



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES G. MARTIN
GOVERNOR

Wilson, North Carolina 27895
November 27, 1989

DIVISION OF HIGHWAYS

MES E. HARRINGTON
SECRETARY

GEORGE E. WELLS, P.E.
STATE HIGHWAY ADMINISTRATOR

MEMORANDUM TO: Mr. N. C. Crowe, Jr., P.E.
Assistant State Traffic Engineer
Field Operations

FROM: Larry N. Stallings, P.E. *LSN*
Area Traffic Engineer

SUBJECT: Guidelines For Providing Signal Heads At
Driveways Located At "Tee" Intersections That
Are Presently Signalized Or Being Considered
For Signalization

As requested in your memorandum of November 15, 1989 we have reviewed the proposed "Guidelines" for providing signal heads at driveways located at "Tee" type intersections that are presently signalized or being considered for signalization." The following is a summary of our analysis of these proposed guidelines:

Heads should be provided if the following conditions are met.

It is our recommendation that signalization of a entrance opposite the stem of a "Tee" type intersection should be based on need, safety and overall traffic operation of the subject location. We do not think that minimum volumes should be established. Existing policies and/or guidelines presently determine location that should be signalized and the inclusion of opposite driveway at these "Tee" type locations should be included as part of the total signal investigation of the subject intersection.

Other considerations and provisions.

1. When heads are to be added to existing signalized intersections, the cost of these heads should be borne by the property owner, business, industry or municipality when located in a municipality. When additional phases are required, the cost of this revision should also be borne by the municipality businesses, etc., requesting the change. The cost of loops, if required, should also be the responsibility of others where heads are added at existing signalized intersections.

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2. When new signals are to be installed, heads are to be considered in the initial design stage. The cost to provide these heads, loops, etc., if justified, are to be included in the initial request for funds.
3. When multiple driveways are located opposite the stem of a signalized "Tee", and heads are warranted, every effort should be made to combine these driveways into one single multi-use driveway, serving one or more businesses, etc. If additional phases are required to provide heads for multiple driveways and agreement cannot be reached where one multi-use driveway can be utilized, then the cost of upgrading the intersection signal should be borne by the requestors. (City, business, etc.)
4. At actuated signals, loops may need to be placed on private property. An encroachment agreement may be required to allow the State or municipality to maintain the loops.
5. As signalized intersections are routinely upgraded, heads for driveways, streets, etc., opposite a "Tee" should be considered and included as long as they meet the above criteria. These should be included in the cost of upgrading the traffic signal.

The above provisions are basically our current guidelines and should continue to be utilized. However, all "shall" conditions in the proposed guidelines submitted for review need to be revised to "should" conditions.

In conclusion it is our opinion that any entrance opposite the stem of a signalized "Tee" type intersection should be considered and/or included as part of the traffic signal based on safety, overall traffic operations and potential road user benefit. Also, we agree that any extra cost involved in the signalization of these entrances should be borne by the requestors when possible. However, the final responsibility for highway safety and design of signalized intersections on "State Highway Facilities" is a function of the North Carolina Department of Transportation and/or the Traffic Engineering Branch. Therefore, if the entrance opposite the stem of a "Tee" intersection needs to be included as part of any traffic signal design we should include it and obtain all necessary funds as required to implement the design.

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If additional information is required concerning this matter,
please advise.

LNS/pbh

cc: Mr. John F. Permar, P.E.