#### Update on Bridges Report Commonwealth Transportation Board Meeting October 18, 2007

#### Status of re-inspection of Commonwealth's deck truss structures

- Eleven (11) deck truss structures are in the Commonwealth's Inventory
- All re-inspections were completed by October 1, 2007
- Consultant inspection reports were delivered to the District Structure and Bridge (S&B) Offices and Central Office on October 1, 2007
- District S&B offices reviewed inspection reports and reported findings to Central Office S&B on October 5, 2007.
- Inspection findings that required actions by the S&B Division:
  - o **Route 340 over Jeremiah Run** Strengthening of four structural members to maintain legal load posting. Work accomplished on August 22<sup>nd</sup> & 23<sup>rd</sup>.
  - o **Route 340 over Overall Run** Strengthening of five structural members to maintain legal load posting. Work accomplished on August 24<sup>th</sup>.
  - o Route 3 over Rappahannock River
    - September 13, 2007 Posted structure to legal load limits based on field indication of an abnormality in a structural pin. Upon review, follow up analysis and expert evaluation this abnormality is ruled to be a forging abnormality and is not significant to the structural condition of the bridge.
    - Findings from the in-depth inspection warrant a load rating analysis of the structure to be performed. The load rating analysis will be completed by October 26, 2007.
    - October 3, 2007 Posted the structure to a three (3) ton loading limit. The in-depth inspection report described one (1) additional pin with an abnormality. The follow up investigation confirmed an abnormality in the pin and it was determined the pin needed to be replaced.
    - Replacement of the pin is scheduled to be completed on November 3, 2007.

#### Status of quality control review of the Commonwealth's Fracture Critical Structures

- There are 305 fracture critical structure in the Commonwealth's Inventory
- The latest inspection reports for all 305 structures have been reviewed by Central Office S&B quality control personnel.
- No major problems were discovered during the review of the inspection reports.
- Central Office quality control personnel are currently performing field reviews of ten (10%) percent of each District's fracture critical inventory.
- The quality control review for all nine (9) construction districts is to be completed by mid December 2007.

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#### Bridge closing actions since August 3, 2007

### Route 646 (Aden Road) over NS Railroad Prince William County- NOVA (August 30<sup>th</sup>)

A recent inspection of the structure indicated advanced deterioration of the timber plank deck. This structure is maintained by the Norfolk Southern Railroad. The railroad has been notified of the need to replace the timber plank decking.

### Route 743 over Carvin Creek Roanoke County-Salem District (September 11th)

A recent inspection of the structure indicated all four corners of the abutments have cracks and have begun to rotate. The detour will be approximately 1/4 mile. The bridge is in the current SYIP to be replaced (UPC 58280). Planned advertisement date is May 2013. The project is not fully funded.

## **Route 94 over the New River Grayson County – Bristol District (September 14<sup>th</sup>)**

A recent follow up inspection determined the need to close the bridge due to advanced deterioration in the web of one floor beam. Repairs were made to the bridge and it was reopened to traffic on September 28<sup>th</sup>

# Route 678 (W. Providence Rd.) over Beaver Pond Creek Chesterfield County – Richmond District (September 18<sup>th</sup>)

On the night of September 17<sup>th</sup> a vehicle crashed into and destroyed the parapet of this simple span bridge. Based on the condition of the bridge superstructure it was determined to be cost effective to replace the entire superstructure for this bridge. Emergency contract has been issued to replace the superstructure and perform minor repairs to the substructure. The work is anticipated to be completed by the end of this year.

# Route I-495 over Route 50 Lane Closure NOVA District (October 2<sup>nd</sup>)

The Route 495 Bridge was struck by a truck hauling an excavator on the night of October 1<sup>st</sup>. The resulting damage requires the replacement of the outside beam. The traffic lanes remain restricted until the bridge is repaired. Preparation of repair/replacement plans will take 3-6 months, and PE plus CN will likely cost \$600-\$800k.

## Route 673 over Wolf Creek Giles County – Salem District (October 16<sup>th</sup>)

A recent inspection of the structure indicated advanced deterioration of the structural support system. The bridge has been posted for the past several years at 3 tons. Based on the recent inspection report a load rating analysis was performed and resulted in a rating less then 3 tons. This bridge is located on a short section of road (0.2 mi) and basically serves as a crossover between Routes 61 and 724. The District Resident Administrator has reported that he does not expect the closure to have a significant impact on the local community.