To: New York State Department of Transportation

ENGINEERING BULLETIN

Title: SIGNING REQUIREMENTS FOR REDUCING 65 MPH SPEED LIMITS IN WORK ZONES

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Approved: /s/ Bruce W. Smith 03/20/03
Bruce W. Smith, Director, Traffic Engineering & Highway Safety Division

ADMINISTRATIVE INFORMATION:

! Effective Date: This Engineering Bulletin (EB) is effective immediately.
! Superseded Issuances: None.
! Disposition of Issued Materials: The guidance in this issuance will be incorporated into Chapter 16 of the Highway Design Manual.

PURPOSE: The purpose of this EB is to issue revisions to the guidance issued in an August 31, 1995 memo from T. C. Werner of the Traffic Engineering & Highway Safety Division to the Regional Traffic Engineers. The guidance details signing recommendations for reducing 65 mph speed limits in work zones.

TECHNICAL INFORMATION: Traffic should be maintained through a work zone using roadway geometry, roadside features, and temporary traffic control as close to normal conditions as practicable. While good design practice minimizes the need to reduce speed limits, the presence of conditions cited in EI 95-032 may justify a reduced speed limit. Two likely scenarios for reducing a 65 mph speed limit within a work zone are 1) reducing from a 65 mph speed limit to a 55 mph speed limit and 2) reducing from a 65 mph speed limit to a 45 mph speed limit with an intermediate reduction to 55 mph. In both scenarios, the speed reduction signing should be entirely upstream of the ½ mile advance signing for the restriction. Supplemental speed limit signs may be interspersed within the warning signs as necessary to maintain MUTCD required spacing. The speed limit signing should be as follows:

Case 1: 65 MPH Normal Speed Limit on a highway reduced to a Work Zone Speed Limit of 55 MPH

1. Install a “STATE LAW FINES DOUBLED FOR SPEEDING IN WORK ZONES” sign on both sides of the roadway 300 m (1000 feet) upstream of the first advance warning sign (usually a ROAD WORK 1 MILE” sign).

2. Install an R2-12 “REDUCED SPEED AHEAD” sign on both sides of the roadway at least 150 m downstream of the ROAD WORK 1 MILE sign. Place a W8-45 black on orange “WORK ZONE” panel directly above the R2-12 panel. Supplement each sign assembly with two orange 18” X 18” flags attached to the sign. Diamond-shaped orange panels similar to object markers may be attached to the top of the sign instead of flags.

3. Install an R 2-1 “SPEED LIMIT 55” sign on both sides of the roadway approximately 300 m (1000 feet) downstream from the “REDUCED SPEED AHEAD” signs. Authorization 99-3 eliminated the requirement for an R2-2 “STATE SPEED LIMIT” sign to post a linear 55 mph speed limit. Include the W8-45 “WORK ZONE” panel and the flags or diamond panels as detailed in step 2.
4. Install intermediate R2-1 “SPEED LIMIT 55” signs throughout the work zone. Place the first intermediate sign within 330 m (1100 feet) downstream of the first R2-1 sign, with a maximum spacing of 1.6 km (1 mile) between subsequent intermediate signs. Install a W8-45 “WORK ZONE” panel directly above each speed limit sign.

5. At the end of the work zone, install a G11-2 “END ROAD WORK” sign, followed 150 m (500 feet) downstream by an R2-1 “SPEED LIMIT 65” sign on both sides of the roadway. Do not use an R2-11 “END 55 MPH SPEED LIMIT” sign because that sign is intended to advise the driver to return to the statewide speed limit which is not applicable in this situation.

Case 2: 65 MPH Normal Speed Limit on a Highway with Stepped-Down Work Zone Speed Limits of 55 and 45 MPH. See the attached drawing for details.

1. Follow steps 1 through 4 above to reduce the speed limit to 55 mph except that the distance between the signs are reduced below MUTCD recommendations, as follows, to avoid excessively long and counterproductive reduced speed zones. While we recommend limiting the length of the reduced speed zone upstream of the work area to 1 mile, the speed limit reduction may, if deemed appropriate, be extended further upstream to provide MUTCD recommended spacings between signs.

   ♦ “ROAD WORK 1 MILE” sign to the R2-12 “REDUCED SPEED AHEAD” sign is reduced to 100 m (330 feet).
   ♦ R2-12 “REDUCED SPEED AHEAD” sign to the first R2-1 “SPEED LIMIT 55” sign is reduced to 150 m (500 feet).
   ♦ The first R2-1 “SPEED LIMIT 55” sign to the first (and only) intermediate R2-1 “SPEED LIMIT 55” sign is reduced to 150 m (500 feet).

2. Upstream of the 45 mph speed zone, and 100 m (330 feet) downstream of the last “SPEED LIMIT 55” sign, install an R2-12 “REDUCED SPEED AHEAD” sign assembly on both sides of the roadway as detailed in step 2 above.

3. Install an R2-1 “SPEED LIMIT 45” sign on both sides of the roadway approximately 150 m (500 feet) downstream from the “REDUCED SPEED AHEAD” signs and complete the sign assembly as detailed in step 3 above.

4. Install intermediate R2-1 “SPEED LIMIT 45” signs throughout the work zone. Place the first intermediate sign a maximum of 330 m (1100 feet) downstream from the first R2-1, and at least 150 m (500 feet) downstream of the ½ mile warning sign. Use a maximum spacing of 1,350 m (4500 feet) between subsequent R2-1s. Install a W8-45 panel directly above each speed limit sign.

5. If the speed limit is increased to 55 mph before the end of the work zone, install an R2-1, “SPEED LIMIT 55” sign on both sides of the roadway and install proper intermediate R2-1 signs as detailed in Case 1, step 4 above.

6. At the end of the work zone, install a G11-2 “END ROAD WORK” sign followed 150 m (500 feet) downstream by an R2-1 “SPEED LIMIT 65” sign on both sides of the roadway.
IMPLEMENTATION: Designers should incorporate this guidance into M&PT plans if they are not already doing so. Transportation Maintenance work zones shall also be consistent with this guidance.

BACKGROUND: An August 31, 1995 memo from the Traffic Engineering & Highway Safety Division was written to supplement the guidance for selecting speed limits in EI 95-032. At that time, the Department could not legally sign a linear 55 mph speed limit with an R2-1 linear speed limit sign, and the memo detailed the requirements to sign an enforceable speed limit reduction from 65 mph to the statewide speed limit of 55 mph. Authorization 99-3 eliminated the requirement that an R2-2 statewide speed limit sign be used to sign a linear 55 mph speed limit and allows use of the R2-1 sign.

CONTACT: Direct any questions to Chuck Riedel of the Traffic Engineering and Highway Safety Division at 457-2185 or at criedel@dot.state.ny.us.
1. The work zone speed limit shall be in effect during work hours when workers occupy a travel lane or shoulder or when travel lanes are reduced in width or A.O.B.E. When the work zone speed limit is in effect the existing 65 mph speed limit sign shall be covered.

2. During non-working hours, the reduced speed limit signs (45 mph, 55 mph and reduced speed ahead) shall be covered and the existing speed limit signs shall be uncovered.

3. The contractor shall use separate speed limit sign panels. Changing the numbers on the existing speed limit panel shall not be allowed.

4. When a reduced speed zone is in effect place R2-1E (65 mph) within 152 m of the end of the work zone unless an existing R2-1E is in close proximity.

5. Repeat subsequent intermediate 45 mph signs at 137 m maximum intervals.

6. The reduced speed limit signs shown on this detail are referenced from the ½ mile lane closure sign. See the appropriate lane closure details for the layout of additional signs and delineating devices.

7. When a reduced speed zone is in effect place R2-1E (45 mph) on all on-ramps and within 150 m downstream of all intersections.