173 (Outdoor Advertising Act) (<http://www.revisor.leg.state.mn.us/stats/173>) with a clear guideline as to what constitutes flashing or moving lights.

**Guidelines**

This guideline is intended for evaluating all off-premise outdoor advertising devices that utilize lighting for illumination and displaying messages or pictorial images. MN Statute 173.15, (7) (<http://www.revisor.leg.state.mn.us/stats/173/15.html>) prohibits any outdoor advertising device "which has distracting flashing or moving lights so designed or lighted as to be a traffic hazard."

Chapter 173.16, Subd 4 (establishment of spacing requirements) (<http://www.revisor.leg.state.mn.us/stats/173/16.html>), allows motorists to be exposed to an off-premise advertising device every six seconds when traveling 90 km/h (**55 mph**) on trunk highways and expressways and every 5 seconds when traveling 110 km/h (**70 mph**) on rural interstates.

This is determined by the following calculations:

<b>Outdoor advertising devices are allowed every: 150 m (500 feet)</b>	
<i>Trunk Highways &amp; Expressways</i>	<i>Rural Interstates</i>
<b>Vehicle Speed</b>	
90 km/h or 25 m/s <b>(55 mph or 80.7 ft/second)</b>	110 km/h or 30 m/s <b>(70 mph or 102.7 ft/second)</b>
<b>Time between allowable display</b>	
150m / 25 m /second = 6.0 seconds <b>(500 ft / 80.7 ft / second = 6 seconds)</b>	150 m / 30 m/second = 5 seconds <b>(500 ft / 102.7 ft/second = 5 seconds)</b>

Using these calculations, a measurement can be taken for determining whether lighting display is prohibited because it is either flashing or moving. Lighting display changes that occur less than once every six seconds present motorists with more off-premise advertising displays than the MN Statute 173 allows through its spacing requirements. Lighting display changes occurring once every six seconds, or more, do not present motorists with any more of a visual display than ordinary illuminated devices.

Lighting which presents a new message, pictorial image, or changes illumination at a rate less than once every six seconds is determined to be a flashing or moving light and is in violation of MN Statute 173.15, (7).

#### **Questions**

For information on the technical contents of this memorandum, please contact **Scott Robinson, State Outdoor Advertising Coordinator**, at **(651) 366-4671, Office of Technical Support**.

Any questions regarding publication or distribution of this Technical Memorandum should be referred to the Design Standards unit, [designstandards@dot.state.mn.us](mailto:designstandards@dot.state.mn.us). A link to all active Memoranda and a list of historical Technical Memoranda can be found at <http://www.dot.state.mn.us/atoz.html>.

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