



**Minnesota Department of Transportation**

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

**Memo**

**TOPIC STATUS**

*Signing Subcommittee:*  
03/26/15

*Executive Committee:*

04/29/15

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

**FROM:** Heather Lott *HL*  
State Signing Engineer

**DATE:** April 24, 2015

**SUBJECT:** TEO Signing Committee Topic # 404  
Electric Vehicle (EV) Charging Station Signing

On behalf of the TEO Signing Committee, I am requesting that the TEO Executive Committee review and approve the following recommendations regarding new guidelines for the signing certain electric vehicle charging stations. If approved, this policy will be included in the next Traffic Engineering Manual (TEM) update.

MN MUTCD, Section 2I.3, allows signing for EV charging stations on General Motorist Service signs. The symbol for EV charging stations in the MN MUTCD has been allowed to be modified by the Interim Approval from FHWA. [http://mutcd.fhwa.dot.gov/resources/interim\\_approval/ia13/](http://mutcd.fhwa.dot.gov/resources/interim_approval/ia13/)

MnDOT's standard sign design for General Motorist Services uses all words messages. The MN MUTCD allows the option of symbols as alternatives to word messages however symbols and word shall not be intermixed. Therefore, MnDOT could add the word message "EV CHARGING" to the General Motorist Services signs but not the symbol.

According to MnDOT Traffic Engineering Manual Chapter 6, EV charging stations fall under the category Gas and/or Alternate Fuel. They should meet the following criteria: fuel and oil, restrooms and drinking water, continuous staffed operation 12 hours a day 7 days per week and public telephone. In this case the "fuel" is the EV charging station. The service is required to be located within 2 miles of the interchange.

EV charging stations are not usually located at gas stations and are not always staffed or located where oil, water, restrooms and phones are available for road users. The location of these smaller charging stations will not be as easy as finding the location of a gas station. Trailblazing and signage at the EV charging station itself will be necessary.

There are roughly ten high power stations in Minnesota and numerous other public stations according to this website. <http://www.plugshare.com/?latitude=40.714683&longitude=-74.005973&spanLat=0.652649&spanLng=1.323853>

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In March of 2015, the TEO Signing Committee discussed the requirements for EV charging stations and agreed to the following guidance:

- Only EV high power charging stations will be considered for signing. The EV high power charging station should be located within 2 miles of the interchange and available to the public 12 hours per day 7 days per week.
- The route leading to the EV high power charging station and the charging station itself should be clearly identified with EV charging station signs.
- The EV high power charging station parking facilities should be signed with regulatory signs identifying parking spaces for only electric vehicle charging. Standard regulatory sign options are shown in the June 17, 2013, FHWA Memorandum: Regulatory Signs for Electric Vehicle Charging and Parking Facilities <http://mutcd.fhwa.dot.gov/resources/policy/rsevcpfmemo/>
- The EV high power charging station and parking facilities should be lit.
- Installation and maintenance of trailblazing signs beyond the exit ramp and on site facility signing will be the responsibility of the local road authority and requester.
- Trailblazing signs located on local roads may use either white legend on blue background or the D9-11b (Alternate) symbol.

Sign designs have been developed for the General Motorist Service Signs and are attached to this memo. These designs will be included in the next update of the MnDOT Standard Signs Manual and Summary. Additional FHWA sign designs are attached this memo for regulatory signs developed and the D9-11b (Alternate) symbol. It is expected that these signs will be adopted into the next Federal MUTCD.

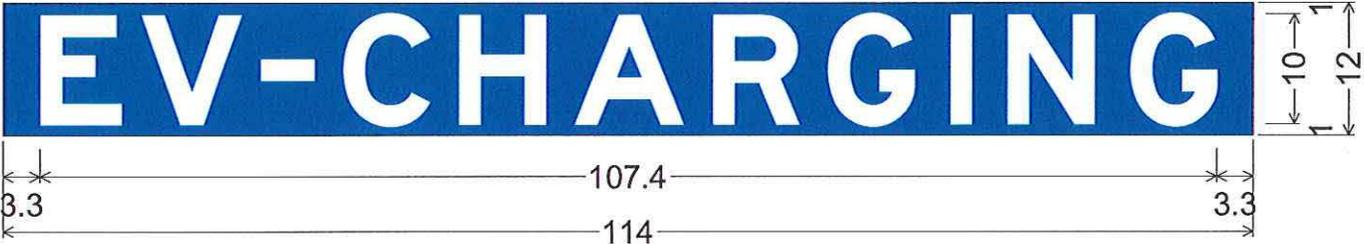
The TEO Signing Committee is recommending the above guidance be approved by the TEO Executive Committee to be included in the next update of the Traffic Engineering Manual (TEM).

Cc: TEO Executive Committee  
TEO Signing Committee

Attachments

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No border, White on Blue;  
"EV-CHARGING" E Mod;



1.5" Radius, 0.8" Border, White on Blue;

"EV-CHARGING" D specified length; Arrow 1 - 6.0" 0°;



U.S. Department  
of Transportation  
Federal Highway  
Administration

# Memorandum

Subject: **INFORMATION:** Regulatory Signs for  
Electric Vehicle Charging and Parking  
Facilities

Date: JUN 17 2013

From: Jeffrey A. Lindley  
Associate Administrator for Operations

In Reply Refer To:  
HOTO-1

To: Division Administrators  
Directors of Field Services  
Director of Technical Services  
Resource Center Director

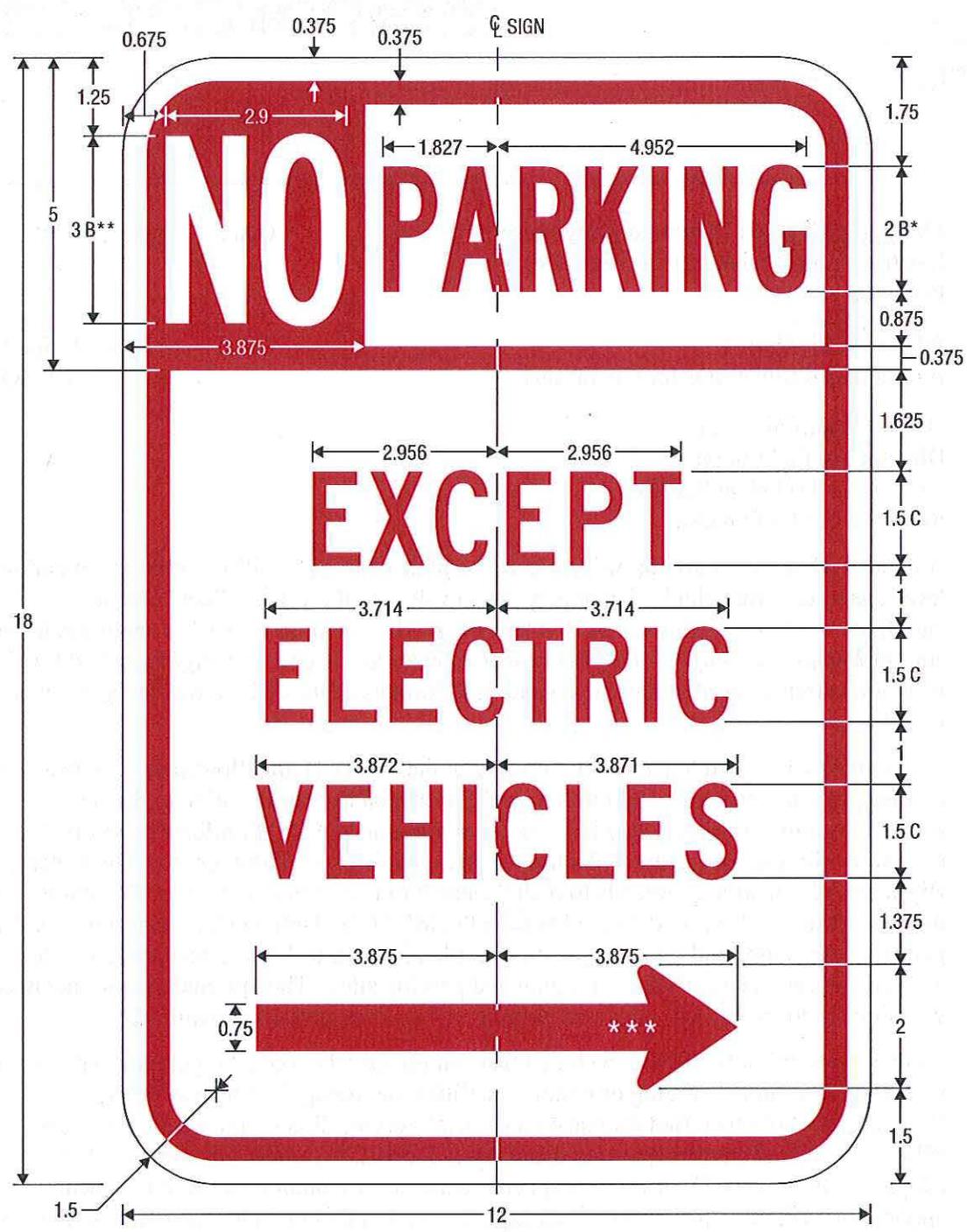
A number of agencies are installing electric vehicle charging facilities at on-street parking locations as electric vehicles become more prevalent in the vehicle fleet. Due to variations in local regulations, and the lack of standard signing for such a condition in the current *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), there are extreme variations in the legends and formats of the official traffic signs being installed.

While signs with word legends not currently in the MUTCD are allowed to be developed by transportation agencies without the need for official experimentation under the MUTCD provisions, this Policy is intended to promote a level of uniformity among the regulatory signing for on-street electric vehicle charging and parking sites. The Federal Highway Administration intends to include standard regulatory signing for this purpose in the next Notice of Proposed Amendment to the MUTCD. Until such time as a proposal is published, the signs and optional plaques detailed in the attached are recommended for use at on-street electric vehicle charging and parking sites. The optional plaques address variations in local regulations where posting of those regulations is required.

To date, no symbol has been developed that can effectively convey regulations associated with electric vehicle charging or parking facilities, including the Electric Vehicle Charging symbols specified for use on a General Service directional sign found in the MUTCD and the Interim Approval dated April 1, 2012. Symbols that have not been adopted in the MUTCD for use in a specific application cannot be used in untested applications without approved official experimentation that includes the requisite human factors evaluation for comprehension and legibility. Accordingly, regulatory signs for electric vehicles and vehicle charging facilities display only word legends to convey the specific requirements or restrictions.

Please share this information with State and local transportation agencies. For more information or questions regarding this matter, please contact Mr. Kevin Sylvester, Office of Transportation Operations, at [Kevin.Sylvester@dot.gov](mailto:Kevin.Sylvester@dot.gov).

Attachments



R7-111

NO PARKING EXCEPT ELECTRIC VEHICLES

UPPER LEFT SECTION

COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
 BACKGROUND — RED (RETROREFLECTIVE)

UPPER RIGHT SECTION

COLORS: LEGEND, BORDER — RED (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

\* Reduce character spacing 40%.

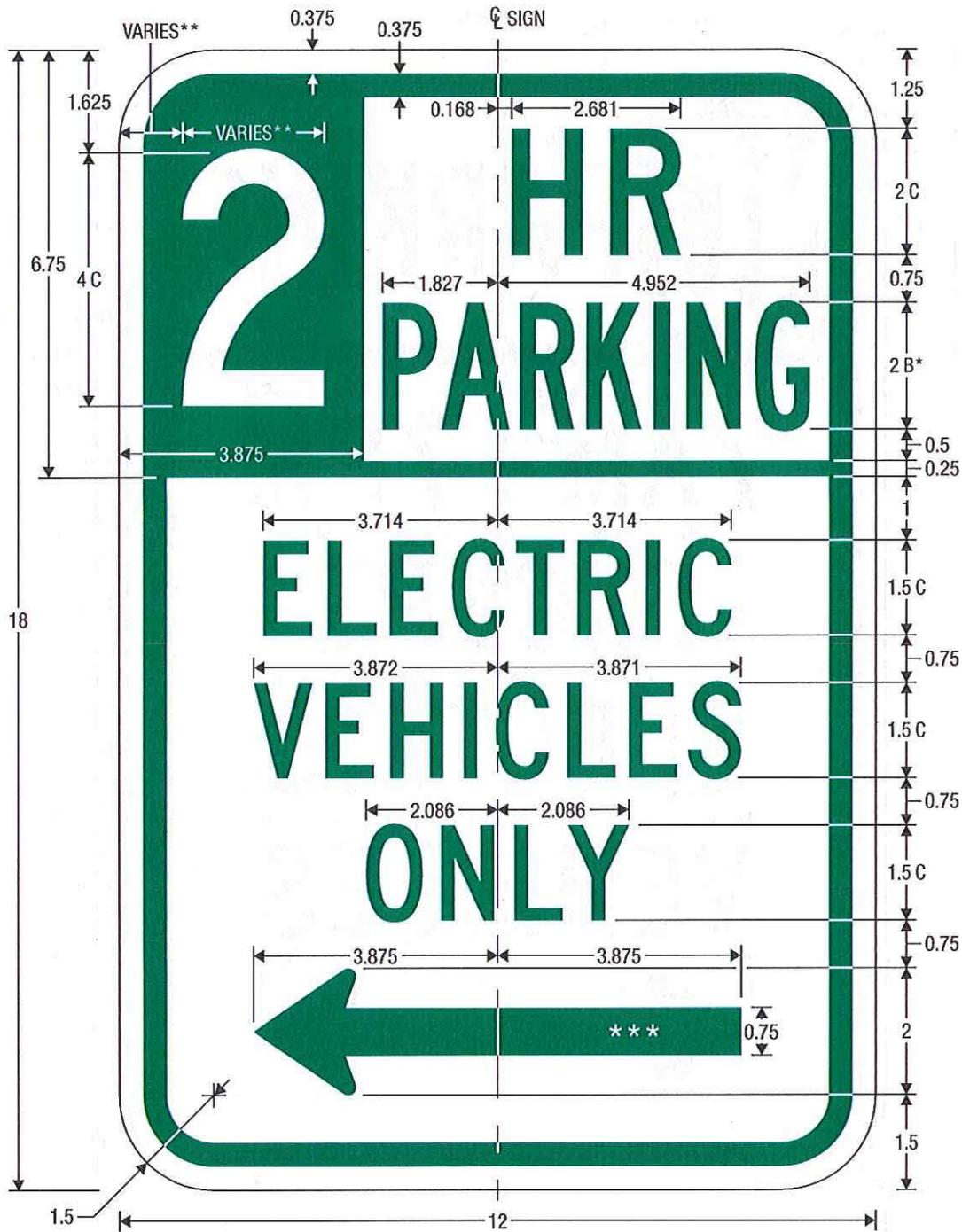
\*\* Reduce character spacing 60%.

\*\*\* Type D Arrow.

LOWER SECTION

COLORS: LEGEND, BORDER — RED (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)





R7-112

ELECTRIC VEHICLE PARKING (TIME LIMIT)

UPPER LEFT SECTION

COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
 BACKGROUND — GREEN (RETROREFLECTIVE)

UPPER RIGHT SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

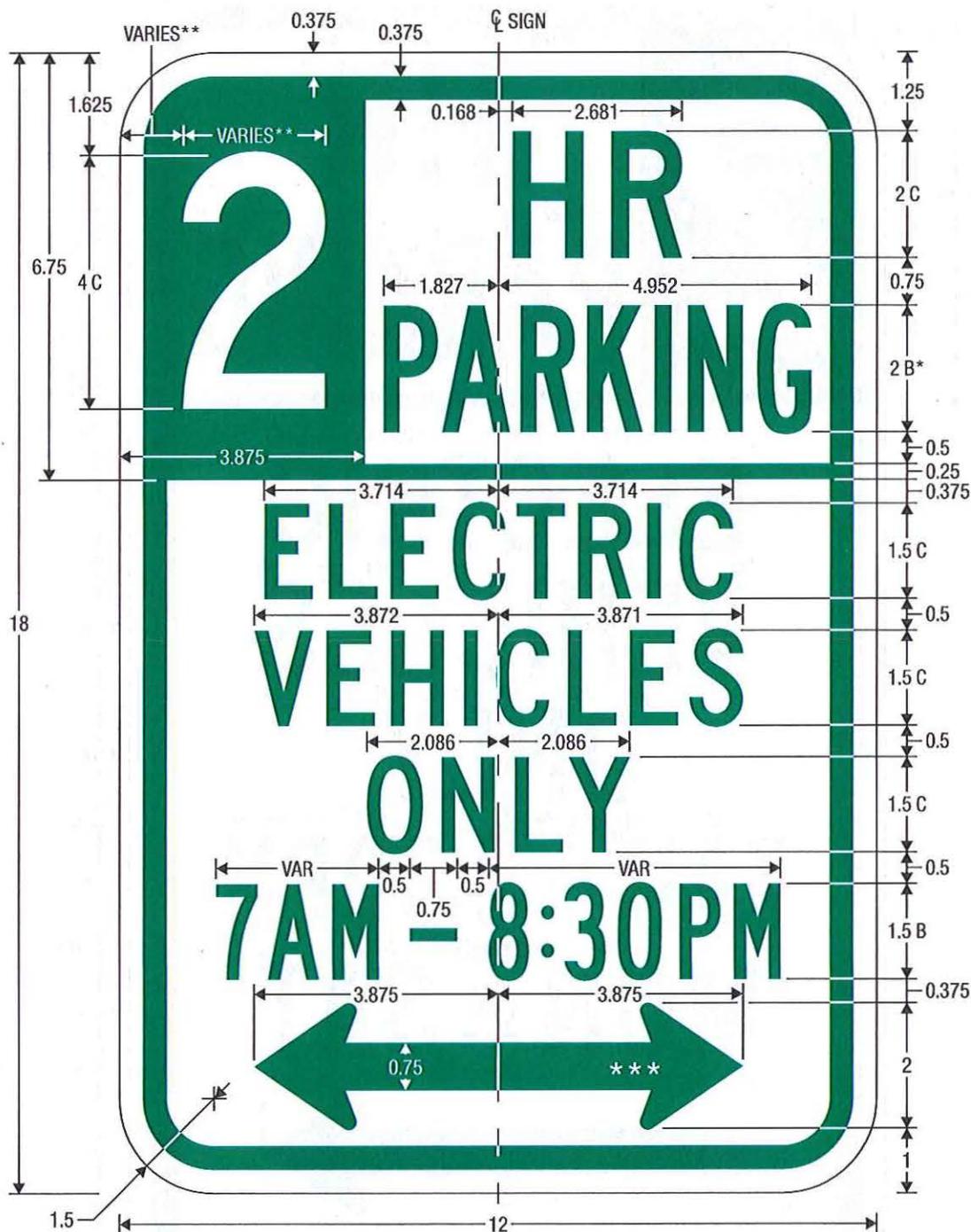
\* Reduce character spacing 40%.

\*\* Optically space numeral.

\*\*\* Type D Arrow.

LOWER SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)



R7-112a

ELECTRIC VEHICLE PARKING (TIME LIMIT, PART-TIME)

UPPER LEFT SECTION

COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
 BACKGROUND — GREEN (RETROREFLECTIVE)

UPPER RIGHT SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

\* Reduce character spacing 40%.

\*\* Optically space numeral.

\*\*\* Type D Arrow.

LOWER SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)



R7-112b

ELECTRIC VEHICLE PARKING (TIME LIMIT, PART-TIME)

UPPER LEFT SECTION

COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
 BACKGROUND — GREEN (RETROREFLECTIVE)

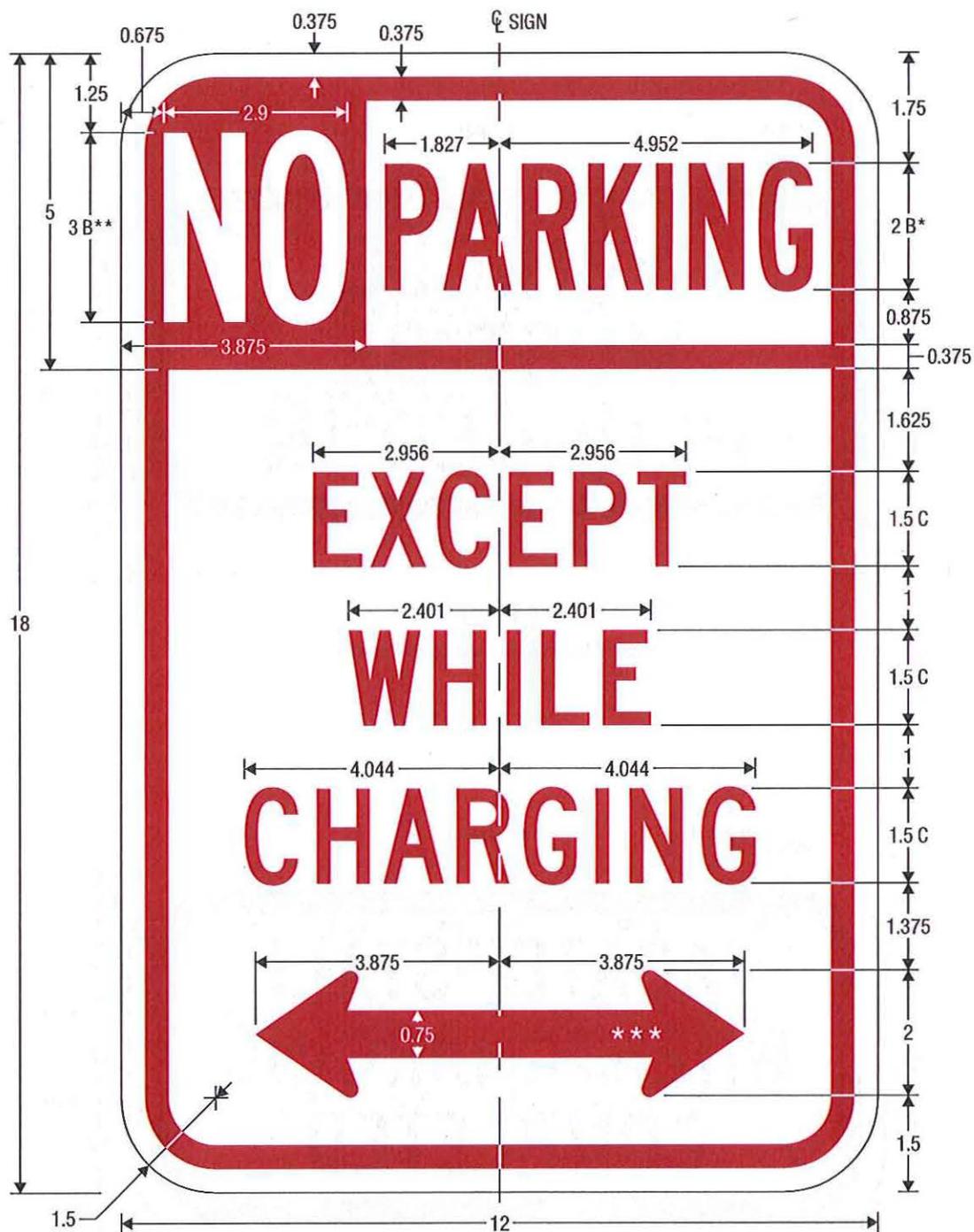
UPPER RIGHT SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

LOWER SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

- \* Reduce character spacing 40%.
- \*\* Optically space numeral.
- \*\*\* Type D Arrow.



R7-113

NO PARKING EXCEPT WHILE CHARGING

UPPER LEFT SECTION

COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
 BACKGROUND — RED (RETROREFLECTIVE)

UPPER RIGHT SECTION

COLORS: LEGEND, BORDER — RED (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

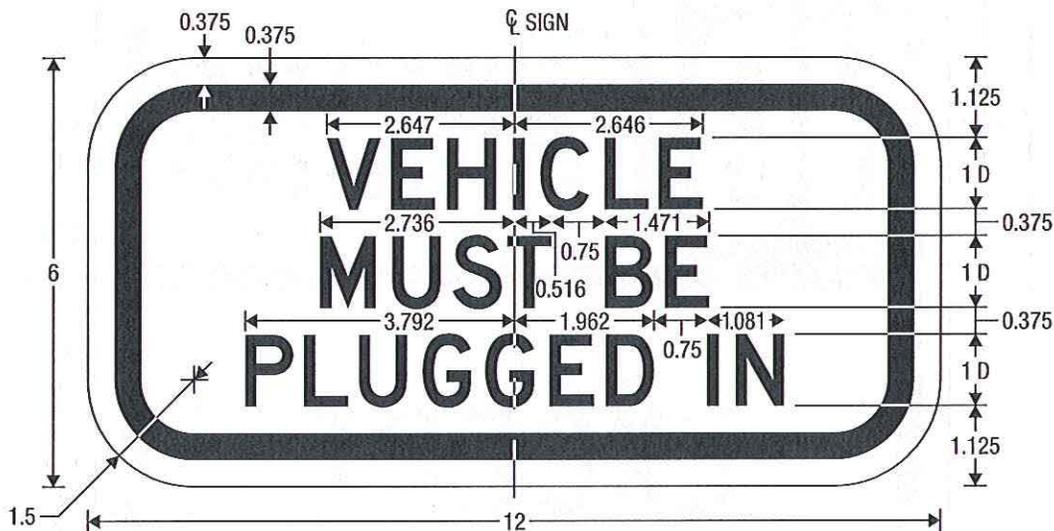
\* Reduce character spacing 40%.

\*\* Reduce character spacing 60%.

\*\*\* Type D Arrow.

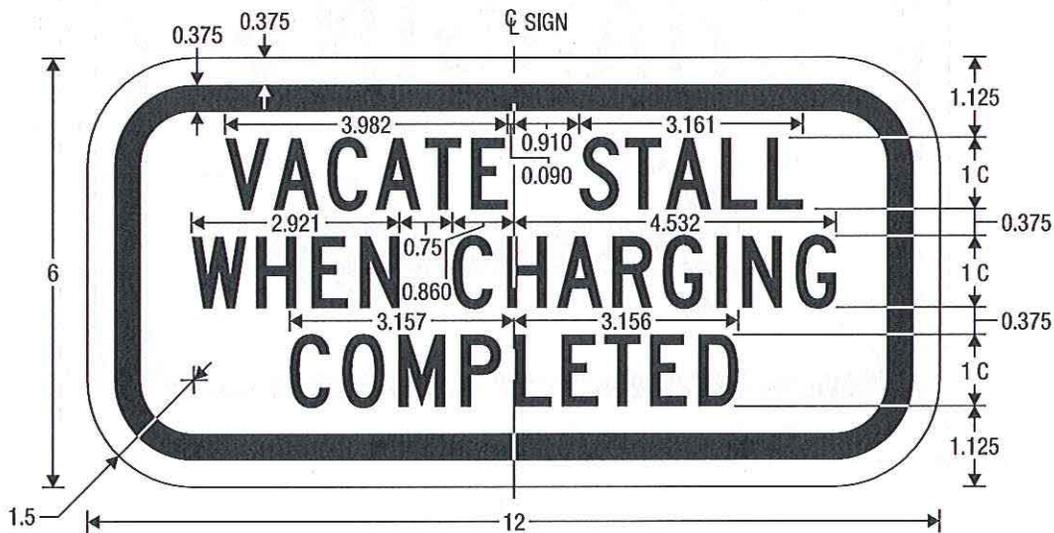
LOWER SECTION

COLORS: LEGEND, BORDER — RED (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)



R7-113aP

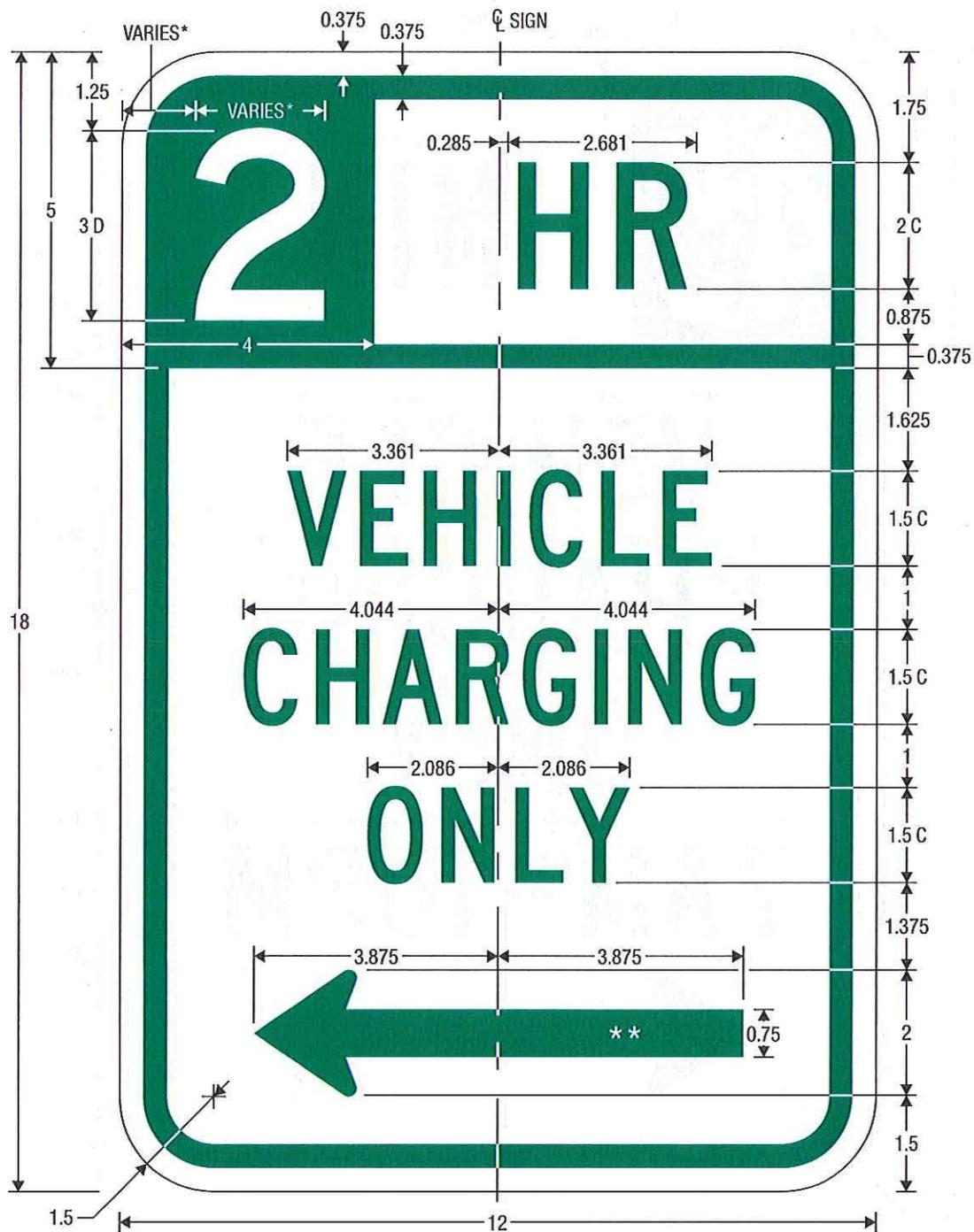
VEHICLE MUST BE PLUGGED IN (Plaque)



R7-113bP

VACATE STALL WHEN CHARGING COMPLETED (Plaque)

COLORS: LEGEND, BORDER — BLACK (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)



R7-114

VEHICLE CHARGING ONLY (TIME LIMIT)

\* Optically space numeral.  
 \*\* Type D Arrow.

UPPER LEFT SECTION

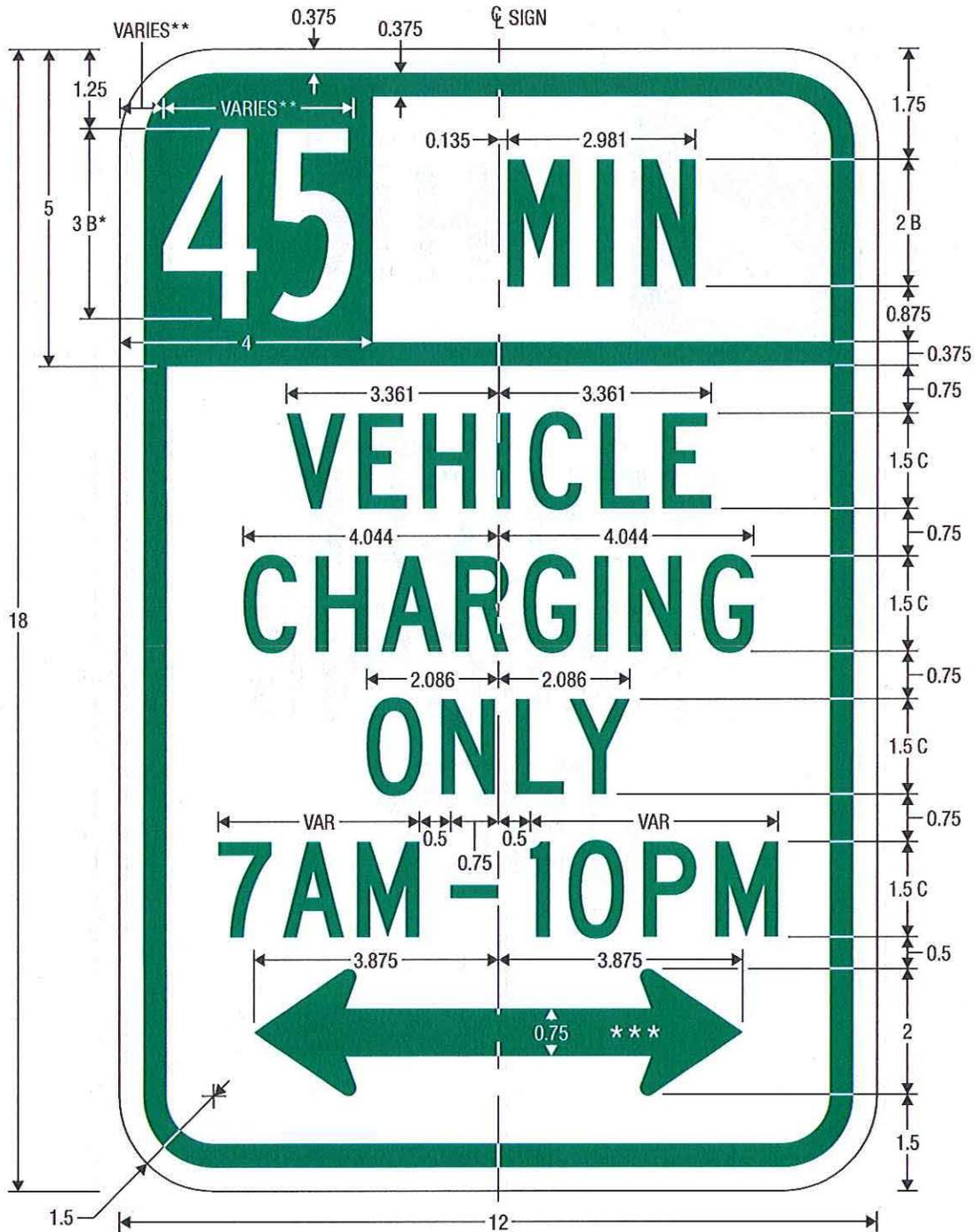
COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
 BACKGROUND — GREEN (RETROREFLECTIVE)

UPPER RIGHT SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

LOWER SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)



R7-114a

VEHICLE CHARGING ONLY (TIME LIMIT, PART-TIME)

UPPER LEFT SECTION

COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
 BACKGROUND — GREEN (RETROREFLECTIVE)

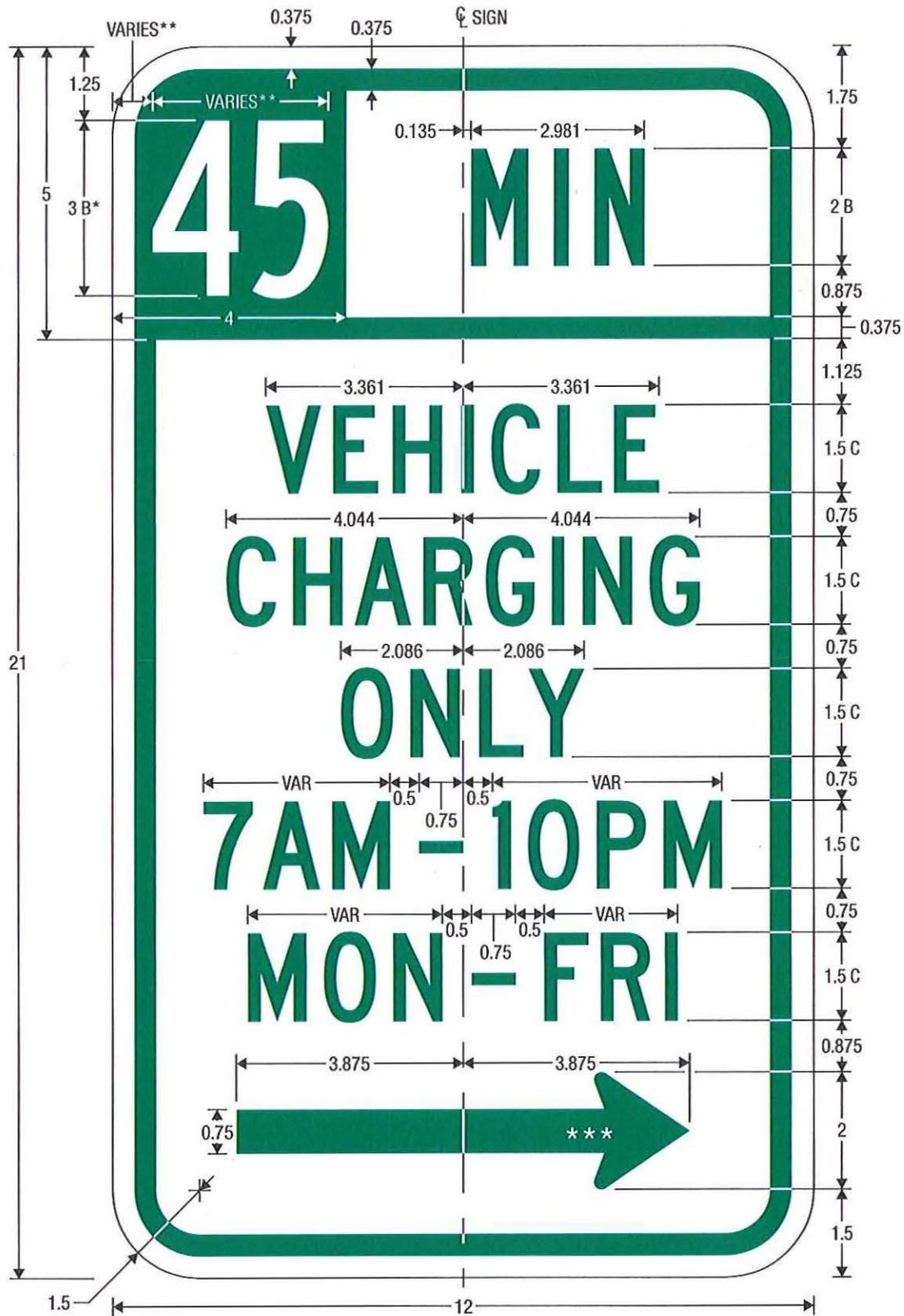
UPPER RIGHT SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

LOWER SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

- \* Reduce character spacing 50%.
- \*\* Optically space numerals.
- \*\*\* Type D Arrow.



R7-114b

VEHICLE CHARGING ONLY (TIME LIMIT, PART-TIME)

UPPER LEFT SECTION

COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
 BACKGROUND — GREEN (RETROREFLECTIVE)

UPPER RIGHT SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

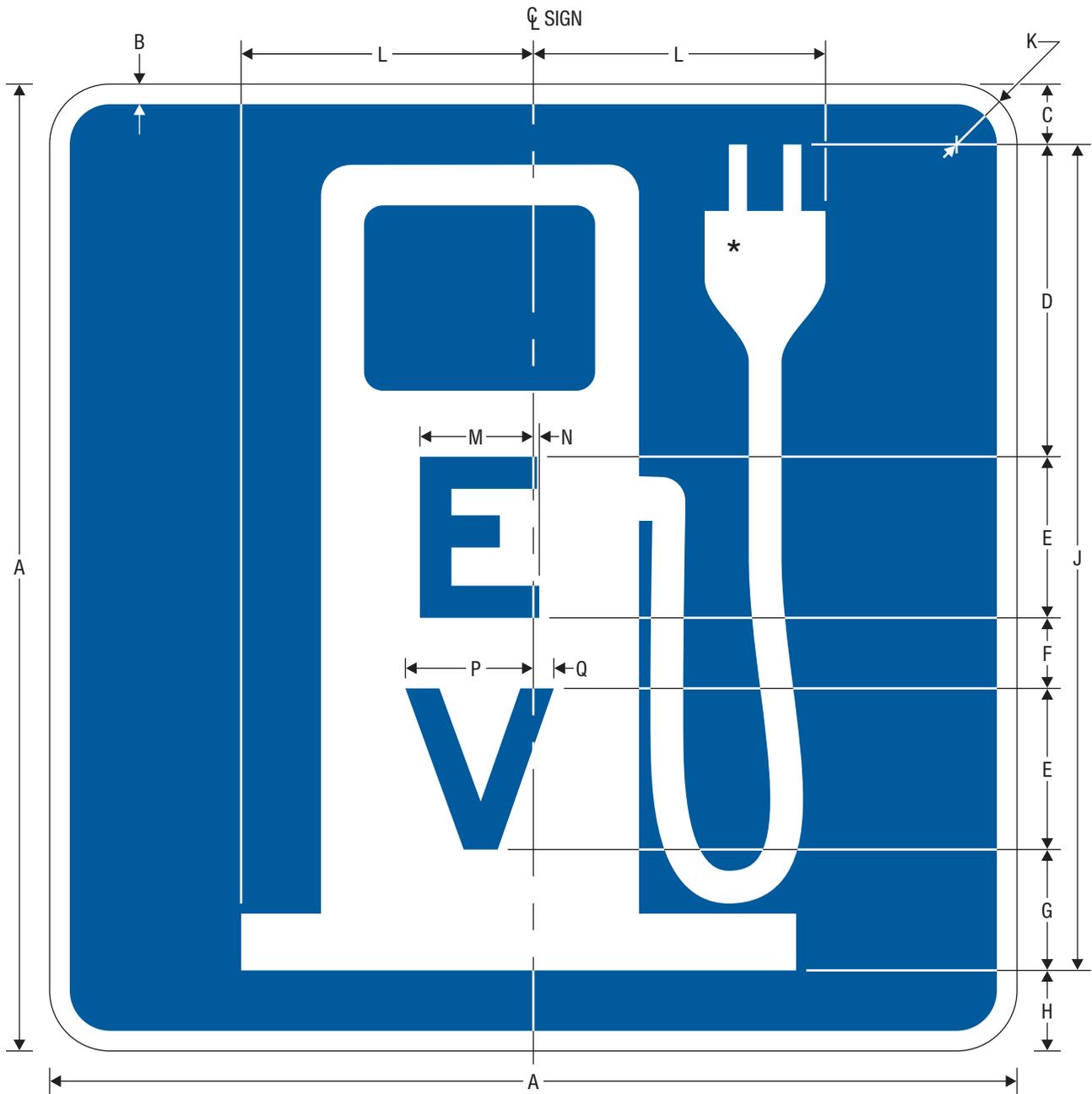
LOWER SECTION

COLORS: LEGEND, BORDER — GREEN (RETROREFLECTIVE)  
 BACKGROUND — WHITE (RETROREFLECTIVE)

\* Reduce character spacing 50%.

\*\* Optically space numerals.

\*\*\* Type D Arrow.



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

	A	B	C	D	E	F	G	H	J	K	L	M
<b>C</b>	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)