



Minnesota Department of Transportation
 Office of Traffic, Safety & Technology
 1500 County Road B2, MS 725
 Roseville, MN 55113

Memo

TO: Sue Groth
 Director, Office of Traffic Safety & Technology

FROM: Heather Lott
 State Signing Engineer

DATE: ~~July 19, 2012~~ Updated May 12, 2014

SUBJECT: TEO Signing Committee Topic # 397
 Memorial Routes and Bridges

TOPIC STATUS

Signing Subcommittee:
05/31/2012
05/08/2014 – committee members suggested reorganization and added language for better clarification

Executive Committee:
7/19/12 Suggested revisions
01/22/13 Clarifications & Suggested revisions
05/29/14 APPROVED

On behalf of the TEO Signing Committee, I am requesting that the TEO Executive Committee review and approve the following recommendations regarding a revised policy for signing Memorial Routes and Bridges. If approved, this policy will be included in the next Traffic Engineering Manual (TEM) update.

Introduction

Legislation passed for Corporal Johnathan Benson Memorial Highway in Metro District. Standard size signs were installed and after installation, MnDOT Ombudsman Office received complaints that the signs were not large enough. After working through the Ombudsman Office, it was agreed that MnDOT would reconsider the policy on Memorial Routes and Bridges signs. The goal is to make the text size larger, thus matching the text size used on other signs appropriate for the speed of the roadway.

In addition, MnDOT has had recent requests through the legislation process in which the request includes signs along freeway mainlines. It is increasingly difficult to say no when we hear other states install such signing on freeways.

MnDOT Policy Changes

There are two changes being requested for approval.

M1-X5R



White on
Brown

24 x 24

CR-SL, CR-ML, E

2M.10

1. Currently, most signs installed today for Memorial Routes and Bridges signs on trunk highways are 24 x 24 with white legend on a green background. The color of the signs has

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changed to white legend on brown background in the 2009 Federal MUTCD and the 2011 MN MUTCD.

The Federal MUTCD does not show a size for the signs. The 2011 MN MUTCD repeated the size at 24 x 24. It is requested that the size of the signs on MnDOT roadways be increased. Sign designs are to use a 6" text height for the person or entity being recognized. Text size may be reduced in urban areas where physical space is restricted.

2. Allow installation of Memorial Routes and Bridges signs to be installed on expressways or freeways if legislatively identified.

Example sign designs are attached to this memo.

If approved, this will also be brought before the Minnesota Committee on Uniform Traffic Control Devices.

If approved, existing signs shall be changed out through attrition and meet their service life before replacement.

Cc: TEO Executive Committee
TEO Signing Committee
Rick Sunstrom

Enclosure

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Chapter 6, 6-7.08 of the Traffic Engineering Manual proposed language:

4. Memorial Highways and Bridges

Memorial highways and bridges are established on trunk highways by statute to commemorate an individual or entity (See Minnesota Statute 161.14). MnDOT remains neutral on proposed memorial highway legislation on non-freeway routes as long as the section of highway has only one designated name. A map of legislatively designated memorial routes and bridges may be found on MnDOT's Transportation, Data and Analysis website <http://www.dot.state.mn.us/roadway/data/data-products.html>.

The Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD), Section 2M.10, indicates that freeways and expressways should not be signed as memorial or dedication routes. If they are signed, the signs should be placed in nearby rest areas, scenic overlooks or other appropriate roadside area locations where parking is provided. MnDOT recognizes that signing along freeways and expressways is in conflict with the MN MUTCD but because state law requires signing MnDOT has developed the following guidance for signing memorial highways and bridges on trunk highways:

1. Freeways

For designated routes along freeways, signs shall first be considered to be installed in rest areas. If installation of a sign in the nearest rest area is not practical, installation of a sign at the top of the freeway entrance ramp shall be considered. If memorial highway signs are installed on freeway entrance ramps, one sign in each direction of travel may be installed at the top of the nearest entrance ramp at the beginning of the designated route. If installation of a sign on the entrance ramp is still not practical, then installation of a sign on the mainline may be considered. If memorial highway signs are installed on the mainline, one sign in each direction of travel at or near the beginning of the designation may be installed and shall be placed in an area which will not interfere with any other traffic control device.

2. Expressways

For designated routes along expressways signs will be allowed to be installed along mainline roadway. If memorial highway signs are installed on the mainline, one sign in each direction of travel at or near the beginning of the designation may be installed and shall be placed in an area which will not interfere with any other traffic control device.

3. Conventional Roadways

Memorial highway signs are allowed to be installed along conventional roadways in accordance the MN MUTCD. One sign in each direction of travel at or near the beginning of the designation may be installed and shall be placed in an area which will not interfere with any other traffic control device.

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4. Bridges

Designated bridges will be signed for road users on the carrying roadway and not for the roadway beneath.

5. Rest Areas and Other Roadside Areas

Memorial highway signs installed in rest areas or other roadside areas and intended for viewing by non-motoring public may allow for non-standard design, such as a photo of the person being commemorated. A new sign panel should be installed on its own structure. Standard signs installed on the entrance ramp shall be installed on the right side of the ramp, between the entrance gore and the parking area, with 150 to 200 foot spacing between signs.

Under no circumstances will memorial highway or bridge signs be allowed to be mounted overhead.

Memorial highway sign designs shall be designed in accordance with the MN MUTCD, Section 2M.10. The sign designs shall use a 6" combination of initial upper case and lower case letters for the person or entity being recognized. Text size may be reduced in urban areas where physical space is restricted. New sign design requests should be sent to OTST State Signing Office.

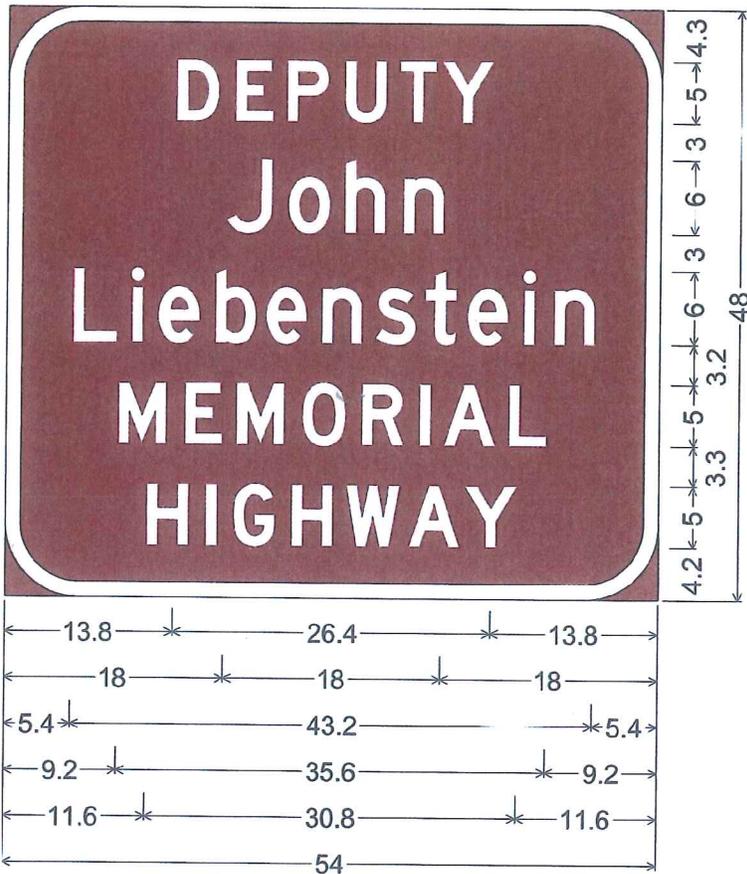
The organization sponsoring the route or bridge designation shall reimburse MnDOT according to Technical Memorandum No. 12-02-T-01 for the cost of fabricating, installing, and maintaining signs on trunk highways. (See Minnesota Statute 161.139)

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M1-X5uu; 3.0" Radius, 1.0" Border, White on Brown;
 "VETERANS" B; "MEMORIAL" B; "BRIDGE" C;



6.0" Radius, 1.3" Border, White on Brown;
 "DEPUTY" D Mod; "John" D; "Liebenstein" D;
 "MEMORIAL" D Mod; "HIGHWAY" D Mod;



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Office of Traffic, Safety & Technology
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Memo

TO: Sue Groth
Director, Office of Traffic Safety & Technology

FROM: Heather Lott
State Signing Engineer

DATE: ~~March 19, 2014~~ **May 12, 2014**

SUBJECT: TEO Signing Committee Topic # 402
LED STOP and YIELD Signs

TOPIC STATUS

***Executive Committee:
03/26/14 Approved with
changes in red italics. Color of
LED's still in question.***

***05/29/14 Approved the color
of LED's for STOP and YIELD
signs to be red***

On behalf of the TEO Signing and Safety Committees, I am requesting that the TEO Executive Committee review and approve the following recommended guidelines for the use of flashing LED STOP and YIELD signs. If approved, this policy will be included in the next Traffic Engineering Manual (TEM) update.

Suggested language that can be placed in permits issued to local agencies for installation and maintenance of these devices follows the recommended guidelines below. Upon approval of these guidelines, an approved product list specification will be completed.

If approved, there will be no compliance date to meet the recommended guidelines attached. Therefore, Districts should replace devices through attrition to meet current standards.

Cc: TEO Executive Committee
TEO Signing Committee
Brad Estochen - Chair of the TEO Safety Committee
Rick Sunstrom

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Guidelines for the Use of Flashing LED STOP and YIELD Signs

Introduction

Light Emitting Diode (LED) units may be used individually within the legend of a sign and/or in the border of a sign to improve the conspicuity or to increase the legibility of sign legends and borders. Flashing LED STOP and YIELD signs should only be considered for installation in situations necessitating enhanced visibility of the sign. When usage is limited to special circumstances, flashing LED STOP and YIELD signs may be effective safety countermeasures.

This guidance supplements the retroreflectivity and illumination information found in the Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD), Section 2A.7. It is intended for use in permanent installations of LED STOP and YIELD signs that flash continuously, but not for actuated systems.

Appropriate Usage

Flashing LED STOP and YIELD signs should only be considered for installation in situations necessitating enhanced visibility of the sign as determined by engineering study. These signs should be limited to locations with at least two of the following:

- Limited visibility on approach to the intersection, as determined by the sight distance criteria for Warrant 1 in Section 9-4.02.02 of the Traffic Engineering Manual.
- A history of crashes documented to be caused by a failure to stop and deemed preventable by implementation of conspicuity improvements
- At a rural junction of two or more high speed trunk highways to warn drivers of an unexpected crossing of another highway
- At a rural junction of a trunk highway and a local road which has no STOP controlled intersection within five miles.

Prior to selecting a flashing LED STOP or YIELD sign, several of the following conspicuity improvement alternatives should be implemented at the intersection:

- Install a STOP AHEAD (W3-1) or YIELD AHEAD (W3-2) sign on approach to the intersection, appropriate to the intersection control.
- Increase the size of a standard STOP or YIELD sign.
- Install a second STOP or YIELD sign of equal or lesser size on the left-hand side of the roadway.
- Add one or more red or orange flags (cloth or retroreflective sheeting) above a standard STOP or YIELD sign, with the flags oriented so as to be at 45 degrees to the vertical.

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- Add a strip of retroreflective material to the sign support in compliance with the provisions of MN MUTCD Section 2A.21.
- Install pavement marking messages appropriate to intersection control, such as STOP and/or STOP AHEAD, YIELD and/or YIELD AHEAD.
- Install in-lane rumble strips on approach to the intersection according to Chapter 4-4.02 of the MnDOT Road Design Manual.
- Add a stop beacon to a STOP sign according to Section 9-4.02.02 of the Traffic Engineering Manual and MN MUTCD Section 4L.5. The stop beacon alternative is not required prior to installing a flashing LED STOP sign. Stop beacons shall not be installed in combination with flashing LED STOP signs.

If a flashing LED STOP or YIELD sign is installed on a single lane approach the LED sign shall be installed on the right side of the roadway and a second static STOP or YIELD sign may be mounted on the left side of the roadway. If the approach is a multilane approach and an engineering study determines that the installation of flashing LED STOP or YIELD signs on both the right and left side of the roadway is warranted, then the flashing LED signs shall flash simultaneously.

Device Characteristics

LEDs shall be red for STOP and YIELD signs.

Operation

The uniformity of the sign design shall be maintained without any decrease in visibility, legibility, or driver comprehension during either daytime or nighttime conditions.

Installation, Maintenance, and Replacement

The District Traffic Office shall notify the State Traffic Safety Engineer of all installations and removals of flashing LED STOP and YIELD signs along the trunk highway system.

Flashing LED STOP and YIELD signs installed by local agencies at intersections of local roads with trunk highways:

- Shall be installed via permit obtained from the District Office.
- Shall have all costs related to installation and maintenance be incurred by the permitted agency.
- May be subject to field reviews conducted by MnDOT at any time in order to verify proper installation, maintenance, and operation of the traffic control device.

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In the event that a flashing LED STOP or YIELD sign is knocked down or otherwise rendered inoperable due to damage:

- Replace the damaged STOP or YIELD sign immediately with a temporary or permanent sign. A temporary non-LED STOP or YIELD sign may include an attached flashing beacon for enhanced conspicuity. The temporary sign shall remain on-site until a permanent sign is installed.
- Replacement flashing LED STOP or YIELD signs shall be installed at the expense of the permitted agency which requested the original flashing LED STOP or YIELD sign. The permitted agency shall reimburse MnDOT for the repair or replacement of any signs, permanent or temporary, LED or non-LED, related to inaction or slow response by the permitted agency.
- A permanent replacement STOP or YIELD sign may be a regular, non-LED sign if the maintaining agency wishes not to continue operation of a flashing LED STOP or YIELD signs at that location. This decision shall be documented by the permitted agency, and sent to the District Traffic Office within one week of replacing the damaged sign.

Discontinued operation of a flashing LED STOP or YIELD sign leading to replacement with a regular, non-LED STOP or YIELD sign for any reason other than damage shall require that the District Traffic Office be notified 30 days prior to replacement. This decision shall be documented by the permitted agency, and sent to the District Traffic Office at the time of notification.

Suggested Permit Language for Installation and Maintenance

Applicant is responsible for all costs to install and maintain the flashing LED stop or yield signs installed under this permit. The flashing LED signs are subject to field reviews conducted by MnDOT at any time in order to verify proper installation, maintenance, and operation of the traffic control device.

In the event that a flashing LED STOP sign is knocked down or otherwise rendered inoperable due to damage, a temporary non-LED STOP or YIELD sign shall be placed at the location, which may include an attached flashing beacon for enhanced conspicuity. The temporary sign shall remain on-site until a permanent sign is installed. Replacement flashing LED STOP or YIELD signs shall be installed at the expense of the applicant which requested the original flashing LED STOP or YIELD sign. The applicant shall reimburse MnDOT for the repair or replacement of any signs, permanent or temporary, LED or non-LED, related to inaction or slow response by the applicant.

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A replacement STOP or YIELD sign may be a regular, non-LED sign if the applicant wishes not to continue operation of a new flashing LED STOP or YIELD sign at that location. This decision shall be documented by the applicant, and sent to the MnDOT District Traffic Office within one week of replacing the damaged sign.

Discontinued operation of a flashing LED STOP or YIELD sign leading to replacement with a regular, non-LED STOP or YIELD sign for any reason other than damage shall require that the District Traffic Office be notified 30 days prior to replacement.

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Memo

TO: Sue Groth
Director, Office of Traffic Safety & Technology

FROM: Heather Lott
State Signing Engineer

DATE: May 12, 2014

SUBJECT: TEO Signing Committee Topic # 403
Outlet Mall Signing Policy

TOPIC STATUS

Signing Subcommittee:
05/08/2014

Executive Committee:
APPROVED 05/29/2014

On behalf of the TEO Signing Committee, I am requesting that the TEO Executive Committee review and approve the following recommendations regarding a new guideline for signing Outlet Malls. If approved, this policy will be included in the next Traffic Engineering Manual (TEM) update.

Several years ago the ESVC approved a sign on I-94 for Albertville Outlet Mall and asked MnDOT that we follow up with some changes to our Regional Shopping Mall policy.

Instead of recommending changes to the Regional Shopping Center Program to include Outlet Malls, it was decided that we create a new category for Outlet Malls. The proposed Outlet Mall policy is as follows:

Proposed Outlet Mall Signing Program

In addition to the general criteria for all signing programs, the following criteria apply for the Outlet Mall Signing Program. Outlet Mall signs may be installed on all trunk highways. In order to be considered for signs on trunk highways, all of the following criteria shall be met by the outlet mall requesting signing:

1. Primary function of the mall is to house tenants who are manufacturers that sell their stock directly to the public.
2. At least 400,000 SF of retail floor space available for lease.
3. Minimum of 100 stores.
4. Located within 2 miles of the trunk highway intersection or interchange.
5. Located outside of the downtown or central business district, except in the Metro District.

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For reference, the existing Regional Shopping Center policy is listed below.

6-7.09.12 Regional Shopping Center Signing Program

In addition to the general criteria for all signing programs, the following criteria apply for the Regional Shopping Center Signing Program. Regional Shopping Center signs may be installed on all trunk highways. In order to be considered for signing, all of the following criteria shall be met by the regional shopping center requesting signing:

1. At least 600,000 square feet of retail floor space, all under one roof and available for lease.
2. At least two major department stores owned by a national or regional chain organization.
3. Located within two miles of the trunk highway intersection or interchange.
4. Located outside of the downtown or central business district, except in the Metro District.

Cc: TEO Executive Committee
TEO Signing Committee
Rick Sunstrom

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