VIRGINIA DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM

GENERAL SUBJECT: CROSSING OF EMERGENCY RESPONSE VEHICLES OVER POSTED BRIDGES OR CULVERTS	NUMBER: IIM-S&B-75
SPECIFIC SUBJECT:	Date: DECEMBER 3, 2007
	SUPERSEDES: N/A
DIVISION ADMINISTRATOR APPROVAL:	Kendal R. Walus, P.E. State Structure and Bridge Engineer Approved December 3, 2007

Changes are shaded.

CURRENT REVISION

- Converted to electronic format. The subject matter of the IIM did not change.

EFFECTIVE DATE

- This memorandum is effective upon receipt

POLICY

Implementation Process for HB 1679 and SB 742

Introduction:

During the General Assembly's (GA) session in January 2007, the GA has approved an amendment to the Code of Virginia section 46.2-1130 that allows the responsible agency or entity to grant authorization to certain emergency response vehicles to cross over posted bridges or culverts provided that an engineering analysis is performed by a licensed professional engineer. The amendment was proposed under two similar bills, Senate Bill 742

and House Bill 1679 and the new law will be in affect July 1, 2007. Copies of the approved Acts are included in Appendix A at the end of this document.

To facilitate the requirements of the new law, the Department will implement the described below process effective July 1, 2007.

For the purpose of this document the term "structure" shall mean a bridge or culvert.

The Department will utilize the existing Land Use Permit (LUP) program being administered by the Residencies to facilitate this special process. This process applies to structures maintained only by the Department.

Authorization Process:

Phase 1 (Access Authorization for Condition Assessment and Evaluation of Posted Structure)

1. All LUP applications must be submitted by the appropriate locality to VDOT's corresponding Residency office.
2. The application will be initiated by completing and submitting a Land Use Permit form LUP-A.
3. The application shall identify the posted structure(s) that are requested to be crossed. The identification information of the posted structure(s) shall be provided in the "Request Permission" section of LUP-A form.
    a. Location information shall include:
        i. County name
        ii. Route name and number
        iii. Name of the facility crossed by the structure (i.e. waterway, railroad or route name)
        iv. Distance of the posted structure to the nearest road intersection (i.e. 4.2 miles from Route 625, and 1.2 miles from Rte 600)
        v. Bridge name if available
        vi. Bridge number, if available. The bridge number is a four (4) digit number typically painted on the structure on the right side of the structure as you begin to cross the structure.
4. The Residency LUP manager will forward the application to the District Structure and Bridge Engineer (DSBE) within five (5) working days of receiving the application packet.
5. The DSBE or his/her designee within five (5) working days of receiving the request from the Residency will provide the LUP manager with copies of the latest safety inspection report, as built plans, VDOT's latest load rating policy in the Structure and Bridge Division Instructional and Informational Memorandum (SB-27.5 or current version), and any other material that would assist the applicant in performing the required engineering load rating analysis.
6. The Residency LUP manager within five (5) working days of receiving the information from the DSBE will contact the applicant and provide them with the material received from the DSBE in order to perform the load rating calculations and provide the required information listed in section 8 for approval.

7. The Residency LUP manager will grant the applicant site access authorization for the purpose of onsite condition assessment and evaluation of the posted structure(s) by the applicant or their engineer in order to perform the required load rating calculations.

Phase 2 (Crossing Authorization)

8. The applicant is required to submit two (2) copies of each of the below listed items to the Residency LUP manager.
    a. Vehicle Identification Number (VIN) of the emergency response vehicle (ERV).
    b. Copy of the vehicle registration
    c. ERV's configuration (axle weight and spacing), empty weight empty and gross weight (vehicle's weight loaded with water, equipment, etc).
    d. Load rating calculations for each posted structure that is requested in the LUP application to be crossed by the ERV.
        i. The load rating calculations must be performed and signed and sealed by a licensed professional engineer in the Commonwealth of Virginia.
        ii. The load rating calculations must be performed in accordance with the American Association of State Highway Transportation Official's (AASHTO's) "Manual for the Condition and Evaluation of Bridges" and the latest applicable guidelines and requirements that are established by the National Bridge Inspection Standards, and the Virginia Department of Transportation (VDOT). The load rating method shall conform to the original load design method, i.e. Working Stress, Load Factor Design, etc.
        iii. A Crossing Authorization Summary Sheet (see Appendix B) for each load rated structure showing the load carrying capacity, posted capacity, and the authorized capacity in tonnage for the posted structure that is proposed to be crossed by the ERV.
        iv. Endorsement statement by the Professional Engineer to allow the ERV to cross the Posted structure.
9. The Residency LUP manager will retain a copy of the information packet and send the other copy to the DSBE.
10. The DSBE or his/her designee will review the information and respond to the Residency LUP manager with an acceptance or denial, within ten (10) working days of receiving the application packet, using a standard authorization form.
11. The Residency LUP manager within five (5) working days of receiving the authorization form from the DSBE shall then contact the locality and provide them the authorization form indicating the status of their request (Approved or Denied).
12. The authorization will be valid for a twelve (12) month period effective on the date the authorization form is signed by the DSBE.
13. Renewal of this authorization is required every twelve (12) months or upon a change in the condition of the structure. The renewal process does not require the locality to reapply for a LUP with the Residency to access the structure for the purpose of performing condition assessment and evaluation. The locality shall submit updated calculations conforming to the requirements listed in section 8 of this document to the Residency for review and approval.
14. If the posted capacity of a structure is reduced during the term of a current ERV twelve (12) month authorization period the DSBE or his/her designee shall immediately notify the Residency LUP manager in writing of the change in condition and nullify the authorization to cross the affected structure. The Residency LUP manager shall then contact the locality and inform them of the nullification of the authorization to cross the affected structure and the need for them to submit a request for renewal along with updated calculations.

APPENDIX A

CHAPTER 177

An Act to amend the Code of Virginia by adding a section numbered 46.2-1130.1, relating to issuance of overweight permits granted to cross bridges and culverts by certain emergency response vehicles responding to an emergency call.

[H 1679]

Approved March 9, 2007

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 46.2-1130.1 as follows:

§ 46.2-1130.1. Overweight permits granted to cross bridges and culverts by certain emergency response vehicles responding to an emergency call.

Notwithstanding the provisions of §§ 46.2-1104 and 46.2-1130, emergency response vehicles, including fire and emergency medical apparatus responding to and returning from an emergency call, may be permitted to exceed the gross weight limit posted on a bridge or culvert, except those maintained by a railroad, provided that a determination has been made by a licensed professional engineer, qualified in the appropriate discipline, that the emergency response vehicle can safely cross that bridge or culvert and that determination has been documented by the issuance of a written permit or letter of authorization by the agency or entity responsible for the maintenance of that bridge or culvert.

The permitting agency or entity shall not be held liable for any damage or injury caused as a result of an emergency response vehicle crossing a bridge or culvert while responding to or returning from an emergency call under the conditions specified in the overweight permit pursuant to this section.

APPENDIX A (continued)

CHAPTER 540

An Act to amend the Code of Virginia by adding a section numbered 46.2-1130.1, relating to issuance of overweight permits granted to cross bridges and culverts by certain emergency response vehicles responding to an emergency call.
[S 742]
Approved March 19, 2007

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 46.2-1130.1 as follows:

§ 46.2-1130.1. Overweight permits granted to cross bridges and culverts by certain emergency response vehicles responding to an emergency call.

Notwithstanding the provisions of §§ 46.2-1104 and 46.2-1130, emergency response vehicles, including fire and emergency medical apparatus responding to and returning from an emergency call, may be permitted to exceed the gross weight limit posted on a bridge or culvert, except those maintained by a railroad, provided that a determination has been made by a licensed professional engineer, qualified in the appropriate discipline, that the emergency response vehicle can safely cross that bridge or culvert and that determination has been documented by the issuance of a written permit or letter of authorization by the agency or entity responsible for the maintenance of that bridge or culvert.

The permitting agency or entity shall not be held liable for any damage or injury caused as a result of an emergency response vehicle crossing a bridge or culvert while responding to or returning from an emergency call under the conditions specified in the overweight permit pursuant to this section.

APPENDIX B

CROSSING AUTHORIZATION SUMMARY SHEET

NAME OF APPLICANT _____

EMERGENCY RESPONSE VEHICLE CONFIGURATION

Empty Vehicle Weight (lbs) _____ Gross Vehicle Weight (lbs) _____

AXLE NUMBER	SPACING (feet)	EMPTY WEIGHT AXLE LOAD (lbs)	GROSS WEIGHT AXLE LOAD (lbs)
Axle 1			
Axle 2			
Axle 3			
Axle 4			
Axle 5			
Axle 6			
Axle 7			

LOCATION OF STRUCTURE

County _____

Route _____

Feature Crossed _____

Structure Number _____

Load Carrying Capacity (Virginia Legal Vehicle) _____ Tons

Posted Capacity (Virginia Legal Vehicle) _____ Tons

Authorized Capacity (Emergency Response Vehicle _____ Tons

ENDORSEMENT STATEMENT

I have reviewed all data submitted to me by the applicant and the Virginia Department of Transportation and have taken into account all items that will affect the ability of the stated structure to carry the indicated Emergency Response Vehicle. The indicated Emergency Response Vehicle can safely cross the indicated structure.

Signature of the Professional Engineer who completed the attached calculations _____

Date _____

Please attach all calculations

The below is to be filled out by a representative of the Virginia Department of Transportation.

Approved ____ Comments: _____

Denied ____

District Structure and Bridge Engineer _____

Date _____