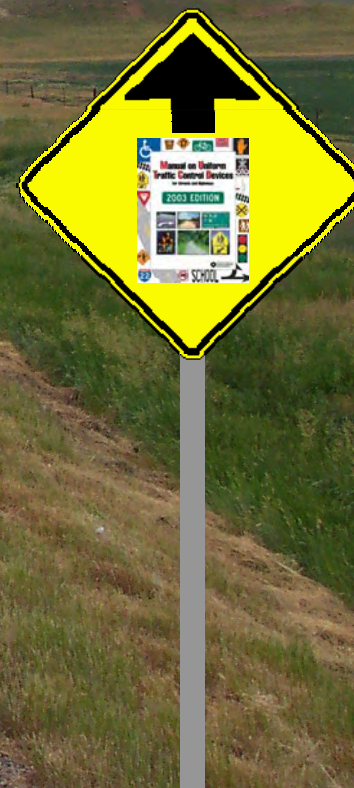




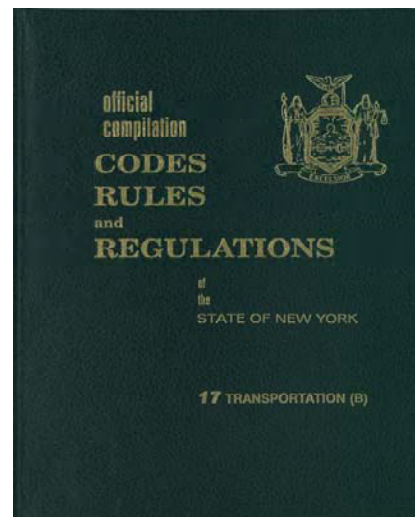
A NEW ERA:
New York Introduces
the
National MUTCD & NYS Supplement



MANUAL CHANGES

17 NYCRR Chapter V (“NYS MUTCD”)

Previous Guidance

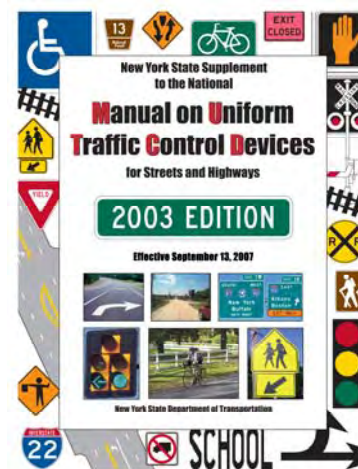
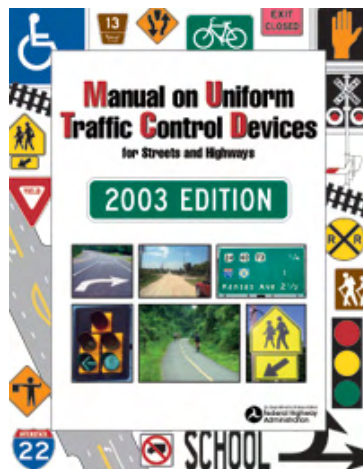


National MUTCD

NYS Supplement



Guidance as of
September 13, 2007



NATIONAL MUTCD & SUPPLEMENT CITATIONS

Long Forms

National Manual on Uniform Traffic Control Devices for Streets and Highways 2003 Edition

New York State Supplement to the National Manual on Uniform Traffic Control Devices for Streets and Highways – 2003 Edition

Short Forms

National MUTCD

New York State Supplement or NYS Supplement

FINDING NATIONAL MUTCD & SUPPLEMENT

ONLINE

National MUTCD - <http://mutcd.fhwa.dot.gov/>

NYS Supplement -

<https://www.nysdot.gov/portal/page/portal/divisions/operating/oom/transportation-systems/traffic-operations-section/mutcd>


HARD COPY

National MUTCD - Purchase from ATSSA, ITE, or AASHTO





NYS Supplement – Purchase from West Group (1-800-344-5008 or <http://west.thomson.com/> - refer to document as “Transportation Title 17B”)

NYSDOT MUTCD WEBSITE (INTERNET) - *Traffic*



The following documents are available for downloading:

- › National MUTCD (2003 Edition) 
- › MUTCD Presentation 

New York State Supplement

- › New York State Supplement - Full Version (Adopted Regulation) 
- › New York State Supplement - Part 1-10 (Adopted Regulation) 
- › New York State Supplement - Appendix (Adopted Regulation) 
- › Differences Between Draft Regulation and Adopted Regulation 

New York State Supplement - Revision #1

- › New York State Supplement - Revision #1 (Proposed Regulation) 
- › List of Changes in Proposed Regulation 

Helpful Tools

- › List of Significant Changes Due to Adoption of National MUTCD + Supplement 
- › Sign Designation Conversion Tables 
- › New York State Traffic Control Statutory Mandates 
- › New York State Statutes Relating to Traffic Control 
- › Frequently Asked Questions 

NYS DOT MUTCD WEBSITE – *List of Major Changes*

https://www.nysdot.gov/portal/page/portal/divisions/operating/oom/transportation-systems/reposi - Microsoft Internet Explorer

File Edit View Insert Format Tools Data PDF Create! Go To Favorites Help

Back Forward Stop Home Search Favorites

Address https://www.nysdot.gov/portal/page/portal/divisions/operating/oom/transportation-systems/repository/Rmajorchanges-web.xls

	A	B	C	D	E	F
1						
2		Notes: 1. This list does not contain every difference that exists between the current State MUTCD & the National MUTCD. 2. The types of changes are: M=Mandate, G=Guidance, O=Option. 3. The impact of each change refers to the likelihood that the change will impose a fiscal/resource burden on affected highway agencies. The impact types are characterized as either None (no burden), Positive (no burden + new positive option), or Negative (Major, Medium, Minor).				
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13		National MUTCD Section	Significant Changes Due to Adoption of National MUTCD & NYS Supplement	TYPE	Impact	
14		2A.06	Internet addresses cannot be used on signs.	M	None	
15		2A.06	Recommends Phone numbers with more than 4 characters not be shown on signs.	G	None	
16		2A.08	Allows LEDs to be used within the face and border of signs.	O	Positive	
17		2A.18	Minimum height for signs on freeways/expressways is 7 ft. (State MUTCD currently requires 6 ft.)	M	Major	
18		2A.18	Minimum height for overhead signs is 17 ft. (State MUTCD currently requires 15 ft.)	M	Major	
19		2A.21	Allows retroreflective material on sign posts.	O	Positive	
20		2B.04	R1-4 or R1-3 SHALL be used at all-way stop. (State MUTCD only says should.)	M	Minor	
21		2B.06/2B.10	DO NOT ENTER sign is allowed to be placed back-to-back with STOP & YIELD signs.	O	Positive	
22		2B.09	YIELD sign shall be used at the entrance to a roundabout.	M	Minor	
23		2B.10	YIELD signs shall be mounted on both sides of a multilane approach to roundabout when a splitter island exists on left side.	M	Minor	
24		2B.10	Recommends not mounting signs back-to-back with YIELD signs.	G	None	
25		2B.10	Recommends YIELD sign be installed after the crossing at roundabouts.	G	None	
26		2B.11	Requires use of YIELD HERE TO PEDS (R1-5) sign with unsignalized, marked, midblock crossings.	M	Minor	
27		2B.12	Changes design of In-Street Pedestrian Crossing sign.	M	Medium	
28		2B.13	Recommends that non-statutory speed limits be reviewed every five years on roadways that have undergone significant changes.	G	Medium	
29		2B.13	Allows installation of CMS that shows driver speed in conjunction with speed limit sign.	O	Positive	
30		2B.17	R2-6 FINES HIGHER sign design is different than State version.	M	Minor	
31		2B.19	Allows use of NO U-TURN/NO LEFT TURN (R3-18) sign.	O	Positive	
32		2B.26	Requires CMS used as regulatory signs to use similar letters and format.	M	Medium	
33		2B.26	Establishes requirements and guidance for preferential only lane signing.	M/G	Medium	
34		2B.37	Recommends that median widths be measured at intersection itself.	G	Minor	
35		Fig. 2B-8	National sizes for R4-9 STAY IN LANE smaller than State sizes.	G	None	
36		2B.36	National sizes for R5-2 NO TRUCKS smaller than State sizes.	G	None	
37		2B.36	National sizes for R5-6 NO BICYCLES smaller than State sizes.	G	None	
38		2B.37	National R6-1 ONE WAY signs for multilane conventional highways/expressways/parkways larger than State.	G	Medium	
39		2B.37	National R6-2 ONE WAY signs larger than State sizes.	G	Medium	
40		2B.37	Different posting locations for ONE WAY signs.	M	Major	
41		2B.38	National R6-3 DIVIDED HIGHWAY signs larger than State sizes.	G	Medium	
42		2B.40	National R7-8a VAN ACCESSIBLE plaque larger than State size.	G	Medium	
43		2B.40	R7-8b VAN ACCESSIBLE plaque different color than State.	M	Medium	

Sheet1

NYSDOT MUTCD WEBSITE – Sign Designation Conversion Tables

Sign Code Conversion Sheet - Regulatory Signs				
	NYS - Sign Code	NAT - Sign Code	Sign Name	MUTCD/Supplement Section
1				
2	R1-1	R1-1	STOP	2B.04
3	R1-2	R1-2	YIELD	2B.08
4	R1-3	R1-4	ALL WAY	2B.04
5	R2-1	R2-1	SPEED LIMIT	2B.13
6	R2-2	NYR2-2	STATE SPEED	2B.13
7	R2-3	NYR2-3	AREA SPEED	2B.13
8	R2-4	NYR2-4	CITY SPEED	2B.13
9	R2-5	NYR2-5	VILLAGE SPEED	2B.13
10	R2-6	NYR2-6	TOWN SPEED	2B.13
11	R2-7	NYR2-7	SCHOOL SPEED LIMIT ⚡ WHEN FLASHING	7B.11
12	R2-8	NYR2-8		7B.11
13	R2-9	R2-4	MIN SPEED LIMIT	2B.16
14	R2-10	W3-5	SPEED ZONE AHEAD	2C.30
15	R2-11	NYR2-11	END SPEED ZONE	2B.101
16	R2-12	W3-5	REDUCED SPEED AHEAD	2C.30
17	R3-1	R3-2	TURN PROHIBITION	2B.19
18	R3-2	R3-1		2B.19
19	R3-3	R3-4		2B.19
20	R3-4	R3-3		2B.19
21	R3-7	R10-11	NO TURN ON RED	2B.45
22	R3-10	R6-1L	ONE WAY (L)	2B.37
23	R3-11	R6-1R	ONE WAY (R)	2B.37
24	R3-12	R6-2L	ONE WAY (L)	2B.37
25	R3-13	R6-2R	ONE WAY (R)	2B.37
26	R3-14	NYR3-14	ALL TRAFFIC	2B.102
27	R3-15	R5-1	DO NOT ENTER	2B.34
28	R3-16	R5-1a	WRONG WAY	2B.35
29	R3-17	R6-3	DIVIDED HIGHWAY CROSSING	2B.38
30	R3-18	R6-3a		2B.38
31	R3-19	NYR3-19	LEFT TURN ONLY	2B.102
32	R3-20	NYR3-20	RIGHT TURN ONLY	2B.102
33	R3-21	NYR3-21	U-TURN ONLY	2B.21
34	R3-22	R3-5L	MANDATORY MOVEMENT LANE CONTROL	2B.21
35	R3-23	R3-5a		2B.21
36	R3-24	R3-5R	RIGHT TURN ONLY	2B.21
37	R3-25	R3-6L	OPTIONAL MOVEMENT LANE CONTROL	2B.22
38	R3-26	R3-6R		2B.22
39	R3-27	NYR3-27	LEFT/RIGHT	2B.22
40	R3-28	NYR3-28	LEFT/RIGHT STRAIGHT	2B.22
41	R3-31	R3-7L	LEFT LANE MUST TURN LEFT	2B.21
42	R3-32	R3-7R	RIGHT LANE MUST TURN RIGHT	2B.21
<div> Regulatory Warning Guide Supplement Signs Disallowed National MUTCD Signs </div>				
Ready				

NYS DOT MUTCD WEBSITE – Sign Designation Conversion Tables

Disallowed National MUTCD Signs

D5-1	REST AREA 1 MILE	R7-5	ONE HOUR PARKING
D5-1a	REST AREA 2 MILES	R7-6	NO PARKING LOADING ZONE
D5-1b	REST AREA NEXT RIGHT	R7-7	NO PARKING BUS STOP
D5-2	REST AREA EXIT ARROW	R7-107	NO PARKING BUS STOP
D5-2a	REST AREA EXIT ARROW	R7-107a	NO PARKING BUS STOP
D5-2b	REST AREA Gore Arrow	R7-201	TOW AWAY ZONE text version
D5-3	PARKING AREA 1 MILE	R7-203	EMERGENCY SNOW ROUTE
D5-3c	PARKING AREA Advance	R8-1	NO PARKING ON PAVEMENT
D5-4	PARKING AREA EXIT ARROW	R8-2	NO PARKING EXCEPT SHOULDER
D5-5	ROADSIDE TABLE ARROW (text)	R8-3	NO PARKING
D5-5a	ROADSIDE TABLE ARROW	R8-3c	ON PAVEMENT
D5-5b	ROADSIDE PARK ARROW	R8-3d	ON BRIDGE
D5-5c	PICNIC AREA ARROW	R8-6	NO STOPPING EXCEPT SHOULDER
D5-5d	ROADSIDE PARK Advance	R9-3	NO PED CROSSING text version
D5-5e	ROADSIDE TABLE Advance	R9-4	NO HITCHHIKING text version
D5-6	NEXT REST AREA XX MILES	R10-2	CROSS ON PED SIGNAL text
D6-1	SCENIC AREA ARROW	R10-6a	STOP HERE ON RED curved arrow
D6-2	SCENIC OVERLOOK 2 MILES	R10-7	DO NOT BLOCK INTERSECTION
D6-3	SCENIC AREA ARROW	R10-11a	NO TURN ON RED text version
D9-4	Litter Container	R10-11b	NO TURN ON RED different shape
D9-13a	HOSPITAL plaque	R10-17a	RIGHT ON RED ARROW AFTER STOP
D9-13b	AMBULANCE STATION plaque	R10-20a	Days/Times plaque
D9-13c	EMERGENCY MEDICAL CARE plaque	RM-230	24-Hour pharmacy symbol
D9-14	POLICE panel	S4-1	Times plaque
D9-18a	General Service Sign text version	S4-2	WHEN CHILDREN ARE PRESENT
D9-18e	Advance General Service text version	S4-4	WHEN FLASHING
D9-20	24-Hour pharmacy symbol	S4-5a	SCHOOL ZONE AHEAD text version
D9-20a	24-HOUR Panel	S4-6	Days plaque
D12-3	CB Monitoring	S5-1	School speed limit
E1-3	Exit number plaque	W3-1a	STOP AHEAD text version
E1-5	Exit number plaque	W3-2a	YIELD AHEAD text version
E1-5a	Exit number plaque	W3-3a	SIGNAL AHEAD text version
E5-2	Exit number plaque	W3-5a	Speed Reduction text version
I-2	STATE LINE	W6-1a	DIVIDED HIGHWAY text version
R1-3	4-WAY plaque	W6-1b	DIVIDED ROAD text version
R1-5a	YIELD HERE TO PED text version	W6-2a	DIVIDED HIGHWAY ENDS text version
R1-6a	STOP FOR PED in-roadway	W6-2b	DIVIDED ROAD ENDS text version
R2-2	Truck speed limit	W7-1a	HILL text version
R2-3	Night speed limit	W7-1b	HILL with grade incorporated
R4-7a	KEEP RIGHT text version	W8-6	TRUCK CROSSING text version
R4-7b	KEEP RIGHT text with angle arrow	W9-2	LANE ENDS MERGE text version
R5-2a	NO TRUCKS text version	W12-2p	Low clearance

Signs Given Longer Compliance Times for Removal

State	National	Sign Description	Date
R3-7	R10-11a	NO TURN ON RED text version	09/13/17
R4-5	R4-7a	KEEP RIGHT text version	09/13/17
P3-8	R7-201	TOW AWAY ZONE text version	09/13/17
W2-15	W3-1a	STOP AHEAD text version	09/13/15
W2-16	W3-2a	YIELD AHEAD text version	09/13/15

COMPLIANCE – *General*

**Section 1680(c) of the New York State Vehicle and Traffic Law
(paraphrased for clarity):**

No state or local authority shall hereafter install any traffic control device that does not conform to the current manual and specifications, except that devices that are on order or on hand and serviceable or operable may be installed and used until the phase-in compliance date specified in the MUTCD.

No state or local authority shall continue to use any traffic control device that does not conform to the current manual and specifications beyond the phase-in compliance date specified in the MUTCD.

The Introduction of the National MUTCD contains the list of phase-in compliance dates for certain traffic control devices; the dates provide as much as 15 years for compliance. Not all devices in the National MUTCD are included on this list.

COMPLIANCE – *General*

Noncompliant devices on existing highways and bikeways as of September 13, 2007 are required to be brought into compliance with the National MUTCD and the New York State Supplement as part of a “systematic upgrade of substandard traffic control devices.”

Where a compliance date is provided, the plan is expected to result in the completion of the upgrade by that date.

Where no compliance date is provided, the plan is expected to result in the completion of the upgrade by the end of the serviceable life of the device.

COMPLIANCE – *Obsolete Devices*

If You	Then
Have an obsolete device with a compliance date that's in the future...	You can continue using existing signs & signs on order until the compliance date, when all such signs must be replaced, regardless of service life.
Have an obsolete device with a compliance date that's in the past...	You cannot continue installing these signs, even if they're in stock or on order, and existing signs must be replaced as part of a systematic upgrade.
Have an obsolete device without a compliance date...	You can only continue installing these signs if they're in stock or on order, but they can only remain in use up to the end of their useful lives.

COMPLIANCE – *New Devices*

If You	Then
Are required to install a new device with a compliance date that's in the future...	You must install the device on or before the compliance date.
Are required to install a new device with a compliance date that's in the past...	You must install the device as part of a systematic upgrade.
Are required to install a new device with no compliance date...	

COMPLIANCE – *Dates in the Past*

Section 2B.04 STOP Sign (R1-1)—4-WAY plaque requirement—January 17, 2004.

Section 2B.27 Preferential Only Lanes for High-Occupancy Vehicles (HOVs)—new section in Millennium Edition—January 17, 2007.

Section 3B.01 Yellow Centerline Pavement Markings and Warrants—new section in Millennium Edition—January 3, 2003.

Section 3B.07 Warrants for Use of Edge Lines—new section in Millennium Edition—January 3, 2003.

Section 4E.06 Accessible Pedestrian Signals—new section in Millennium Edition—January 17, 2005.

Section 4E.07 Countdown Pedestrian Signals—new section—3 years from the effective date of the Final Rule for the 2003 MUTCD for operational requirements of countdown pedestrian signals.

Section 4E.09 Accessible Pedestrian Signal Detectors—new section in Millennium Edition—January 17, 2005.

Section 6D.03 Worker Safety Considerations—high-visibility apparel requirements—3 years from the effective date of the Final Rule for the 2003 MUTCD.

Section 6E.02 High-Visibility Safety Apparel—high-visibility apparel requirements for flaggers—3 years from the effective date of the Final Rule for the 2003 MUTCD.

Section 6F.03 Sign Placement—crashworthiness of sign supports—January 17, 2005.

Section 6F.58 Channelizing Devices—crashworthiness—January 17, 2005.

Section 6F.63 Type I, II, or III Barricades—crashworthiness—January 17, 2005.

Section 6F.66 Longitudinal Channelizing Barricades—crashworthiness—January 17, 2005.

Section 6F.82 Crash Cushions—crashworthiness—January 17, 2005.

COMPLIANCE – *NYSDOT*

NYSDOT

All projects to be let are to comply with the National MUTCD and the New York State Supplement.

Projects let before September 6, 2007 were to comply with the National MUTCD and the New York State Supplement to the extent practicable.

For existing, noncompliant devices, Regions should develop operational measures to identify such devices, and upgrade them when appropriate given available resources (e.g., when the next contract or maintenance work is done on that highway).

COMPLIANCE – *NYSDOT*

NYSDOT

In any instance where a noncompliant device poses a safety hazard, the hazard must be promptly addressed. Regions should use their discretion to ascertain their own specific situations.

Main Office Traffic suggests the following list of changes to which the Regions may want to pay particular attention:

Section 2B.04	Use of ALL WAY plaque with STOP signs.
Section 2C.05	Placement of warning signs.
Section 2C.39	Use of warning sign for yellow signal trap.
Section 3B.08	Color of pavement marking extension lines.
Section 4A.02	Length of Pedestrian Clearance time.
Section 4J.03	Size of lane-use control signal faces (18" instead of 12").

COMPLIANCE – *Non-NYSDOT*

Counties and municipalities may wish to consider adopting guidance similar to NYSDOT for local projects in order to minimize noncompliance.

HOW TO USE MANUALS

- 1. Determine relevant section of National MUTCD.**
- 2. Before using National MUTCD section, check NYS Supplement to see if companion section exists.**
 - a. If NYS Supplement section supersedes National MUTCD section, just use NYS Supplement for that section.**
 - b. If NYS Supplement companion section only modifies National MUTCD, use National MUTCD information, with insertions/deletions as specified in NYS Supplement.**
- 3. Check NYS Supplement three-digit sections to see if the information you need has been added to a New York-specific section. (Can also check Sign Designation Conversion Tables for more information.)**

HOW TO USE MANUALS - *Examples*

Example 1:

You need to post a warning sign on a 55 mph highway for a left curve having an advisory speed of 35 mph.

1. You check the National MUTCD and find that Section 2C.06 contains the horizontal alignment sign you want.

Note: National MUTCD allows the use of a sign if judgment warrants, and recommends the use of the W1-2, with an Advisory Speed plaque optional.

2. You check the NYS Supplement, and find that Section 2C.06 exists, and supersedes the entire National MUTCD section; you only use the NYS Supplement in this case.

Note: NYS Supplement recommends the use of a sign under these conditions, and requires the sign to be the W1-2. It also requires the use of an Advisory Speed plaque.

3. You end up using a W1-2L Curve sign with a W13-1 Advisory Speed plaque.

HOW TO USE MANUALS - *Examples*

Example 2:

You need to post signs on a State highway regarding parking restrictions that are imposed on the highway during periods of heavy snowfall.

1. You check the National MUTCD, and find the availability of the R7-203 (EMERGENCY SNOW ROUTE) sign in Section 2B.40.
2. You check the NYS Supplement, and find that Section 2B.40 does exist, and contains the statement: “The R7-201 and R7-203 signs shall not be used in New York.”
3. You check the NYS Supplement further, and find that Section 2B.105 (“Snow Emergency Route Signs”) contains the sign (NYR7-11) you need. (If you knew that the existing sign is the R7-11, you could also check the Sign Designation Conversion Tables for the code conversion.)

DEVICE NOMENCLATURE CHANGES

Existing State MUTCD

Every sign has a unique designation.

National MUTCD + NYS Supplement

Some signs can be used in different orientations; a suffix is necessary to determine the orientation.



~~W2-7~~

NYW2-8L



~~W2-8~~

NYW2-8R



NYW2-8

SIGNS NEW TO NEW YORK

**WEIGH
STATION
1 MILE**

**WEIGH
STATION
NEXT RIGHT**

**ALL TRUCKS
COMMERCIAL
VEHICLES
NEXT RIGHT**

**WEIGH
STATION**



LEFT

EXIT 36

LEFT

EXITS 33E-W

LEFT

EXIT 27N

**Nassau
County**

**CITY OF
Buffalo**

**ESSEX
COUNTY**

**VILLAGE OF
WATERFORD**

WOODINVILLE

FOOD



SIGN SIZES

State MUTCD

Bikeways

Two-Lane Conventional Highways

Four-Lane Conventional Highways

Six-Lane Conventional Highways

Expressways & Parkways

Freeways

National MUTCD

Shared-Use Path

Conventional Road

Expressway

Freeway

Minimum (Low-Volume Roads)

Oversized (extra emphasis)

- Low-Volume Road:**
- outside of built-up areas of cities, towns & communities
 - traffic volume less than 400 AADT
 - not a freeway, expressway, interchange ramp, freeway service road or road on a designated State highway system
 - can be either paved or unpaved

SIGN MOUNTING HEIGHT

		State	National
Conventional	Rural	5'	5'
	Rural Secondary Sign	4'	4'
	Urban	7'	7'
	Urban Secondary Sign	6'	6'
Freeways/Expressways	Route Marker/Regulatory/Warning	6'	7'
	Secondary Route Marker/Regulatory/Warning	5'	6'
	Guide Sign (except Route Marker) > 30 ft. from road	5'	5'
	Guide Sign (except Route Marker) < 30 ft. from road	7'	7'
	Guide Sign (except Route Marker) with secondary sign	7'	8'
	Secondary Guide Sign (except Route Marker)	5'	5'
Overhead		15'	17'

**Warning Sign Locations
in
New York State**



WARNING SIGNS - Location

State MUTCD had three separate tables for the three warning sign conditions: Unexpected Maneuvers, Stops, Advisory Speeds.

National MUTCD provides distances for all three categories via one table – Table 2C-4.

*Table 2C-4. Guidelines for Advance Placement of Warning Signs
(English Units)*

Posted or 85th- Percentile Speed	Advance Placement Distance ¹								
	Condition A: Speed reduction and lane changing in heavy traffic ²	Condition B: Deceleration to the listed advisory speed (mph) for the condition ⁴							
		0 ³	10	20	30	40	50	60	70
20 mph	225 ft	N/A ⁵	N/A ⁵	—	—	—	—	—	—
25 mph	325 ft	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—	—	—
30 mph	450 ft	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—	—	—
35 mph	550 ft	N/A ⁵	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—	—
40 mph	650 ft	125 ft	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—	—
45 mph	750 ft	175 ft	125 ft	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—
50 mph	850 ft	250 ft	200 ft	150 ft	100 ft	N/A ⁵	—	—	—
55 mph	950 ft	325 ft	275 ft	225 ft	175 ft	100 ft	N/A ⁵	—	—
60 mph	1100 ft	400 ft	350 ft	300 ft	250 ft	175 ft	N/A ⁵	—	—
65 mph	1200 ft	475 ft	425 ft	400 ft	350 ft	275 ft	175 ft	N/A ⁵	—
70 mph	1250 ft	550 ft	525 ft	500 ft	425 ft	350 ft	250 ft	150 ft	—
75 mph	1350 ft	650 ft	625 ft	600 ft	525 ft	450 ft	350 ft	250 ft	100 ft

WARNING SIGNS - *Location*

The National MUTCD's distances for Condition A are much higher than the old State MUTCD distances.

Condition A (Unexpected Maneuver)		
85th Percentile Approach Speed	State MUTCD	National MUTCD
20	200	225
25	200	325
30	210	450
35	240	550
40	270	650
45	300	750
50	330	850
55	360	950
60	390	1100
65	420	1200
70	450	1250
75	N/A	1350

WARNING SIGNS - *Location*

The National MUTCD's distances for Condition B are much lower than the old State MUTCD distances.

Condition B (Stop)		
85th Percentile Approach Speed	State MUTCD	National MUTCD
20	200	N/A
25	260	N/A
30	355	N/A
35	450	N/A
40	545	125
45	640	175
50	735	250
55	830	325
60	920	400
65	1015	475
70	1110	550
75	N/A	650

Condition B (Advisory Speed = 20 mph)		
85th Percentile Approach Speed	State MUTCD	National MUTCD
20	200	N/A
25	200	N/A
30	200	N/A
35	240	N/A
40	350	N/A
45	460	N/A
50	570	150
55	680	225
60	790	300
65	900	400
70	1010	500
75	N/A	600

WARNING SIGNS - *Location*

The National MUTCD calculated the distances for the table by using the sight distances given in the 2001 AASHTO Policy, and subtracting the distances for which different types of signs are legible to motorists.

For Condition A, 250 ft. were subtracted from the AASHTO distances.

For Condition B, 175 ft. were subtracted from the AASHTO distances.

The assumption is made that a motorist begins to react to a sign before they actually reach the sign.

When you use a distance from Table 2C-4, it is assumed that the sign will be placed such that motorists can see the sign either 175 or 250 ft. in advance, depending on the sign type.

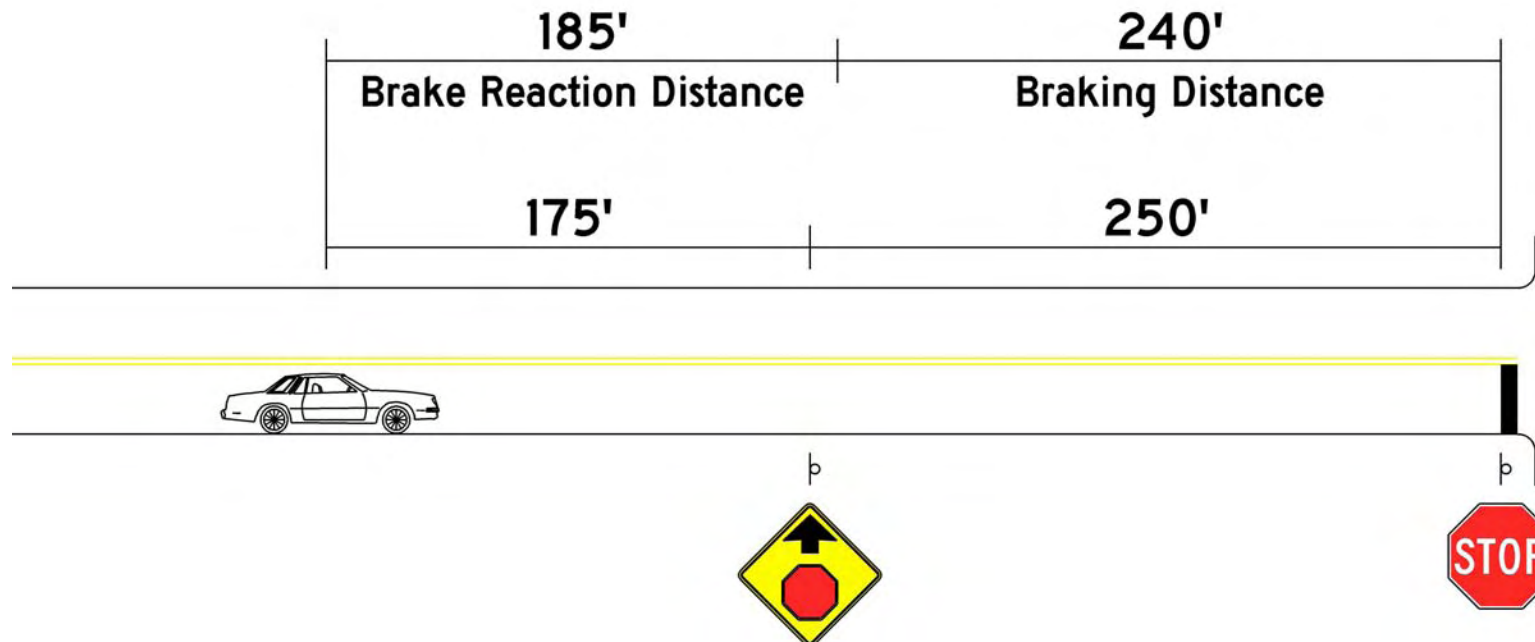
WARNING SIGNS - *Location*

National MUTCD Method - Example:

You want to place a STOP AHEAD sign on a highway with an 85th percentile approach speed of 50 mph.

Table 2C-4 tells you to place the sign at least 250' in advance of the STOP sign.

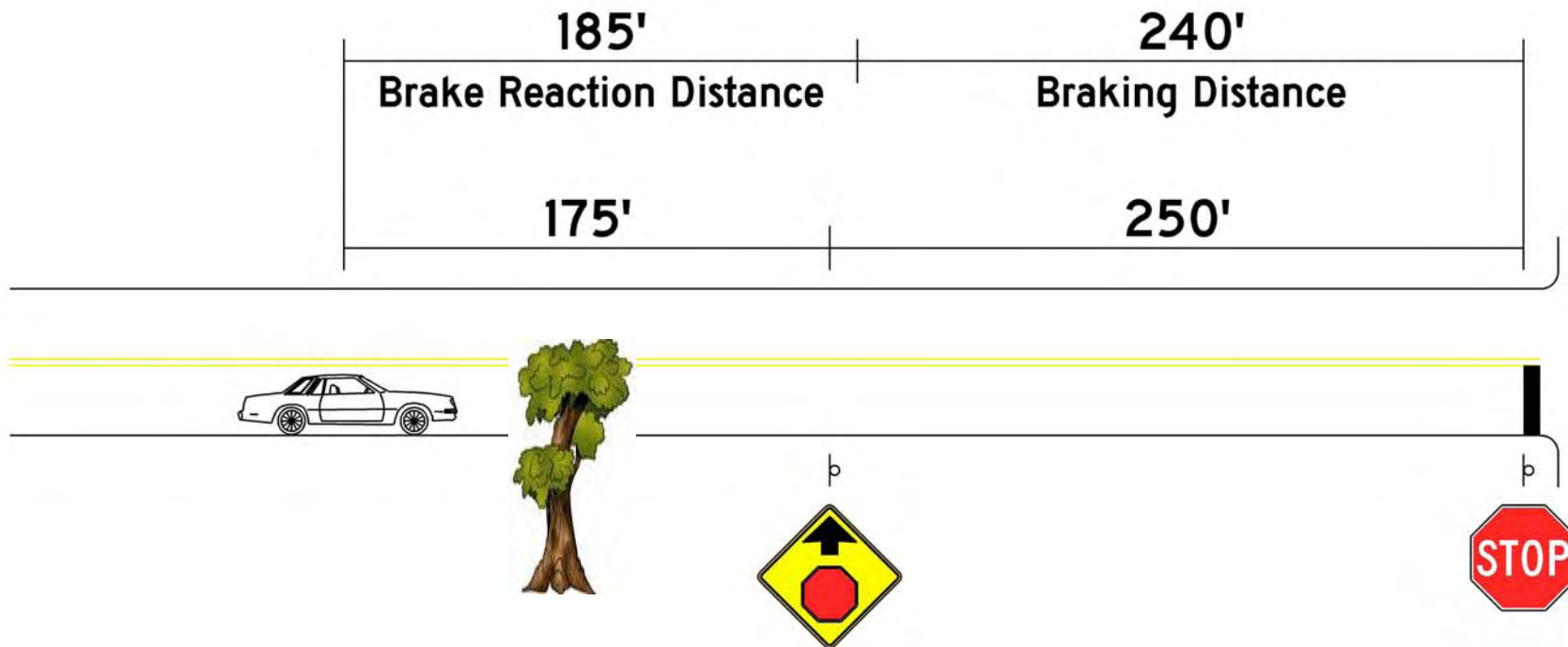
Table 2C-4 arrived at the distance of 250' by taking the AASHTO required sight distance of 425', and subtracting 175' of sign legibility distance.



WARNING SIGNS - *Location*

Concerns with National MUTCD Method:

What happens if an obstacle (temporary or permanent) blocks a driver's view of a warning sign?



WARNING SIGNS - *Location*

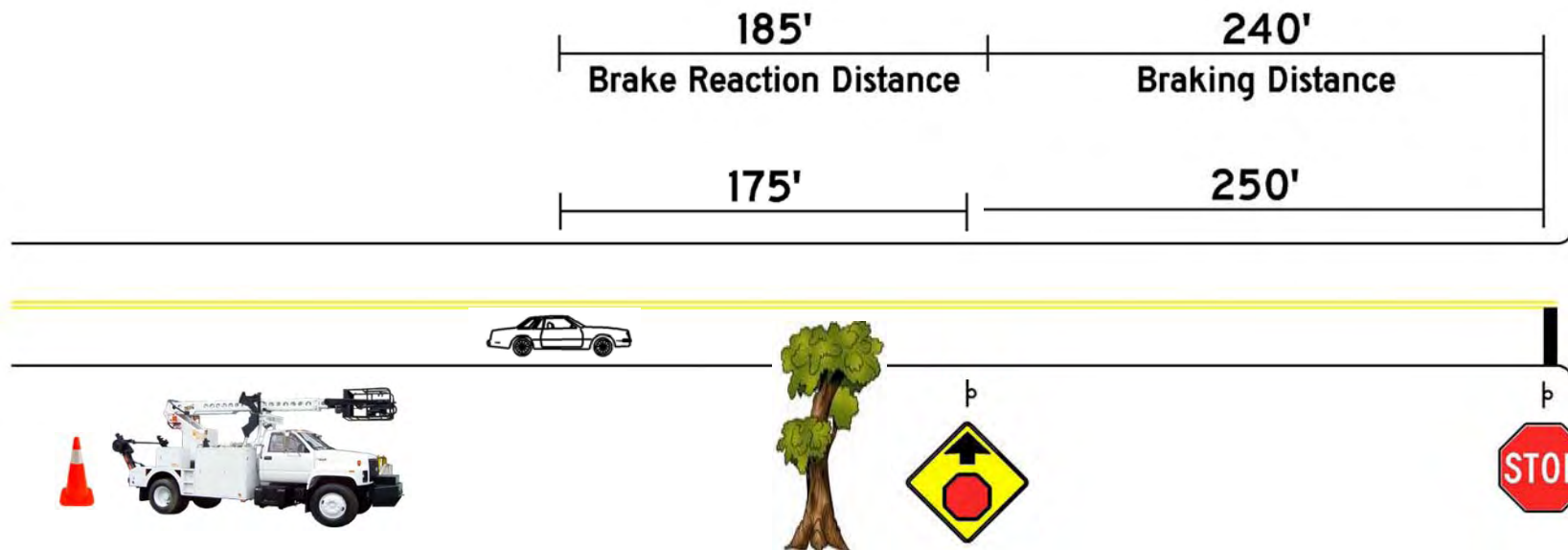
Concerns with National MUTCD Method:

What happens if an obstacle (temporary or permanent) blocks a driver's view of a warning sign?

In the case of a permanent obstacle, the sign needs to be moved back to the point at which motorists CAN see it 175 ft. in advance.

This distance will not be the same for all installations of the same type of sign.

The National MUTCD method does not account for temporary obstacles.



WARNING SIGNS - *Location*

Concerns with National MUTCD Method:

How can designers and field personnel easily identify warning sign locations?



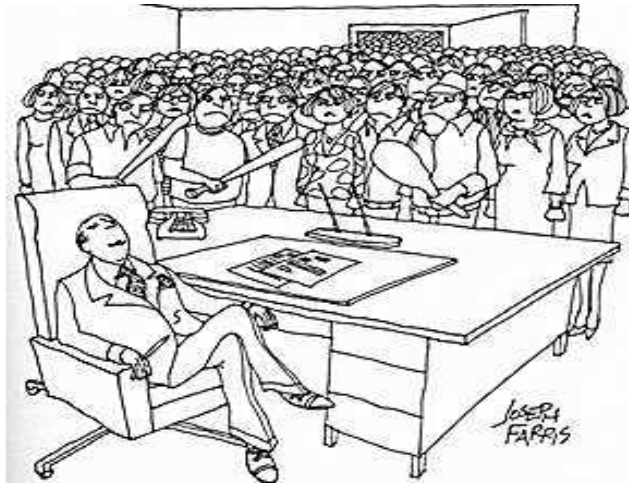
WARNING SIGNS - *Location*

Many comments on Table 2C-4 were received from both NYSDOT personnel and municipal officials. It was decided that the National MUTCD distances did not meet the needs of New York State, and that a better method was needed.

The decision was made to revert back to the original AASHTO distances. These distances are based on nationally-acceptance guidance, and are in conformance with the requirements of the National MUTCD.

A new table, Table NY2C-4, is in the NYS Supplement – Revision #1, and supersedes the National MUTCD Table 2C-4.

The distances are still much different than the old State MUTCD distances.



WARNING SIGNS - *Location*

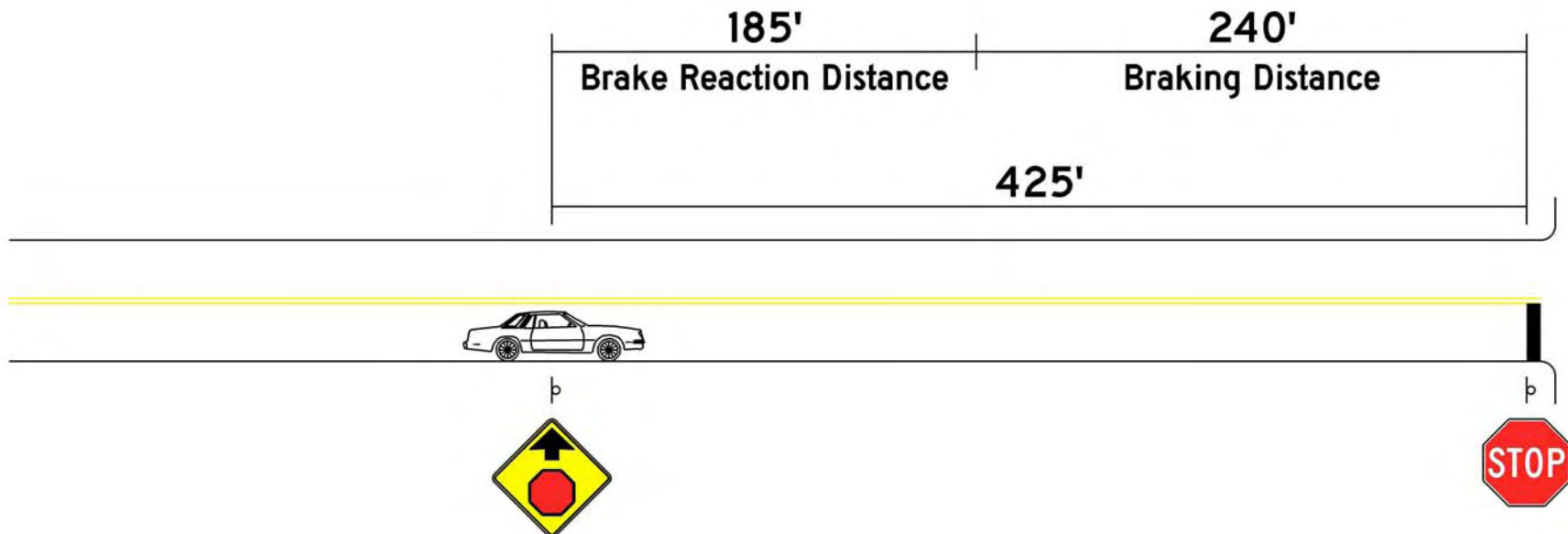
The distances in Table NY2C-4 assume that drivers do not begin to react to a warning sign until they actually reach the sign.

Advantages:

Uniformity of placement among similar signs.

Greater safety margin. (Any sign legibility in advance is extra distance to react.)

Easier for designers and field personnel to decide where to put signs.



WARNING SIGNS - Location

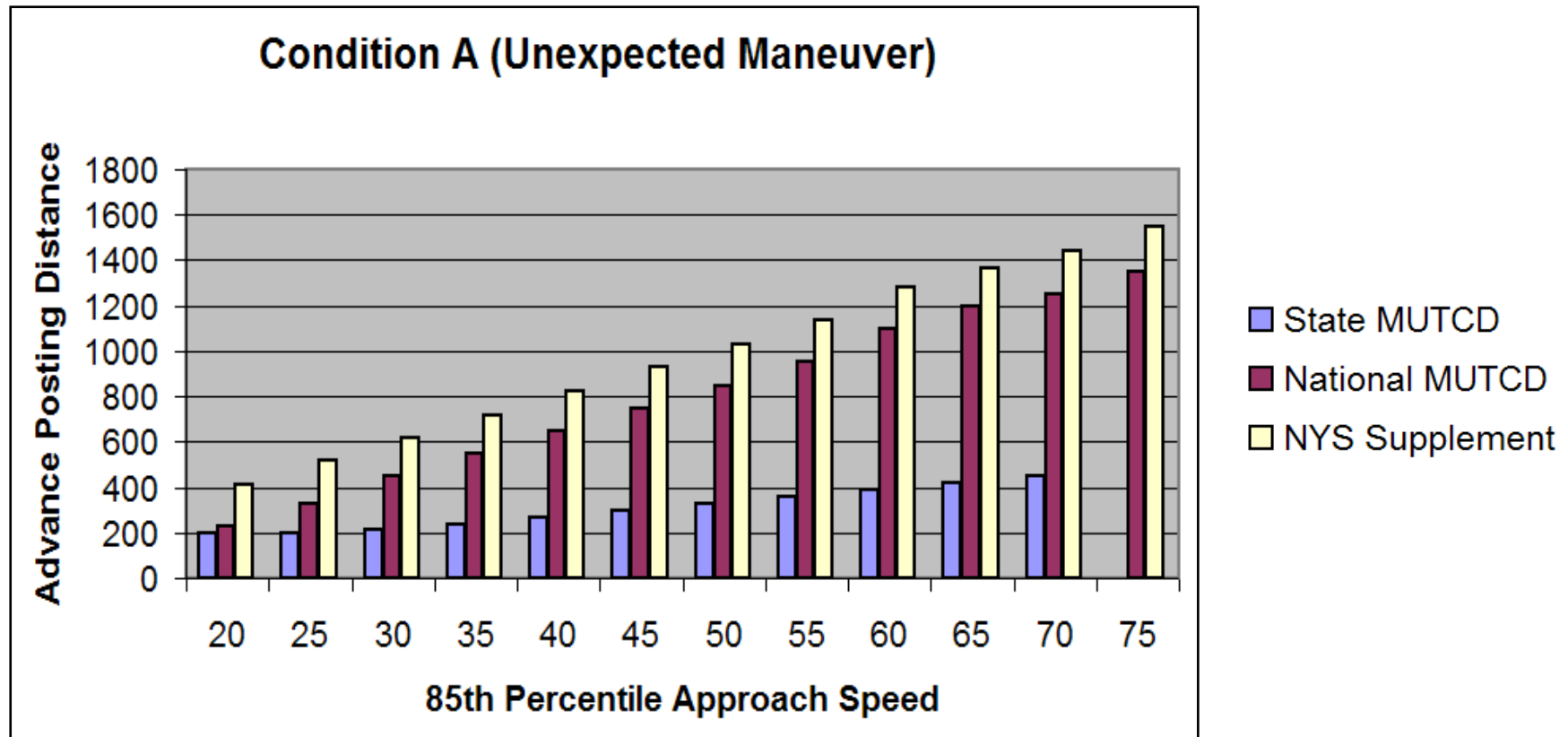
Table NY2C-4. Guidelines for Advance Placement of Warning Signs
(English Units)

Posted or 85 th - Percentile Speed (mph)	Advance Placement Distance (ft) ¹																
	Condition A: Speed reduction and lane changing in heavy traffic ²	Condition B: Deceleration to the listed advisory speed (mph) for the condition ⁴															
		0 ³	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
20	410	115	110	105	90	75	-	-	-	-	-	-	-	-	-	-	-
25	515	155	160	150	135	120	95	-	-	-	-	-	-	-	-	-	-
30	620	200	205	195	185	165	140	110	-	-	-	-	-	-	-	-	-
35	720	250	255	245	235	215	190	160	130	-	-	-	-	-	-	-	-
40	825	305	320	310	295	280	255	225	190	150	-	-	-	-	-	-	-
45	930	360	380	370	360	340	315	285	255	210	165	-	-	-	-	-	-
50	1030	425	455	450	435	415	390	360	330	285	240	185	-	-	-	-	-
55	1135	495	530	520	505	490	460	435	400	355	315	255	205	-	-	-	-
60	1280	570	605	595	585	565	540	510	475	435	390	335	280	220	-	-	-
65	1365	645	670	690	675	660	630	605	570	525	485	425	375	315	240	-	-
70	1445	730	785	775	765	745	720	690	660	615	570	515	460	400	325	260	-
75	1545	820	880	870	855	840	810	785	750	705	660	605	550	495	420	350	275

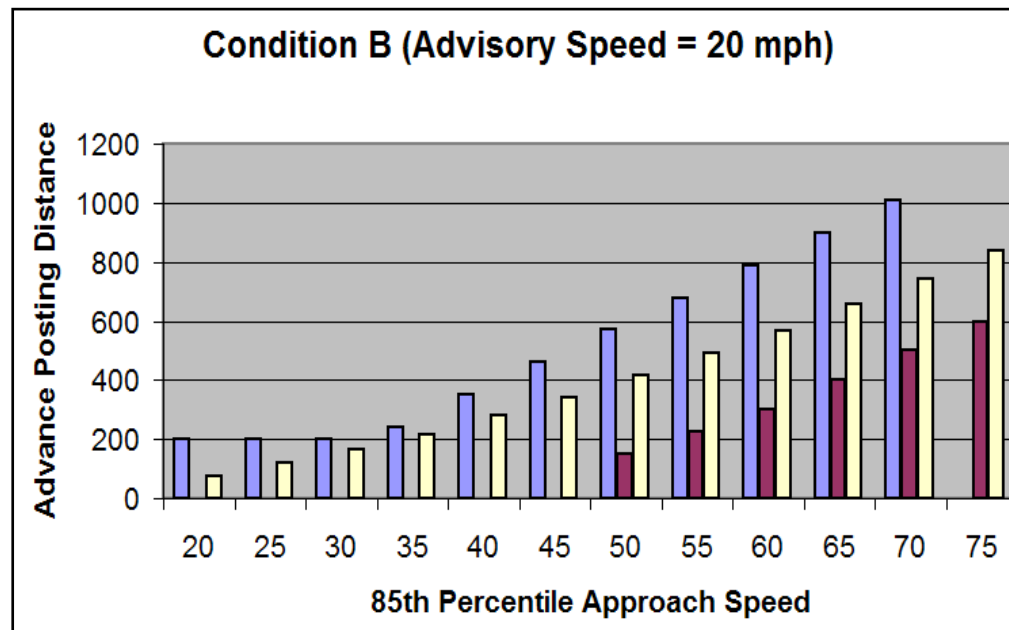
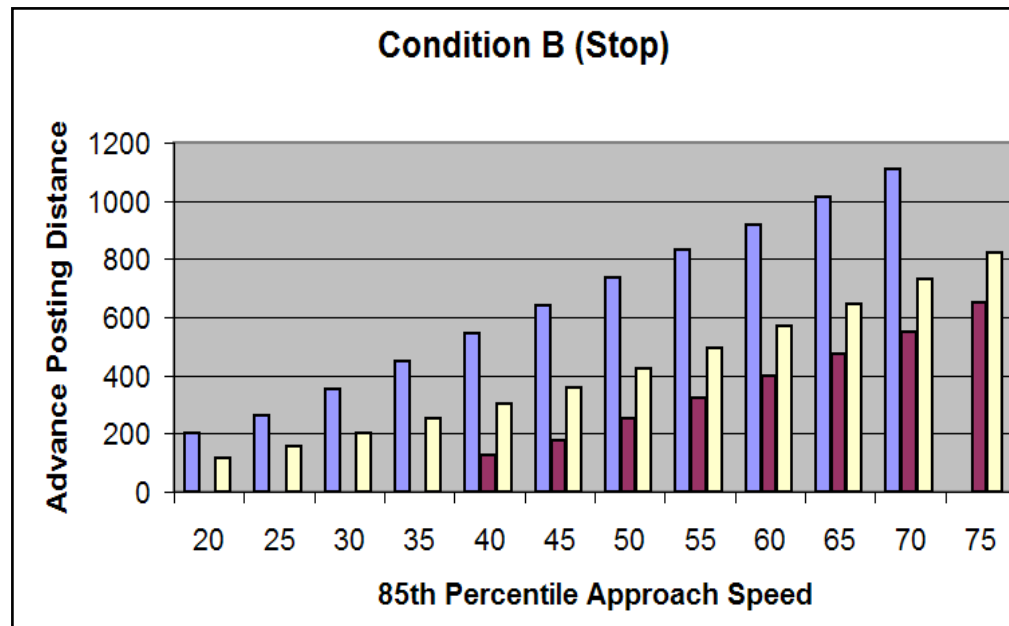
WARNING SIGNS - *Location*

NYS Supplement distances are higher than National MUTCD distances for all three conditions.

The Supplement distances are higher than the State MUTCD distances for Condition A, but lower for Condition Bs.



WARNING SIGNS - *Location*



- State MUTCD
- National MUTCD
- NYS Supplement

WARNING SIGNS – *Determining Advisory Speeds*

State MUTCD

Use a ball bank reading of 10 degrees.

National MUTCD

Use the 85th-percentile speed, a ball bank indicator reading of 16 degrees, or the speed determined by an engineering study.

Proposed NYS Supplement Revision #1

Use AASHTO's *A Policy on Geometric Design of Streets and Highways*, 2004, with side friction factors from Supplement, or use ball bank readings from Supplement.

SPEED (mph)	SIDE FRICTION FACTOR (degrees)
≤ 24	0.24
25 - 34	0.21
35 - 49	0.18
≥ 50	0.15

SPEED (mph)	BALL BANK READING (degrees)
≤ 24	16
25 - 34	14
35 - 49	12
≥ 50	10

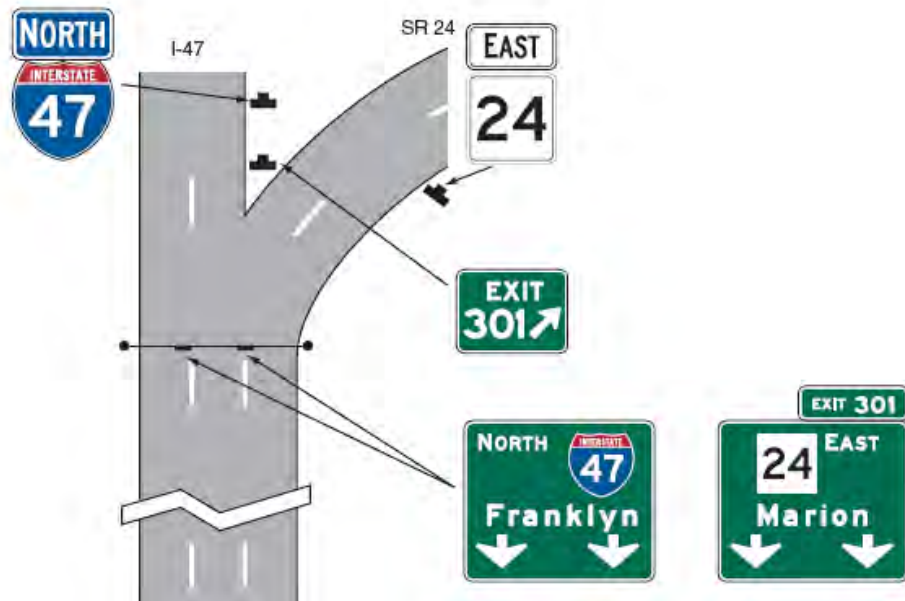
GUIDE SIGNS - *General*

Mandates 4" minimum text height for principal legend on guide signs on low volume or urban streets.

Mandates 6" minimum text height for principal legend on guide signs for other conventional highways.

Mandates 8" minimum text height for principal legend on guide signs for expressways & freeways.

Mandates that first letter of cardinal direction be 10% larger than the other letters on conventional highways; 20% larger on expressways & freeways when part of a larger guide sign.



GUIDE SIGNS – *Street Name Signs*

State MUTCD

Guidance to use 6"-D letters for conventional highways.

Guidance to use 4"-D letters for two-lane conventional highways with low approach speeds or where larger signs cannot fit.

No guidance provided on larger sizes for multilane conventional highways.

National MUTCD

On conventional highways, the lettering on ground-mounted Street Name signs should be at least 6".

On conventional highways with speed limits of 25 mph or less, 4" letters may be used.

On multilane streets with speed limits greater than 40 mph, the lettering on ground-mounted Street Name signs should be at least 8".

Proposed NYS Supplement Revision #1

4" letters may be used on local roads with speed limits of 30 mph or less.

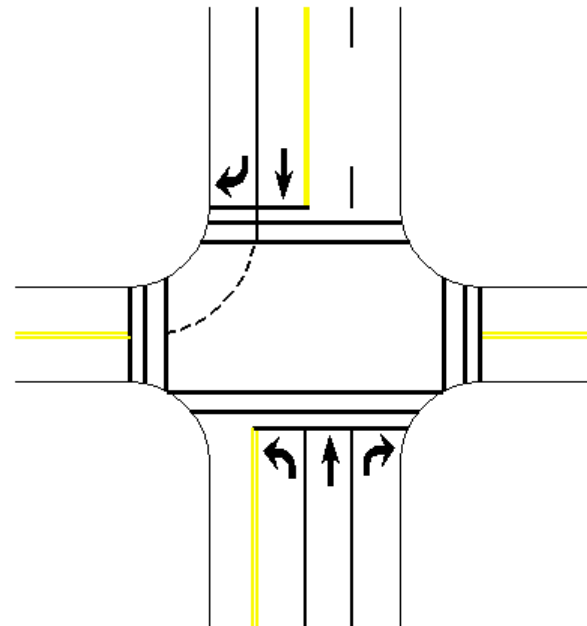
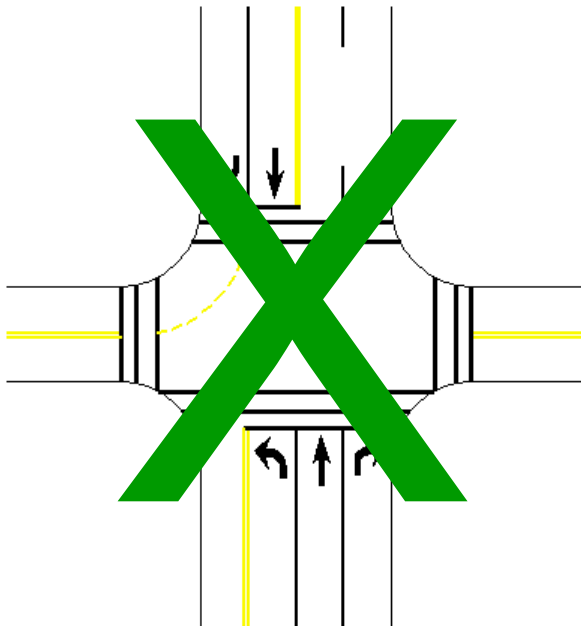
PAVEMENT MARKINGS – *Extension Lines*

State MUTCD

Connections of pavement markings through intersections should match the color of the downstream marking.

National MUTCD

Pavement markings into or continued through an intersection or interchange area shall be the same color and at least the same width as the line markings they extend.



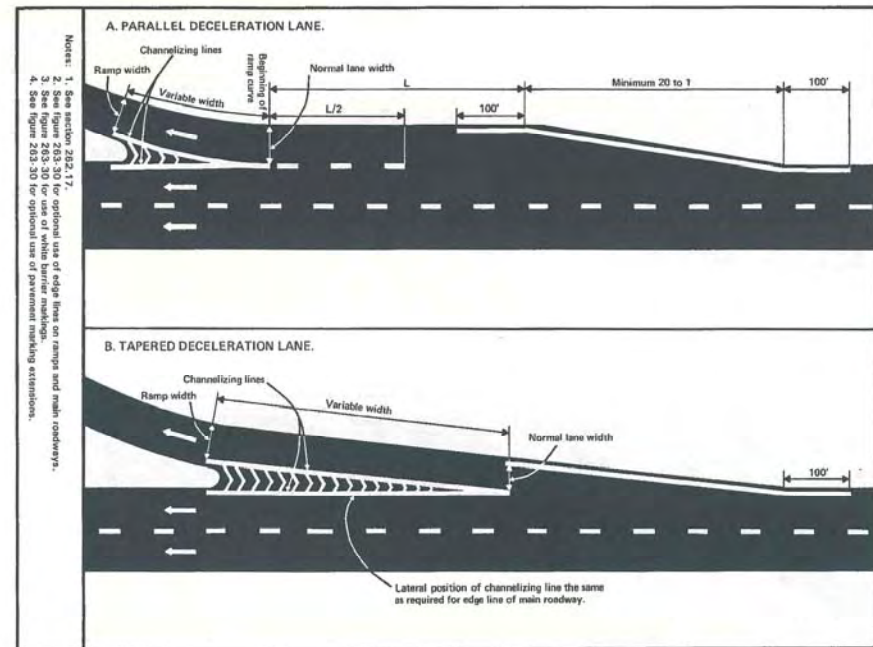
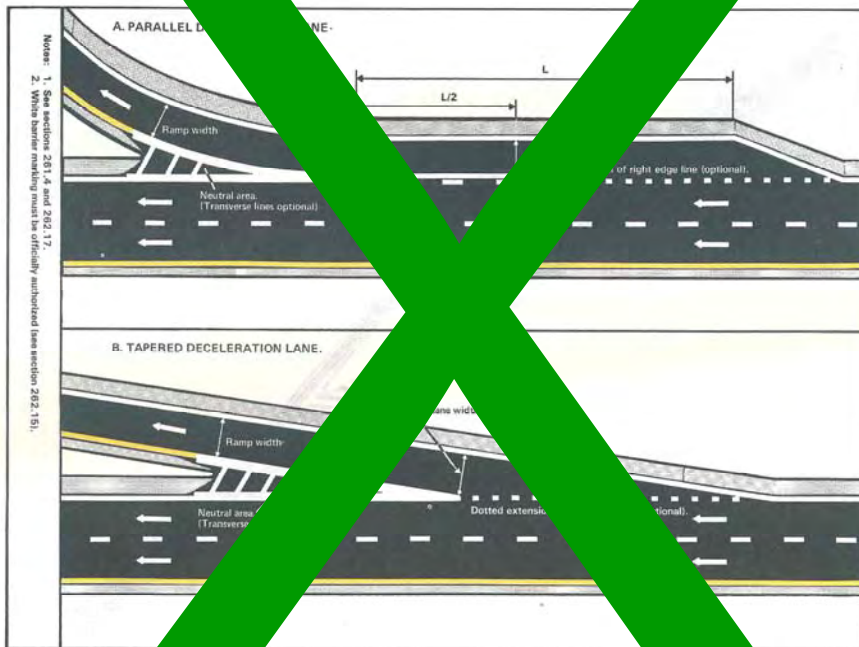
PAVEMENT MARKINGS – *Neutral Area Markings*

State MUTCD

Both diagonal and chevron markings are allowed in the neutral area.

National MUTCD

Only chevron markings may be used in the neutral area.



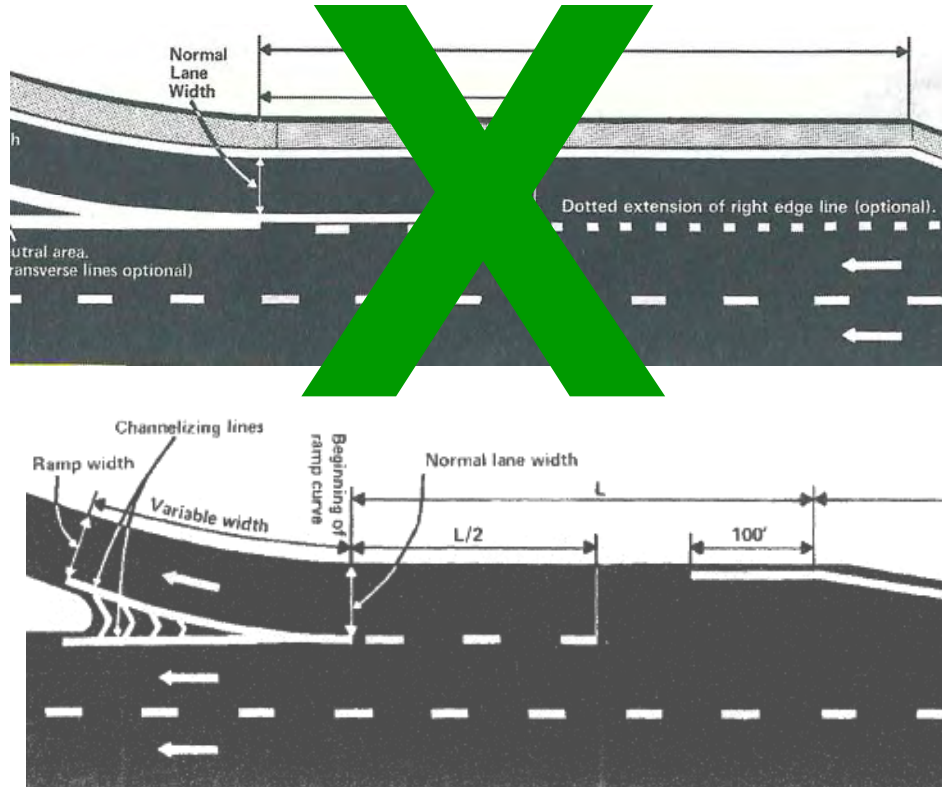
PAVEMENT MARKINGS – Acceleration/Deceleration Lane Markings

State MUTCD

White partial barrier line can be used at the end of the channelizing line for entrance/exit ramps.

National MUTCD

A lane line shall be extended from the end of the channelizing line for exit ramps, and should be extended for entrance ramps.

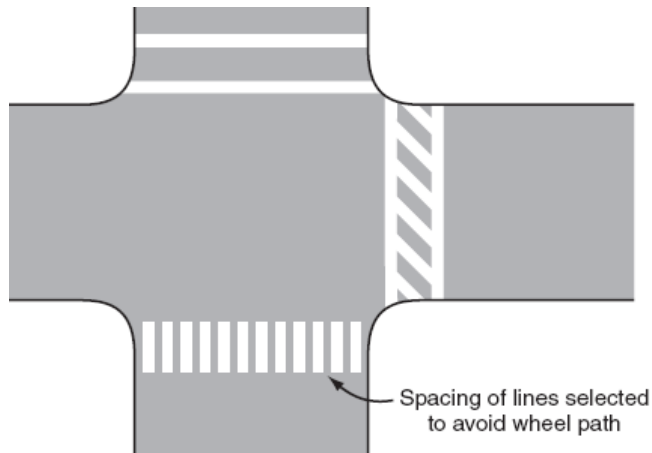


PAVEMENT MARKINGS – *Crosswalk Markings*

State MUTCD

Transverse lines shall be at least 6 inches wide, but generally should not be more than 12 inches wide. In no case shall the width of the lines exceed 24 inches.

Longitudinal lines should be 12 to 24 inches wide, and separated by spaces 12 to 24 inches wide.



National MUTCD

Transverse lines shall be at least 6 inches, but not more than 24 inches, wide.

Longitudinal lines should be 12 to 24 inches wide and spaced 12 to 60 inches apart. The marking design should avoid the wheel paths, and the spacing should not exceed 2.5 times the line width.

SIGNALS - *Placement*

State MUTCD

An intersection may have only one primary signal face under certain conditions.

8" signal lenses may be used for arrow signal indications under certain conditions.

Flashing beacon sizes can go as small as 6" in some cases.

Flashing beacons are placed 6"-12" from sign.

National MUTCD

A minimum of two signal faces shall be provided for the major movement on the approach, even if the major movement is a turning movement.

12" signal lenses shall be used for arrow signal indications.

Flashing beacons must be a minimum of 8".

Flashing beacons are placed 12"-24" from sign.



SIGNALS - *Pedestrian Clearance Time*

State MUTCD

The change interval should be the crossing time required by a pedestrian to travel at walking speed from the beginning of the crosswalk to the center of the far travel lane or the pedestrian refuge.

National MUTCD

The pedestrian clearance time should be sufficient to allow a pedestrian crossing in the crosswalk who left the curb or shoulder during the WALKING PERSON signal indication to travel at a walking speed of 4ft. per second to at least the far side of the traveled way or to a median.



SIGNALS - *Warrants*

State MUTCD

Warrant 1, Minimum Vehicular Volume
Warrant 2, Interruption of Continuous Traffic
Warrant 3, Minimum Pedestrian Volume
Warrant 4, School Crossing
Warrant 5, Progressive Movement
Warrant 6, Accident Experience
Warrant 7, Systems Warrant
Warrant 8, Combination of Warrants
Warrant 9, Four-Hour Volumes
Warrant 10, Peak Hour Delay
Warrant 11, Peak Hour Volume

National MUTCD

Warrant 1, Eight-Hour Vehicular Volume (1,2,8)
Warrant 2, Four-Hour Vehicular Volume (9)
Warrant 3, Peak Hour (10, 11)
Warrant 4, Pedestrian Volume (3)
Warrant 5, School Crossing (4)
Warrant 6, Coordinated Signal System (5)
Warrant 7, Crash Experience (6)
Warrant 8, Roadway Network (7)

WORK ZONE ISSUES - *General*

Diamond-shaped warning signs in freeway and expressway work zones must be a minimum of 48”.

Defines five types of work zones that determine the number & type of devices to use.

Provisions for ADA, bikes & peds in work zones.

Flagger qualifications & apparel requirements.

WORK ZONE ISSUES - Cones

State MUTCD

Requires single white stripe for cones less than 28".

Allows use of cones less than 28" at night on conventional highways at night.

Requires two white stripes for cones greater than or equal to 28".

National MUTCD

Does not require stripes on cones less than 18".

Requires cones at least 28" for freeways, high-speed (greater than or equal to 45 mph) roadways, and all highways at night.

Requires at least two orange and two white stripes for cones greater than 36".



WORK ZONE ISSUES - *Drums*

State MUTCD

Allows metal drums.

Size requirements based on circular shape.

Stripes must be 4"-8" wide.

Illustration shows top stripe being white.

National MUTCD

Disallows metal drums.

Size requirements based on different shapes.

Stripes must be 4"-6" wide.

Top stripe required to be orange.



FUTURE CHANGES

Revision #1 to the NYS Supplement should be officially adopted in February 2008.

Revision No. 2 to the 2003 National MUTCD adopted in December 2007. This revision included new retroreflectivity requirements.

MAJOR proposed changes to the National MUTCD released in January 2008. Comments will be accepted until July 31, 2008 (might be extended). Official adoption of changes expected in 2009 or 2010.

Change to National MUTCD will require MAJOR revisions to the NYS Supplement. Revision #2 to the NYS Supplement will coincide with adoption of revised National MUTCD (2009/2010).

QUESTIONS/COMMENTS/COMPLAINTS

WHEN YOU:	CONTACT:
Need a statement in the National MUTCD or Supplement clarified	Traffic or DQAB
Need design guidance	Traffic or DQAB
Think there's an error in the Supplement	Traffic
Think something should be added to the Supplement	Traffic

Traffic Contacts:

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DQAB Contacts:

Norm Schips - nschips@dot.state.ny.us - (518) 485-8611

Kevin Stanley - kstanley@dot.state.ny.us - (518) 485-8612

Questions?



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