

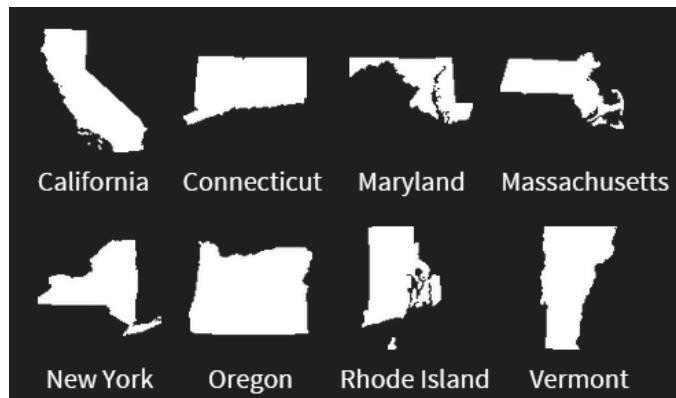


## ELECTRIC VEHICLE CHARGING SIGNING: RECOMMENDED PRACTICES



June 2015

**ZEV Program Implementation  
Task Force**



## MULTI-STATE ZEV TASK FORCE

On October 24, 2013, the governors of eight states signed a memorandum of understanding (MOU) committing to coordinated action to ensure the successful implementation of their state zero-emission vehicle (ZEV) programs. ZEVs include pure battery-electric vehicles, plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles. Collectively, these states are committed to having at least 3.3 million ZEVs operating on their roadways by 2025. The MOU identifies joint cooperative actions the signatory states will undertake, and additional actions that individual jurisdictions are considering, to build a robust market for ZEVs.

The MOU created a multi-state ZEV Program Implementation Task Force and called for the development of the Multi-State ZEV Action Plan. The Task Force, composed of state officials, serves as a forum for coordination and collaboration on the full range of program development, support, and implementation issues to promote effective and efficient implementation of ZEV regulatory initiatives. NESCAUM, a nonprofit association of state environmental agencies, serves as the facilitator and provides technical and policy assistance to the Task Force. The Multi-State ZEV Action Plan provides additional detail and specificity to the commitments in the MOU and is intended to assist in developing consistent and complementary measures within and across our states to foster efficient market development and maximize the ownership experience for consumers.

This report was developed by the Task Force's ZEV Infrastructure Planning Implementation Team. The Task Force would like to thank Ashley Horvat, formerly of the Oregon Department of Transportation, and Sarah McKearnan of the Vermont Agency of Natural Resources for their leadership as co-chairs of the Team; Elaine O'Grady as lead NESCAUM staff; representatives on the Team from state transportation agencies, including Barbara Abrahamer of the New York State Department of Transportation, Gina Campoli of VTrans, Steve Cliff of CalTrans, and Rick Hanley of the Connecticut Department of Transportation; and staff from the Federal Highway Administration for their assistance and input, especially Diane Turchetta and Kevin Sylvester.

## ELECTRIC VEHICLE CHARGING SIGNING: RECOMMENDED PRACTICES

A key action in the Multi-State Zero Emission Vehicle (ZEV) Action Plan is to provide clear and accurate signing to direct ZEV drivers to refueling and charging stations and dedicated parking sites. This document identifies recommended practices for implementing the actions in the

Multi-State ZEV Action Plan related to electric vehicle charging signing. Uniform signing will help plug-in electric vehicle (PEV) drivers easily locate charging stations.

### **ACTION #7**

*Provide clear and accurate signage to direct ZEV users to charging and fueling stations and parking*



In general, two basic types of signs are needed for electric vehicle charging stations: directional signs and regulatory signs. Directional signs are used to safely guide PEV drivers to charging stations. These signs can also help to increase general public awareness of PEVs as a transportation option and improve range confidence for PEV drivers. Regulatory signs are used to convey restrictions related to charging and associated parking, such as time or access limits (e.g., no parking unless the vehicle is charging).

The Federal Highway Administration (FHWA) is charged with setting national standards for traffic control devices, including all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, installed on any street, highway, bikeway, or private road open to public travel. These standards are established by rulemaking and set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). There have been significant developments in the PEV market since the MUTCD was last revised in 2009. Therefore, as discussed in more detail below, the FHWA has issued two memorandums to establish policies on signing for electric vehicle charging stations.

### ✓ **Use the Alternative Electric Vehicle Charging General Service Symbol To Direct Road Users to Electric Vehicle Charging Stations**

To direct PEV drivers to electric vehicle charging stations, the current edition of the MUTCD, which was released in 2009, allows transportation agencies to install a general service symbol that consists of a representation of a fuel pump and hose that

incorporates the legend EV. In response to concerns that this symbol could be confusing to drivers, the FHWA issued an interim approval in April 2011 for the optional use of an alternative electric vehicle charging general service symbol that incorporates a representation of an electrical cord (see figure below) rather than a fuel pump and hose.<sup>1</sup>

The FHWA's interim approval does not compel use of the alternative electric vehicle charging general service symbol but allows transportation agencies to request approval to use this symbol until the MUTCD is revised and may continue to use the alternate symbol thereafter if it is included in the revised MUTCD. The FHWA anticipates that the next revision of the MUTCD will include an option to use the alternative electric vehicle charging general service symbol as a standard sign. To complete a rulemaking to revise the MUTCD, it will take the FHWA approximately two years from the time that a Notice of Proposed Amendment is released for public comment.



D9-11b (Alternate)

In the meantime, to ensure that signing directing drivers to electric vehicle charging stations is clear and consistent, the recommended practice is to use the alternative electric vehicle charging general service symbol. The FHWA will grant interim approval to any state transportation agency that submits a request to the Office of Transportation Operations. A short letter making the request will suffice, and the FHWA typically grants requests for interim approval within a few days. As a condition of interim approval, the FHWA requires jurisdictions that use the alternate sign to keep track of the locations where the signs are installed. As of June 1, 2015, the FHWA has granted interim approval to the following states: California, Connecticut, Illinois, Maryland, Minnesota, New Jersey, New York, Oregon, Vermont, Virginia, and Washington.<sup>2</sup>

<sup>1</sup>FHWA, Interim Approval for Optional Use of an Alternative Electric Vehicle Charging General Service Symbol Sign (Apr. 1, 2011), available at: [http://mutcd.fhwa.dot.gov/resources/interim\\_approval/ia13/](http://mutcd.fhwa.dot.gov/resources/interim_approval/ia13/)

<sup>2</sup>See [http://mutcd.fhwa.dot.gov/resources/interim\\_approval/ialistreq.htm#ia13](http://mutcd.fhwa.dot.gov/resources/interim_approval/ialistreq.htm#ia13)

## ✓ **Use Plaques To Indicate When a Charging Station Includes a DC Fast Charger**

When using signs to direct drivers to charging stations, a recommended practice is to use an all-word “FAST” plaque (see figure below and attachments for design specifications) in conjunction with the alternative electric vehicle charging station



general service symbol to indicate when a charging station includes a DC fast charger. Note that any necessary state approvals should be obtained prior to using such a plaque.<sup>3</sup> The use of a “FAST” plaque will clearly identify for PEV drivers EV charging stations that include a DC fast charger from those that do not.

## ✓ **Adhere to the FHWA’s Recommendations for Signing To Communicate Restrictions for EV Charging Stations and Associated Parking Spaces**

The current edition of the MUTCD does not include any standards for signs installed for electric vehicle charging facilities at on-street parking locations or other parking facilities. Such signs are sometimes needed, for example, to convey parking restrictions and facilitate enforcement. To promote uniformity among jurisdictions, the FHWA issued a memorandum in June 2013<sup>4</sup> that recommends a number of signs and optional plaques that may be used by state and local transportation agencies for this purpose until the FHWA establishes standard signs in the next edition of the MUTCD. The FHWA expects to include such signs in the next revision of the MUTCD, which will take approximately two years from the time a Notice of Proposed Amendment is released for public comment. In the meantime, following the FHWA’s recommendations will ensure that regulatory signs for EV charging stations and parking spaces are uniform and consistent and comply with the requirements of the MUTCD. The figure below is an example of one of the signs recommended by the FHWA.

<sup>3</sup>For example, California approved the use of a “FAST” header plaque in the California Department of Transportation Traffic Operations Policy Directive #13-01, available at: [http://mutcd.fhwa.dot.gov/resources/interim\\_approval/ialistreq.htm#ia13](http://mutcd.fhwa.dot.gov/resources/interim_approval/ialistreq.htm#ia13)

<sup>4</sup>FHWA, Regulatory Signs for Electric Vehicle Charging and Parking Facilities (June 17, 2013), available at: <http://mutcd.fhwa.dot.gov/resources/policy/rsevepfmemo/>



It is important to note that only word legends may be used on signs and plaques for on-street electric vehicle charging and parking sites because, according to the FHWA, no symbol has been developed and tested to ensure that it effectively conveys the regulations associated with electric vehicle charging and associated parking sites. However, to clearly identify a charging site, the alternative electric vehicle charging general service symbol may be posted at a charging site along with regulatory signs and plaques. If posted together, the alternative electric vehicle charging general service symbol should be posted above the regulatory sign to make it easier for drivers to see and locate the charging station.

The MUTCD and related FHWA policies apply to public parking areas such as on-street parking, rest areas, park and rides, etc. While the MUTCD does not legally apply to parking areas that are separated from public roads, such as parking lots and garages, providing consistency will help all drivers to recognize and understand electric vehicle charging station signs. In addition, some states require that signs installed on private roadways and parking areas conform to the MUTCD to be enforceable, which is a good practice to promote uniform signing. Lastly, to insure that signs comply with State statutes and are enforceable, coordination with the applicable state transportation agency and/or other signing regulatory body is advised.

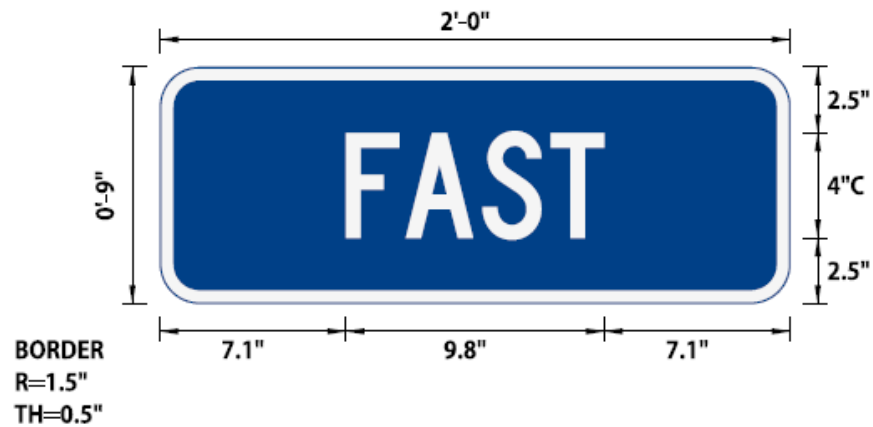
# **Appendix A:**

## **FAST Plaque Design Specifications**

```
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DATE/TIME = DGN$SYTIME0123456
USER = DGN$USERNAME
```


## SIGN DETAIL

1:7



Dimensions are in inches, tenths

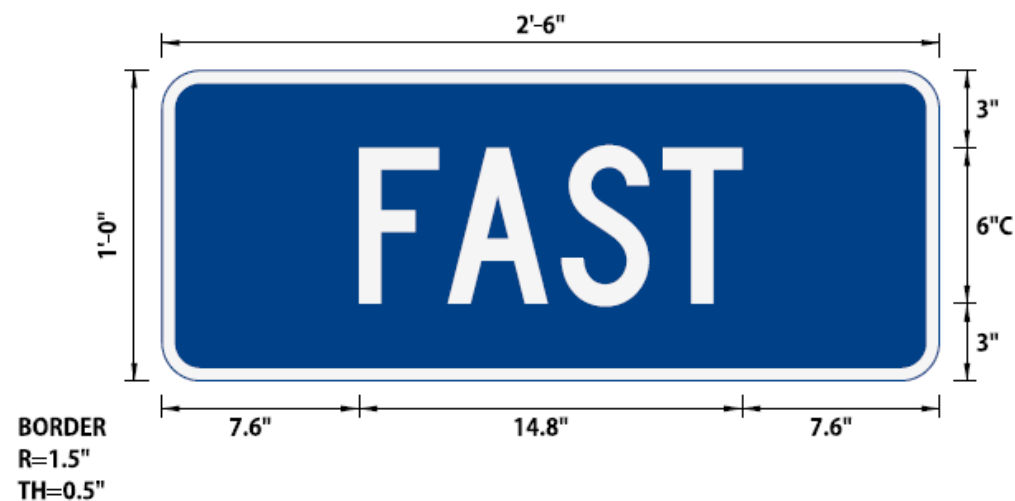
Letter locations are panel edge to lower left corner

	<b>MO Traffic</b>
LOCATION NUMBER(S):	
MUTCD NUMBER:	
WIDTH X HEIGHT: 2' - 0" x 0' - 9"	
SIGN AREA:	1.5 Sq. Ft.
MOUNTING:	Ground
BACKGROUND COLOR:	Blue
LEGEND/BORDER COLOR:	White/White

[illegible][illegible]


## SIGN DETAIL

1:7



Dimensions are in inches, tenths

Letter locations are panel edge to lower left corner

	<b>MO Traffic</b>
LOCATION NUMBER(S):	
MUTCD NUMBER:	
WIDTH X HEIGHT: 2' - 6" x 1' - 0"	
SIGN AREA:	2.5 Sq. Ft.
MOUNTING:	Ground
BACKGROUND COLOR:	Blue
LEGEND/BORDER COLOR:	White/White

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