



Roadway Signs II

Course Number: CE-03-913

PDH: 3

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Course Author: Greg Taylor

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This document is the course text. You may review this material at your leisure before or after you purchase the course.

After the course has been purchased, review the technical material and then complete the quiz at your convenience.

A Certificate of Completion is available once you pass the exam (70% or greater).

If a passing grade is not obtained, you may take the quiz as many times as necessary until a passing grade is obtained).

If you have any questions or technical difficulties, please call (508) 298-4787 or email us at admin@PDH Pro.com.





INTRODUCTION

Traffic signs are typically used for conveying laws and regulations, traffic and roadway conditions, and guidance and other information. These critical tools provide important information for safe travel on any U.S. roadway system.

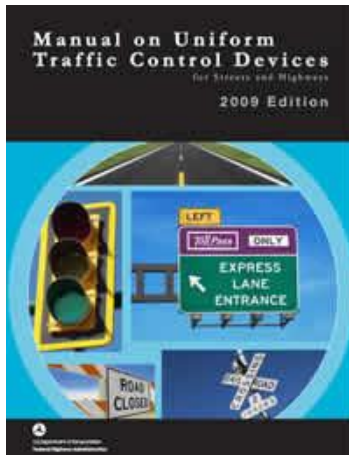
Traffic signs are not a cure for all traffic problems. Road users process different types of visual and non-visual information differently: speed, roadway conditions, traffic, legal enforcement, noise levels, etc. Also, traffic signs serve as reminders of important information, so road users do not have to memorize everything.

The goal is to provide drivers with relevant information when they need it - resulting in safer, more efficient roadways with reduced liability risks. However, poor sign management can greatly reduce safety, contribute to roadway incidents, and increase liability exposure.

This course is the second of two in this series that discusses how to effectively use signs to guide roadway traffic, and thereby reduce your liability exposure. This volume covers curve warning signs through emergency management signs. The contents of this course are intended to serve as guidance and not as an absolute standard or rule. Its purpose is to help you to use the **Manual on Uniform Traffic Control Devices (MUTCD) – Part 2** more effectively and not replace it. Should there be any discrepancies between the contents of this course and the MUTCD - always follow the MUTCD.

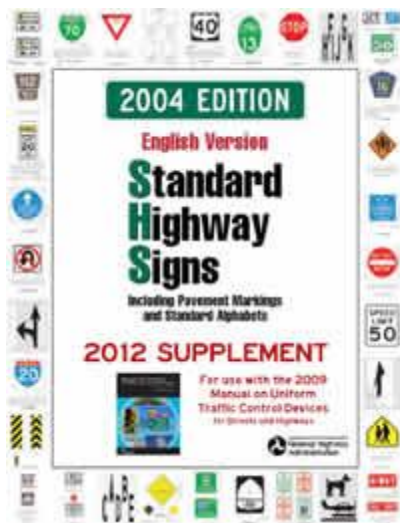
Upon course completion, you should be familiar with the general design guidelines for traffic signs. The course objective is to give engineers and designers an in-depth look at the principles to be considered when selecting and designing for traffic control.

For this course, the *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) 2009 Edition* will serve as a reference for the fundamental design principles of traffic signs. The MUTCD is recognized as the **national standard** for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel. Any traffic control device design or application contained within it is considered to be in the public domain and available for use.



<http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf>

The *Standard Highway Signs and Markings* book contains detailed specifications for all adopted standard signs. All traffic control devices have to be similar to or mirror images of those shown in this manual. Any symbols or colors cannot be modified unless otherwise stated.



http://mutcd.fhwa.dot.gov/SHSe/shs_2004_2012_sup.pdf

CURVES

Curves are the second most dangerous locations for serious roadway crashes which result in injuries and deaths. These incidents are generally due to lane departures, head-on incidents for curves to the right, and run-off-road crashes for curves to the left. Proper signing can aid in guiding motorists through curves without leaving their lane.

Curve warning signs fall into three main categories:

curve warning signs

curve delineation signs (chevrons and arrows)

combination curve/intersection signs.



Curve warning sign usage depends on the roadway geometry of the first curve, the advisory speed of the sharpest corner, and whether it is a single curve or multiple curves.

Alignment warning signs may be placed a maximum distance of 100 feet in advance of the curve, and a minimum distance of 100 feet from any other signs.

Table 2C-5. Horizontal Alignment Sign Selection

Type of Horizontal Alignment Sign	Difference Between Speed Limit and Advisory Speed				
	5 mph	10 mph	15 mph	20 mph	25 mph or more
Turn (W1-1), Curve (W1-2), Reverse Turn (W1-3), Reverse Curve (W1-4), Winding Road (W1-5), and Combination Horizontal Alignment/Intersection (W10-1) (see Section 2C.07 to determine which sign to use)	Recommended	Required	Required	Required	Required
Advisory Speed Plaque (W13-1P)	Recommended	Required	Required	Required	Required
Chevrons (W1-8) and/or One Direction Large Arrow (W1-6)	Optional	Recommended	Required	Required	Required
Exit Speed (W13-2) and Ramp Speed (W13-3) on exit ramp	Optional	Optional	Recommended	Required	Required

W1-1 Turn signs are used for curves with advisory speeds of 30 mph or less. For curves with advisory speeds greater than 30 mph, W1-2 Curve signs are used. The proper sign to use is subject to engineering judgment that takes into account the roadway geometry, traffic volume, road type, and other factors.

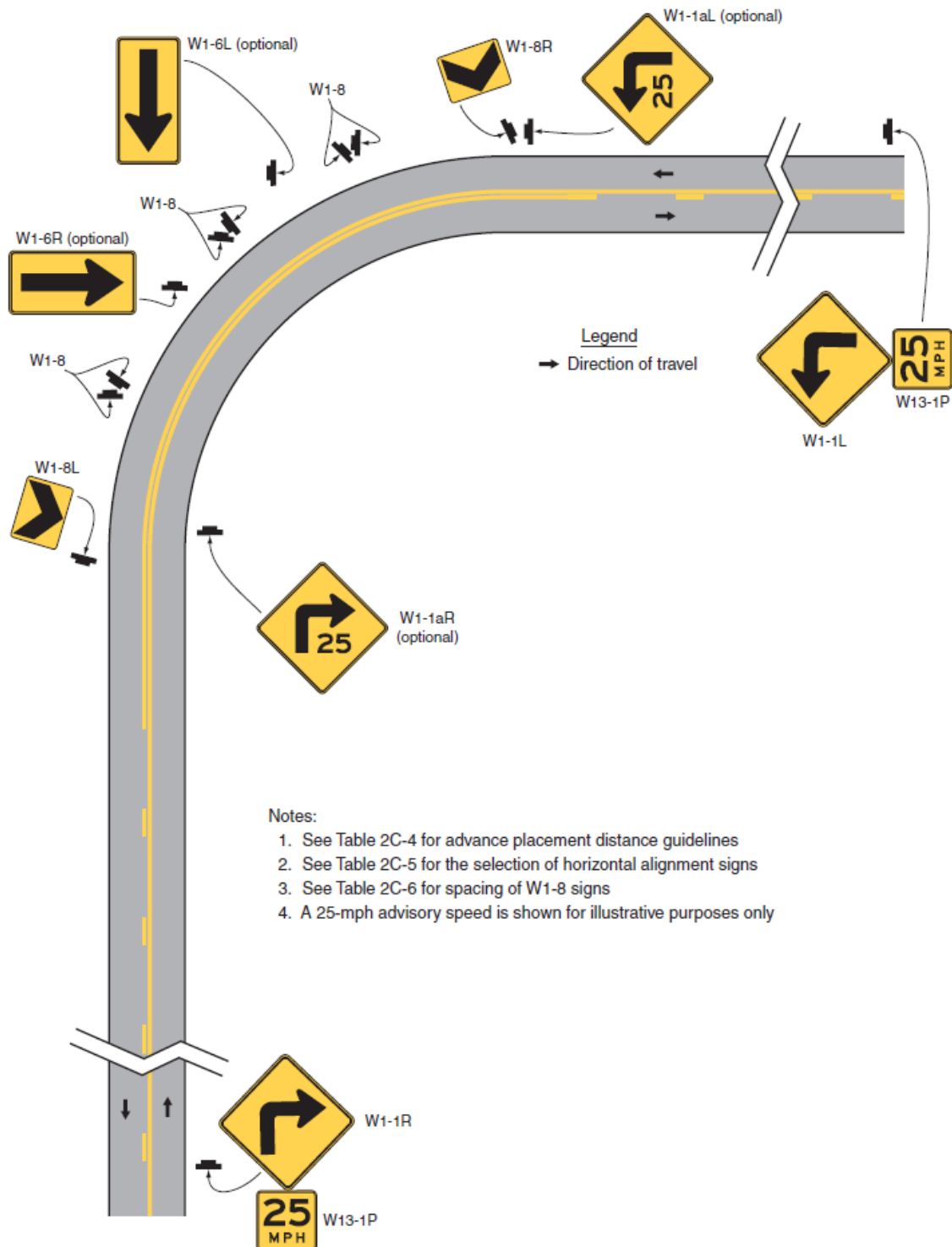


W1-1
TURN
≤ 30 mph



W1-2
CURVE
> 30 mph

Figure 2C-2. Example of Warning Signs for a Turn





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the technical materials.