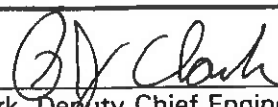


TO: R: SUPERSEDED BY D: <u>EI 07-006</u> F: <u>9/06/07</u> B: EFFECTIVE	ENGINEERING INSTRUCTION NEW YORK STATE DEPARTMENT OF TRANSPORTATION SUBJECT: GUIDELINES FOR BREAKAWAY CONSTRUCTION SIGN SUPPORTS (§619-3.02) Subject Code: 7.27-1-619
Distribution: 30 Main Office 31 Municipalities 32 Regions 34 Consultants APPROVED:  P.J. Clark, Deputy Chief Engineer, Facilities Design Division	Code: EI-94-017 Date: June 20, 1994 Supersedes:

Effective with the letting of October 20, 1994, the attached shelf note will be inserted in all contracts with pay items for construction signs, Item 619.02.

Existing requirements for construction sign supports, found in §619-3.02 of the Standard Specifications, provide minimal detail relative to impact safety, but require that construction signs shall be in accordance with the MUTCD. Section 301.2(a)(3) of the MUTCD requires that portable sign supports should minimize the risk of damage or injury if struck by an errant vehicle.

The attached shelf note is not intended to add new requirements relative to sign supports. Rather, it provides guidelines and a number of options for meeting the existing requirements in the Specifications and MUTCD. Because it does not add new requirements, and it provides a full range of options to the Contractor, it is anticipated that this shelf note will enhance work zone safety without adding to the cost of complying with existing requirements.

In addition to its insertion in new proposals, this shelf note should be used for guidance on active contracts. Even if this note is not included, the Contractor is obligated to provide safe sign supports meeting existing requirements of the specifications and MUTCD. This shelf note provides various options to the Contractor to meet these existing requirements.

Questions on this material for contracts still in the design phase should be referred to the Specifications and Standards section of the Design Quality Assurance Bureau at 518-457-4093.

Questions on this material for contracts already under construction should be referred to the Construction Division office at 518-457-6475.

CONSTRUCTION SIGN SUPPORTS

Make the following *changes* to the Standard Specifications of January 2, 1990:

Page 6-59

Under §619-3.02 Construction Signs, Reflectorized Signs, *delete* the 1st paragraph in its entirety and *replace* it with the following:

The Contractor shall furnish and erect appropriate construction signs to adequately and safely inform and direct the motorist and to satisfy legal requirements. These signs shall be removed and/or relocated as required in the contract documents and as directed by the Engineer. Signs that are erected and removed or relocated on a daily basis, or that must be frequently relocated to adjust to the location of construction operations, may be mounted on portable sign supports. Signs that are to remain at a fixed location may be supported on posts mounted in the ground. The type of sign supports used shall be selected by the Contractor, subject to the approval of the Engineer. All sign supports shall display the sign panel in a vertical position (± 5 degrees from perpendicular). If rigid diagonal bracing is used, the high end of such bracing shall face away from approaching traffic. All supports, except those located beyond the deflection distances of guiderail or temporary barrier, or otherwise protected against impact by errant vehicles, shall meet the following safety requirements for portable and fixed supports.

1. **PORTABLE SUPPORTS.** Ballast used to stabilize supports shall be bagged sand or other suitable material approved by the engineer, and shall be located at ground level. Portable supports shall comply with one of the following:
 - a. Manufactured portable supports designed for the display of signs in temporary traffic areas.
 - b. Wood supports fabricated by the Contractor, with a maximum member size of 2 in. by 6 in.
 - c. Metal supports fabricated by the Contractor, using square perforated or unperforated steel tube, maximum size 2 inches, conforming to ASTM A446 Grade A.
2. **FIXED SUPPORTS.** If stakes are used to attach the lower end of diagonal braces to the ground, they shall not protrude more than 4 inches above the ground surface. Fixed supports shall comply with one of the following:
 - a. Type A Sign Supports meeting the requirements of §730-24 and the applicable Materials Details may be used for sign sizes appropriate for those supports.
 - b. Sign posts and footings meeting the requirements of §730-20 and the applicable Standard Sheets may be used for sign sizes appropriate for those supports.

- c. Wood posts, excluding any synthetic or composite wood product, may be used as follows:
- Wood posts up to 4 in. by 4 in.
 - Wood posts up to 6 in. by 8 in. having 2 holes of 3 in. diameter; drilled in the direction perpendicular to the flow of traffic and located 4 in. and 18 in above ground level. These holes shall be filled with flexible caulking.
 - Wood posts larger than 6 in. by 8 in. shall not be used.
 - No more than two posts of acceptable sizes as listed above shall be located within a single 7 ft. width.
- d. Any other support that the Contractor may select, upon submission of documentation to the Engineer demonstrating that the post selected meets the current AASHTO and NCHRP criteria for impact performance of Highway Sign Supports.

Supports for construction signs shielded by barrier or guiderail, and located beyond the deflection distance described below, do not have to conform to the above safety requirements.

GUIDE RAIL AND BARRIER DEFLECTION DISTANCES					
GUIDE RAIL TYPE	CABLE GUIDE RAIL	CORRUGATED BEAM		BOX BEAM	CONC BARR
		WEAK POST	HEAVY POST		
DEFLECTION	11 ft.	8 ft.	4 ft.	5 ft.	0 ft.