

VIRGINIA DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION**INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM**

GENERAL SUBJECT: Traffic Structures	NUMBER: IIM-S&B-82 TED- 357
SPECIFIC SUBJECT: Establishing procedures for shop plans, modifications, maintenance, and inspection of traffic structures.	Date: July 23, 2008
	SUPERSEDES: SB-69-02/TE-310 SB-66.1/MM-322 MM-323
DIVISION ADMINISTRATOR APPROVAL:	
<p style="text-align: center;">Kendal R. Walus, P.E. /Original Signed State Structure and Bridge Engineer Approved: July 23, 2008</p> <p style="text-align: center;">R. J. Khoury, P.E. /Original Signed State Traffic Engineer Approved: July 23, 2008</p>	

EFFECTIVE DATE: This memorandum is effective upon receipt.

This I&IM replaces the following memorandums: SB-69-02/TE-310 *Modifications of Traffic Control Device Structures*, SB-66.1/MM-322 *Inventory of Traffic Control Device Structures*, and MM-323 *Procedure for Review and Retention of Traffic Control Device Shop Drawing/Catalog Cut Submittals*

This memo addresses the following types of traffic structures:

- Overhead span sign structure
- Cantilever sign structure
- Bridge parapet mounted sign structure
- Traffic signal structure
- Offset lighting pole
- Butterfly sign structure
- High mast lighting structure
- Camera pole
- Conventional lighting pole

The purpose of this memorandum is to clarify and update previous memoranda between the Structure and Bridge Division and Traffic Engineering Division and addresses the following areas related to traffic structures: review/retention of shop plans, modifications to structures,

maintenance of structures, and safety inspection. Hereinafter, these structures will be collectively referred to as traffic structures.

Review/Retention of Shop Plans:

The Construction Manager or other manager as appropriate shall forward all but one copy of the plans, computations, and shop drawings for the traffic structures to the Regional Operations Maintenance Manager or other section engineer as appropriate for verification of vertical clearance, sign panel location and size, and other non-structural related requirements. The Construction Manager or other manager as appropriate shall forward one copy of the plans, computations, and shop drawings for the traffic structures listed above to the District Structure and Bridge Engineer for a structural review. The District Structure and Bridge Engineer shall provide a set of comments and/or marked up drawings to the Regional Operations Maintenance Manager or other section engineer as appropriate so that joint comments may be developed in order to avoid conflicting reviews on submittals. The Regional Operations Maintenance Manager or other section engineer as appropriate shall return the comments to the Construction Manager or other manager as appropriate for distribution upon completion of the project to the following:

- Contractor
- Regional Operations Maintenance Manager
- Regional Traffic Engineer
- Municipality
- Project Engineer
- State Materials Engineer response letter only
- District Materials Engineer response letter only
- District Structure and Bridge Engineer
- State Structure and Bridge Engineer (Attention: Engineering Services)

Based on business need, this policy may be modified on projects where consultants are retained by the Department for shop drawing review; however, the District Structure and Bridge Engineer shall be sent a copy of the final approved submittal(s) to assist in the initial acceptance inspection.

The Regional Operations Maintenance Manager or other section engineer as appropriate shall be responsible for maintaining an archive of the As-Built contract plans, shop plans, calculations, and correspondence.

Modifications to Traffic Structures:

No modifications shall be performed / executed on traffic structures without approval of the District Structure and Bridge Engineer. These modifications shall include but not be limited to the following: movement of signals or signs, increase in number or size of signals, sign panels, etc.

Prior to performing modifications to existing traffic structures, the Section Engineer responsible for the design of the modification shall prompt the Regional Operations Maintenance Manager to request a structural review to be performed by the District Structure and Bridge Engineer. At the time of the request, they should provide a copy of the As-Built shop drawings and computations for the traffic structure and plans for the proposed modifications.

The District Structure and Bridge Engineer may coordinate this review as necessary with the Central Office Structure and Bridge Division or a consultant.

For modifications to traffic structures during construction, the Construction Manager or other manager as appropriate shall have the fabricator/designer provide revised computations and plans reflecting the actual field conditions for review and approval.

Maintenance of Traffic Structures:

The Regional Operations Maintenance Manager or other section engineer as appropriate shall be responsible for coordinating and funding all maintenance activities associated with traffic structures, including the development of replacement or relocation plans when warranted. As required, the District Structure Bridge Office will provide structural engineering support.

Safety Inspection:

All inspections on traffic structures shall be performed by the District Structure and Bridge Office or authorized consultant.

Initial Acceptance Inspection:

It is the responsibility of the Construction Manager or other manager as appropriate to notify the District Structure and Bridge Engineer, in writing, upon completion of construction and prior to final acceptance of traffic structures and to provide the following information:

1. Memo requesting the inspection of the traffic structures. This memo is included with this document in appendix A or may be obtained in Microsoft Word ® format on the internet at the following link:

<http://www.extranet.vdot.state.va.us/locdes/electronic%20pubs/Bridge%20Manuals/IIM/SBIIM.pdf>

Click on the link in the table of contents for IIM-S&B-82 and then click on the attachment tab on the left hand side.

2. Upon receipt of the request, the District Structure and Bridge Engineer shall perform the following:
 - a. Set up a separate file folder for each traffic structure and add the traffic structure to the appropriate database.
 - b. Establish a unique structure number and stencil the number on the traffic structure during the initial inspection.
 - c. Complete the inspection report for each traffic structure per the manual, *Procedures for Inventory and Inspection of Traffic Control Device Structure*.
3. The Construction Manager or other manager as appropriate shall coordinate with the Contractor to provide access to the traffic structures to the District Structure and Bridge Engineer representative to perform the inspection and to provide traffic control as needed for the inspection.
4. The District Structure and Bridge Engineer shall notify the Construction Project Manager and Regional Operations Maintenance Manager or other section engineer as appropriate of all deficiencies that require corrective action.
5. Following any corrective action needed from the initial inspection, the Construction Manager or other manager as appropriate shall request in writing from the District Structure and Bridge Engineer the re-inspection of the traffic structures using the same form in step one.

Scheduled Inspection:

The District Structure and Bridge office shall perform scheduled inspection(s) for the traffic structures in accordance with the procedures set forth in the manual, *Procedures for Inventory and Inspection of Traffic Control Device Structures*. The District Structure and Bridge Engineer will perform the following tasks:

1. Re-inspect traffic structures per the established frequency. Typically, traffic structures are inspected every 5 years, but may require more frequent inspection. For example, traffic structures that show signs of section loss, corrosion of anchor bolt, etc. may require a more frequent inspection frequency.
2. After the inspection, forward an electronic copy of the completed inspection report to the Regional Operations Maintenance Manager or other engineer as appropriate and the Residency Administrator.
3. Structural deficiencies, required correction and priority order as noted in the inspection report will be brought to the attention of the Regional Operations Maintenance Manager or other section engineer as appropriate.

Non-scheduled Inspection:

The Regional Operations Maintenance Manager or other section engineer as appropriate shall request a re-inspection by the District Structure and Bridge Engineer of these traffic structures following any planned upgrade, improvement and/or modification.

Upon request, the District Structure and Bridge office shall perform the inspection for the traffic structures in accordance with the procedures set forth in the manual, *Procedures for Inventory and Inspection of Traffic Control Device Structures*. The District Structure and Bridge Engineer will perform the following tasks:

1. Re-inspect traffic structures.
2. After the inspection, forward an electronic copy of the completed inspection report to the Regional Operations Maintenance Manager or the Regional Traffic Operations Manager (as appropriate) and the Residency Administrator.
3. Structural deficiencies requiring correction as noted in the inspection report will be brought to the attention of the Regional Operations Maintenance Manager or other section engineer as appropriate.

Removal from Service:

The Regional Operations Maintenance Manager or other section engineer as appropriate shall inform the District Structure and Bridge Engineer when these traffic structures are removed from service so that they may be removed from the database.

CC:

Chief Engineer
Chief of Systems Operations
Traffic Engineering Division Director
Asset Management Division Director
District Construction Engineers
District PE Managers
District Maintenance Engineers
District Structure and Bridge Engineers
Regional Operations Maintenance Manager
Regional Operations Directors
Residency Administrators
Regional Traffic Operations Manager
Regional Traffic Engineer

Enclosures

Appendix A

<p style="text-align: center;">REQUEST FOR INSPECTION OF TRAFFIC CONTROL STRUCTURES</p>
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INTEROFFICE MEMORANDUM

Date:

Project Number:

Universal Project Code (UPC):

TO:

FROM:

The following traffic control structures require an inspection prior to acceptance by VDOT/City/County:

Structure ID *	Location	Type of Structure	Structure Number

* As referenced on the traffic/sign plans.
(Attach additional sheets if necessary)

Enclosed you will find:

- ___ 1) A set of traffic/sign plans (plan sheets and layout sheets).
- ___ 2) PE stamped and approved shop plans (structure fabrication plans).
- ___ 3) PE stamped and approved foundation plans (if applicable).
- ___ 4) Computer output/manual design calculations -- superstructure and foundation.
- ___ 5) Miscellaneous correspondence indicating fabricator, contractor and PE stamped review.