STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT, JR.
GOVERNOR

E. NORRIS TOLSON
SECRETARY

August 27, 1998

MEMORANDUM TO : J. M. Lynch, PE
State Traffic Engineer

FROM : R. C. McCann, PE
Division Operations Engineer, Div. 11

SUBJECT : Methods of Determining Passing and No Passing Zones

I am on a committee, chaired by Ron Willis, charged with developing training courses for Division Traffic Services personnel as part of the Skill Based Pay program. During development of a course for determining the locations of passing and no passing zones, we discovered what we perceive to be a problem which needs clarification.

There are two methods used by the various Divisions to determine passing and no passing zones - the two vehicle method and the one vehicle method. The State is almost evenly divided between the number which use each method. As you may recall, for many years the two vehicle method was the primary method in North Carolina. Dr. Joe Hummer and Richard Brown conducted a research project for NCDOT on the various methods of performing this work. Their conclusion was that the one vehicle method was accurate and acceptable. After their presentation to the TEB-TSS meeting in 1996, several Divisions began to use the one vehicle method.

While preparing a training course on methods of determining passing and no passing zones, we researched the MUTCD and the North Carolina Supplement to the MUTCD. Although the MUTCD does not specifically mention the one vehicle method, the Traffic Control Devices Handbook from the MUTCD does mention "various methods" in Section 3E-2. Therefore, we assume that the MUTCD will allow another method if it has been proven and accepted by a State.

The problem is that the North Carolina Supplement to the MUTCD ***does*** list a specific method of determining the locations of passing and no passing zones. In Section 3B-5, paragraph 2, it is stated "In determining the sections of roadway to be marked for No Passing zones in accordance with the Minimum Sight Distance schedule, an object height of 3.50 feet and a visual height-of-

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eye of 3.50 feet ***shall be used".*** To our committee, this seems to say that the two vehicle method is required since the two vehicle method is the only method which uses mirrors and a target located exactly at 3.50 feet above the pavement surface.

We understand it has been the position of the Traffic Engineering Branch not to dictate to the Divisions which of the two subject methods to use. However, our committee feels that we need some official acceptance of the one vehicle method, and possibly a change to the North Carolina Supplement to the MUTCD, before we can complete a training course involving the one vehicle method.

Please consider this problem and give us your guidance and recommendations.

cc: J. D. Goins, PE
C. A. Gardner, PE
W. E. Hoke, PE
Ron Willis