



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

January 27, 2012

CIRCULAR LETTER 2012-04

INTERIM APPROVAL – ELECTRIC VEHICLE CHARGING SYMBOL (ALTERNATE) SIGN

COUNTY ENGINEERS/SUPERINTENDENTS OF HIGHWAYS
MUNICIPAL ENGINEERS/DIRECTORS OF PUBLIC WORKS/MAYORS
CONSULTING ENGINEERS

On November 3, 2011, the department received statewide interim approval for use of the alternate electric vehicle charging symbol sign in Illinois based on the Federal Highway Administration's (FHWA) April 1, 2011 Interim Approval (IA) memorandum. The department is working with the Illinois Department of Commerce and Economic Opportunity to establish a policy for the use of these signs on state highways. Once the policy is established, the department will issue a procedure memorandum to modify Chapter 39 of the Bureau of Local Roads and Streets Manual.

Local agencies may elect to use either the standard ELECTRIC VEHICLE CHARGING (D9-11b) sign or the alternate ELECTRIC VEHICLE CHARGING (D9-11b Alternate) sign in accordance with the recommendations of the Manual on Uniform Traffic Control Devices (MUTCD). The department will plan to use the alternate symbol sign on state highways once a policy is established and recommends local agencies also use the alternate symbol sign to maintain consistency. Local agencies electing to use the alternate symbol sign must maintain an inventory of locations where the sign is used under their jurisdiction in accordance with the conditions of the interim approval. Any site where the sign is installed must be modified if necessary to a condition that meets requirements of the MUTCD within three months of the issuance of a final rule regarding this application. The sign shall be removed if it is determined to be the cause of a serious safety concern or if FHWA terminates this interim approval.

Please contact the Local Policy Unit at dot.LocalPolicy@illinois.gov with any questions about this interim approval.

Sincerely,

A handwritten signature in cursive script that reads "Darrell Lewis".

Darrell W. Lewis, P. E.
Acting Engineer of Local Roads and Streets

Attachment



U.S. Department
of Transportation
**Federal Highway
Administration**

NOV - 8 2011

1200 New Jersey Avenue, SE
Washington, D.C. 20590

In Reply Refer to:
HOTO-1

Ms. Christine Reed, P.E.
Director of Highways & Chief Engineer
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, IL 62764

Dear Ms. Reed:

Thank you for your letter of October 17 requesting approval to use alternative Electric Vehicle Charging General Services symbol signs on all highways in Illinois, including all local jurisdictions. Your request is made under the provisions of Section 1A.10 of the 2009 edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways* and our Interim Approval Memorandum IA-13 dated April 1, 2011.

Your request is approved. Please develop and periodically update a list of all locations where alternative Electric Vehicle Charging General Services symbol signs are installed in Illinois. Your specific approval has been assigned the following number and title: "IA-13.5 – Alternative Electric Vehicle Charging General Services Symbol Sign – Illinois." Please reference this number and title in any future correspondence.

Thank you for your interest in improving highway safety. If we can be of further assistance on this matter, please contact Mr. Kevin Sylvester at kevin.sylvester@dot.gov.

Sincerely yours,

Mark R. Kehrli
Director, Office of Transportation
Operations



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

COPY

R.

October 17, 2011

Mr. Mark R. Kehrli
Director, Office of Transportation Operations
Federal Highway Administration
1200 New Jersey Avenue, S.E., HOTO-1
Washington, DC 20590

Dear Mr. Kehrli:

In accordance with the April 1, 2011 Interim Approval Memorandum (IA-13), we request interim approval to utilize Traffic Signal Photo Enforced (D9-11b Alternate) Electric Vehicle Charging symbol signs at all applicable locations in Illinois.

We agree to comply with Item D in Paragraph 18 of Section 1A.10 of the 2009 Manual on Uniform Traffic Control Devices requiring restoration of the sites of the interim approval to a condition that will comply with the provisions in this Manual within 3 months following the issuance of a final rule. We will terminate the use of the signs at any time we determine any significant safety concerns directly or indirectly attributable to their use. We understand that the FHWA, Office of Transportation Operations has the right to terminate the interim approval at any time if there is an indication of safety concerns.

If you have any questions regarding this interim approval request, please contact Justan Mann, Acting Engineer of Operations, 2300 South Dirksen Parkway, Springfield, Illinois 62764, or telephone him at (217) 782-7231.

Sincerely,

Christine Reed, P.E.
Director of Highways
Chief Engineer

A handwritten signature in black ink that reads "Justan Mann".

By: Justan Mann, P.E., S.E.
Acting Engineer of Operations

cc: Aaron Weatherholt
bcc: Norman R. Stoner
Bill Frey
Darrell Lewis



U.S. Department
of Transportation
**Federal Highway
Administration**

Memorandum

Subject: **INFORMATION:** MUTCD – Interim
Approval for Optional Use of an
Alternative Electric Vehicle Charging
General Service Symbol Sign

Date: APR 1 - 2011

From: Jeffrey A. Lindley
Associate Administrator for Operations

In Reply Refer To:
HOTO-1

To: Federal Lands Highway Division Engineers
Division Administrators

Purpose: The purpose of this memorandum is to issue an Interim Approval for the optional use of a General Service symbol sign that provides road users direction to electric vehicle charging facilities that are open to the public. Interim Approval allows interim use, pending official rulemaking, of a new traffic control device, a revision to the application or manner of use of an existing traffic control device, or a provision not specifically described in the *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD).

Background: The Oregon and Washington departments of transportation have requested that the Federal Highway Administration (FHWA) consider alternative symbols for the current Electric Vehicle Charging General Service symbol (D9-11b) sign shown in Figure 2I-1 of the 2009 Edition of the MUTCD in anticipation of deploying electric vehicle charging facilities in these and four other states. The current symbol is a modification of the existing Gas General Service symbol (D9-7), into which the legend EV has been incorporated, similar to Alternative Fuel symbols such as diesel (D), compressed natural gas (CNG), and ethanol (E85). The request was predicated on the presumption that, for electric vehicle charging facilities, the fuel pump and hose of the Alternative Fuel symbols do not apply or could be confusing. Instead, the representation of an electrical cord was thought to be more appropriate. A new symbol was evaluated and subsequently recommended by a Traffic Control Devices Pooled-Fund Study report. However, the requesting agencies believe that the presence of a lightning bolt within this symbol suggests a risk of electrical shock, which would discourage the use of electric vehicles.

Research on the Alternative Electric Vehicle Charging Symbol Sign: In November 2010, a report of the Traffic Control Devices Pooled-Fund Study that evaluated several alternative symbols for electric vehicle charging was released. The symbol that had the greatest comprehension and legibility distance was a modification of the symbol used on the Electric Vehicle Charging (D9-11b) sign in the 2009 MUTCD, with the hose replaced by a power cord and plug and the addition of a lightning bolt within the pump window to convey an electrical charge. A similar version without the lightning bolt element was not



evaluated in the subject study. In March 2011, a comprehension evaluation was completed that evaluated the 2010 Pooled-Fund Study recommended symbol and a modified version that deleted the lightning bolt element. Comprehension was found to be similar both with and without the lightning bolt. Additional questions were asked of the test subjects regarding their perception of the relative risk of electrical shock for the new symbols with and without the lightning bolt. The responses indicated that the presence of the lightning bolt did not increase the perceived risk of electrical shock. In addition, overall, the perceived risk of electric shock at an electric vehicle charging facility was relatively low when compared with other items that could pose risks of electric shock.

The results included in the Final Report for this evaluation showed that the correct meaning of the alternative sign was identified by a sufficient percentage of the survey participants for this application. The removal of the lightning bolt element from the symbol reduces its visual complexity and this modification is expected to provide at least comparable recognition and legibility.

FHWA Evaluation of Results: The Office of Transportation Operations has reviewed the available data and considers the alternative sign (see attachment, p. IA-13-1) to be satisfactorily successful for the application of providing direction to an electric vehicle charging station. The alternative sign provides agencies with a means of directing road users to an electric vehicle charging station without the use of a word legend sign or supplemental plaque, thus reducing the informational load presented to the observer and promoting a uniform symbol for this general service.

The design of the alternative Electric Vehicle Charging symbol sign is not proprietary and can be used by any jurisdiction that requests and obtains interim approval from the FHWA to use the sign. The FHWA believes that the alternative Electric Vehicle Charging symbol sign has a low risk of safety or operational concerns.

This Interim Approval does not create a new mandate compelling the use of this new sign, but will allow agencies to install this sign, pending official MUTCD rulemaking, to provide direction to road users to electric vehicle charging stations.

Agencies may also continue to use the ELECTRIC VEHICLE CHARGING (D9-11bP) plaque as an educational message mounted below the alternative Electric Vehicle Charging symbol sign in a Directional Assembly.

Agencies may use the alternative Electric Vehicle Charging symbol in General Services (D9-18 Series) guide signs.

Conditions of Interim Approval: The FHWA will grant Interim Approval for the optional use of an alternative Electric Vehicle Charging symbol sign (see attachment, p. IA-13-1) to any jurisdiction that submits a written request to the Office of Transportation Operations. A State may request Interim Approval for all jurisdictions in that State. Jurisdictions using the sign under this Interim Approval must agree to comply with the technical conditions detailed below, to maintain an inventory list of all locations where the signs are installed, and to comply with Item D in Paragraph 18 of Section 1A.10 of the 2009 MUTCD, which requires:

“An agreement to restore the site(s) of the Interim Approval to a condition that complies with the provisions in this Manual within 3 months following the issuance of a Final Rule on this traffic control device; and terminate use of the device or application installed under the interim approval at any time that it determines significant safety concerns are directly or indirectly attributable to the device or application. The FHWA’s Office of Transportation Operations has the right to terminate the interim approval at any time if there is an indication of safety concerns.”

1. General Conditions:

The use of the alternative Electric Vehicle Charging symbol sign is optional. However, if an agency opts to use this sign under this Interim Approval, the following design and installation requirements shall apply and shall take precedence over any conflicting provisions of the MUTCD.

2. Allowable Uses:

Installation and use of the alternative Electric Vehicle Charging symbol sign shall conform to the general provisions for General Services signs in accordance with MUTCD Chapter 2I.

3. Sign Design and Size:

- a. The design of the alternative Electric Vehicle Charging symbol sign shall be as shown in the attached sign detail.
- b. The minimum size of the alternative Electric Vehicle Charging symbol sign shall be 24 inches in width by 24 inches in height.
- c. The size of the alternative Electric Vehicle Charging symbol sign shall otherwise be in accordance with those of other D9-11 series signs.

4. Other:

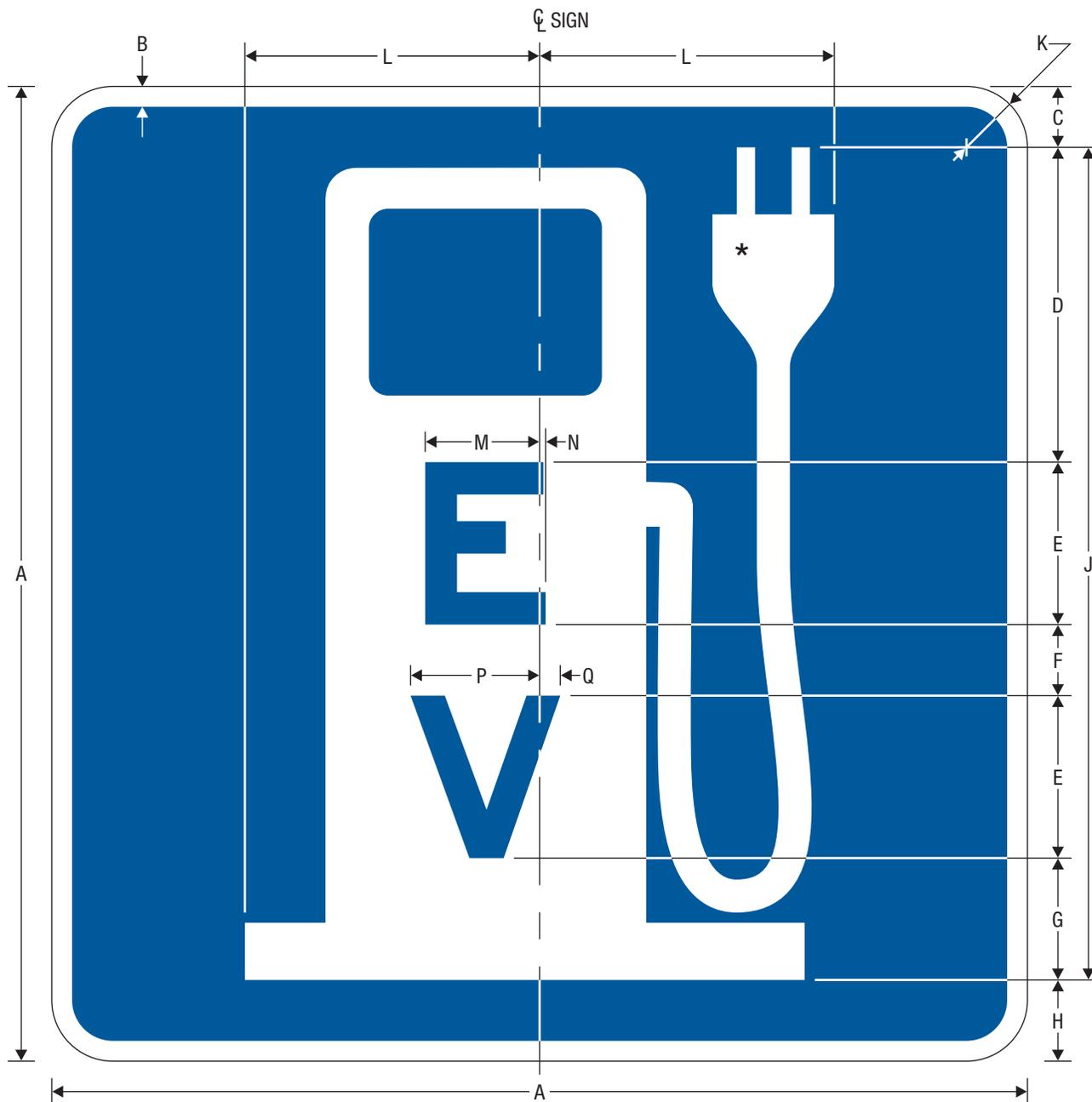
Except as otherwise provided above, all other provisions of the MUTCD applicable to signs shall apply to the alternative Electric Vehicle Charging General Service symbol sign.

Any questions concerning this Interim Approval should be directed to Mr. Kevin Sylvester at Kevin.Sylvester@dot.gov.

Attachment

cc:

Associate Administrators
 Chief Counsel
 Chief Financial Officer
 Directors of Field Services
 Director of Technical Services



D9-11b (Alternate)
 Electric Vehicle Charging (Alternate Symbol)

	A	B	C	D	E	F	G	H	J	K	L	M
C	24	0.5	1.5	7.75	4 E(m)	1.75	3	2	20.5	1.5	7.25	2.814
	30	0.75	1.875	9.625	5 E(m)	2	4	2.5	25.625	1.875	9.063	3.518

N	P	Q
0.148	3.174	0.507
0.185	3.968	0.635

* See page IA-13-2 for symbol design

COLORS: LEGEND, BACKGROUND — BLUE (RETROREFLECTIVE)
 SYMBOL, BORDER — WHITE (RETROREFLECTIVE)

