

**Heartland Corridor – Clearance Project**  
**FHWA Quarterly Status Report**  
 November 6, 2008

<p><b>Project Description:</b> The Heartland Corridor Clearance Project will enable double-stacked international maritime and domestic containers to be transported by rail between the Hampton Roads region of Virginia and locations in the Midwest by increasing tunnel clearances and modifying other overhead obstructions in western Virginia, West Virginia, and through to Columbus, Ohio.</p>	<p><b>Background:</b> The Project is described twice in Public Law 109-59, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). At Section 1301(m)(2) it is described as: "Heartland Corridor Project including multiple intermodal facility improvements and improvements to facilitate the movement of intermodal freight from VA to OH." At Section 1702, Project No. 5072, it is described as: "Double stack clearance of tunnels on the Norfolk and Western Mainline in Virginia located on the Heartland Corridor."</p>
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Critical Issues:

Construction Costs

Budget/Costs Status: The project continues to progress as NS makes the necessary adjustments to control the project budget. Working with the construction management team and the contractors performing the work, NS has tailored some of the construction requirements to help maximize efficiency and reduce costs while maintaining quality and safety standards. While steps are being taken to keep the project within budget, the reality is that construction costs have increased significantly over the past few years. NS is developing a revised project estimate that will be presented to the NS Board of Directors in November. This revised budget will be incorporated into the next quarterly report.

<b>Federal Participation</b>							
Location	January - 07 Baseline Budget	Estimate to Complete	Expended to Date (9/30/08)	Federal Share (Up to 80%)	Federal \$ Expended (9/30/08)	Total Fed \$ Available	Federal \$ Remaining
VA	17,465,826	17,432,826	11,093,585	4,409,724	2,206,552	4,409,724	2,203,172
WV	127,804,875	127,045,875	32,668,347	26,134,677	18,816,413	78,958,607	60,142,194
FHWA/ States	1,000,000	1,000,000	612,342	612,342	612,342	1,000,000	387,658
Subtotal	146,270,701	145,478,701	44,374,274	31,156,743	21,635,307	84,368,331	62,733,024
<b>No Federal Participation</b>							
VA	3,024,314	2,925,314	2,291,142				
OH	1,103,968	1,248,968	1,037,606				
KY, WV, & Misc	9,284,288	10,293,467	1,436,704				
Subtotal	13,412,570	14,467,749	4,765,452				
<b>Total</b>	<b>159,683,271</b>	<b>159,946,450</b>	<b>49,139,726</b>				

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Reasons for difference between Baseline Budget and Estimate to Complete:

4/19/07 - \$1,108,179 was removed on a prorated basis from both the VA and WV federal participating and WV non-participating rows. This amount was for the planning work completed prior to the MOA and is now included in the Misc. amount. This was done to better correspond with Norfolk Southern's project accounts. Estimate to Complete total is \$263,179 higher than the January 2007 baseline due to higher actual costs for planning and higher estimates for the preliminary engineering for the Ohio bridge work.

Work Completed:

- ✓ *Project Funding:* In a Letter of Authorization from EFLHD dated July 11, 2008, the funds authorized under Section 1702 were increase by \$924,000 which increases the amount authorized for all activities in Virginia to \$3,561,024. These funds represent the Federal funds available at this time.

In a Letters of Authorization from EFLHD dated August 6, 2008 and August 11, 2008, the funds authorized under Section 1301 were increase by \$1,786,221 and \$9,207,221 respectively. These two authorizations increase the amount authorized for all activity in West Virginia to \$58,265,464. These funds represent the Federal share, capped at 80%, of the approved work in West Virginia.

In a Letter of Authorization dated June 5, 2008, the West Virginia Department of Transportation was authorized funds not to exceed \$140,000 for engineering expenses related to the Heartland Corridor.

- ✓ *Preliminary Engineering:* Final plans and estimates were completed by the Railroad on August 1, 2008 for Welch Tunnel. Final plans and estimates were completed on August 5, 2008 for the Investigative Probing Program to be completed at Glen Alum, Hatfield Main #2, Williamson, Big Sandy No. 1, Big Sandy No. 3, and Big Sandy No. 4 Tunnels. Final plans and estimates were completed on September 16, 2008 for West Vivian, Big Four No. 1, and Big Four No. 2 Tunnels. Final plans and estimates were completed on September 18, 2008 for Cooper Tunnel.
- ✓ *Contractor Pre-Qualification:* The selection panel reviewed the qualification statements for RFPQ 8 on August 25, 2008. Three contractors submitted qualification statements in response to RFPQ #8 and all were determined to be qualified.
- ✓ *Ohio Work:* All clearance work in Ohio has been completed.

Work-In-Progress:

- *Project Funding:* On October 28, 2008 EFLHD received from Federal Lands Highway Headquarters an allocation of the prior year carryover balance for the Section 1301 funds. There was no carryover balance for the Section 1702 funds. FY 2009 is the final year for the distribution of funds that were included in SAFETEA-LU.

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- *Preliminary Engineering:* HMM will complete the final designs for the remaining tunnels upon completion of the Investigative Probing Program (IPP) project. The IPP project will provide the data that HMM needs to prepare final construction plans tailored to meet the specific ground conditions in each tunnel.
- *Tunnel Construction:* The tunnel work at Cowan Tunnel in Virginia has been completed. The remaining work includes track-work to be completed by the Railroad which is scheduled for mid November. Once the work at Cowan is finished, the clearance work in Virginia will be complete.

Construction is in-progress at Vaughan, Roderfield, Laurel, and Gordon Tunnels in West Virginia. Current construction activities consist of sidewall and crown grouting, drilling and installing sidewall and roof bolts, liner removal notching, and portal work. Work is approximately 40% complete.

Construction is in-progress at Twin Branch 1 & 2 and Antler 1 & 2 Tunnels in West Virginia. Current construction activities include sidewall and crown grouting, drilling and installing sidewall bolts, pre-drilling roof bolts, liner removal, and portal work. Liner removal at Antler 2 is complete and is underway at Antler 1. Work is approximately 40% complete.

Construction is in-progress at Hemphill 1 & 2 Tunnels in WV. Current construction activities include ground classification, grouting, and side-wall bolting. Work is approximately 10% complete.

Polivka International Company, Inc. was the low bidder for the track relocation work at Big Sandy No. 2 Tunnel in WV. A contract was awarded on September 3, 2008 for \$226,733.24. Work is scheduled to start October 30, 2008.

RJ Corman was the low bidder for Welch Tunnel in WV. A contract was awarded on September 19, 2008 for \$9,493,434.55. The Contractor started drilling for the IPP on October 27, 2008.

- *Bridge Construction:* A contract for steel truss modifications on bridges near Maybeury, Farm, and Sprigg, WV was awarded to L.C. Whitford Company, Inc. on September 3, 2008 for \$210,920.00. Work is scheduled to begin in November 2008.
- *Historical Preservation:* TRC Solutions has completed the field work for the cultural resource documentation. Documentation has been submitted to the WV, VA, KY and OH SHPOs. TRC is currently working on the text for historical markers and signing to be installed as agreed to in the Memorandum of Agreement.
- *Heartland Corridor Working Group:* The West Virginia Public Port Authority is working to set a date for the next meeting of the Working Group. This meeting will provide an opportunity to provide progress reports on the intermodal terminals in Virginia, West Virginia, and Ohio in addition to the Clearance Project.

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Contracts:

Preliminary Engineering: Hatch Mott MacDonald (NS)

Construction Engineering: STV / Ralph Whitehead Associates (NS)

Cultural Resource Documentation: TRC Solutions (EFLHD)

Cowan Tunnel: Johnson Western Gunitite (NS)

Vaughan, Roderfield, Laurel, and Gordon Tunnels: Johnson Western Gunitite (NS)

Antler 1 & 2 and Twin Branch 1 & 2 Tunnels: LRL Construction (NS)

Hemphill 1 & 2 Tunnels: R.J. Corman (NS)

Maybeury, Farm, and Sprigg Bridges: L.C. Whitford Co. (NS)

Big Sandy No. 2 Polivka International Co. (NS)

Welch Tunnel R.J. Corman (NS)

Project Schedule/Status: The Clearance Project is on schedule for completion in the summer of 2010. Norfolk Southern continues to review the schedule and has made adjustments to tunnel sequencing to ensure that both the project and train operations are maximized. One of the major adjustments was to develop a separate contract for the Investigative and Probing Program for the remaining tunnels. Track time that has been provided for the adjacent construction projects will be utilized to complete the IPP work. Getting the IPP completed earlier in the process will allow the contractor to begin working on the tunnel upon award of the contract.

Milestones:

Activity	Planned	Actual
Advertisement of PE Contract:		June 29, 2006
PE Pre-Bid Meeting:		July 6, 2006
MOA w/ States Signed		July 11, 2006
PE Selection Panel		August 2, 2006
MOA w/ Railroad Signed		August 8, 2006
Award of PE Contract		Sep 29, 2006
EFLHD Receipt of FY 05 & 06 Funding	Nov-06	Feb 1, 2007; Mar 27, 2007
Advertisement of CE Contract:	Dec-06	Feb 1, 2007

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EFLHD Receipt of FY07 Funding	Jan-07	Jun 6, 2007; Oct 25, 2007
Award of CE Contract	Mar-07	April 10, 2007
Completion of NEPA Document	Apr-07	June 13, 2007
EFLHD Receipt of FY08 Funding	Jan-08	Apr 7, 2008; Jul 2, 2008
EFLHD Receipt of FY 09 Funding	Jan-09	
<b>Ohio Bridges</b>		
Final Design Completed	Apr-07	July 20, 2007
Award of Construction Contract	Jul-07	November 12, 2007
Completion of Construction	Dec-07	September 30, 2008
<b>Cowan Tunnel</b>		
70% Design Completed	Mar-07	March 5, 2007
Final Design Completed	Apr-07	June 20, 2007
Award of Construction Contract	Jul-07	September 18, 2007
Completion of Construction	Apr-08	
<b>Eggleston 1&amp;2, Pembroke (by NS forces)</b>		
Final Design Completed	Jun-07	Dec-2007
Completion of Construction	Dec-07	Apr-2008
<b>Roderfield, Laurel, Gordon, Vaughan</b>		
70% Design Completed	Apr-07	March 5, 2007
Final Design Completed	May-07	June 20, 2007
Award of Construction Contract	Aug-07	November 28, 2007
Completion of Construction	Jul-08	
<b>Antler 1&amp;2, Twin Branch 1&amp;2</b>		
70% Design Completed	Sep-07	April 20, 2007
Final Design Completed	Nov-07	August 30, 2007
Award of Construction Contract	Feb-08	January 21, 2008
Completion of Construction	Jul-09	
<b>Cooper</b>		
70% Design Completed	Apr-07	March 5, 2007
Final Design Completed	May-07	September 18, 2008
Award of Construction Contract	Aug-07	
Completion of Construction	Apr-08	
<b>Hemphill 1 &amp; 2 Tunnels</b>		
70% Design Completed	Sep-07	August 2007
Final Design Completed	Nov-07	March 10, 2008
Award of Construction Contract	Feb-08	May 13, 2008
Completion of Construction	Jul-09	
<b>Maybeury, Farm, and Sprigg Bridges</b>		
70% Design Completed	Sep-07	August 2007
Final Design Completed	Nov-07	May 5, 2008
Award of Construction Contract	Feb-08	September 3, 2008
Completion of Construction	Jul-09	
<b>Bid Sandy #2</b>		
70% Design Completed	Sep-07	August 2007
Final Design Completed	Nov-07	April 4, 2008

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Award of Construction Contract	Feb-08	September 3, 2008
Completion of Construction	Jul-09	
<b>Hugers Tunnels</b>		
70% Design Completed	Sep-07	August 2007
Final Design Completed	Nov-07	June 2, 2008
Completion of Construction	Jul-09	October 20, 2008
<b>Welch Tunnel</b>		
70% Design Completed	Sep-07	August 2007
Final Design Completed	Nov-07	August 5, 2008
Award of Construction Contract	Feb-08	September 19, 2008
Completion of Construction	Jul-09	
<b>Slide Fences</b>		
70% Design Completed	Sep-07	August 2007
Final Design Completed	Nov-07	June 2, 2008
Completion of Construction	Jul-09	
<b>West Vivian, Big Four No. 1, and Big Four No. 2 Tunnels</b>		
70% Design Completed	Sep-07	August 2007
Final Design Completed	Nov-07	September 16, 2008
Award of Construction Contract	Feb-08	
Completion of Construction	Jul-09	
<b>2009 Tunnels and Bridges</b>		
70% Design Completed	Jul-08	August 2007
Final Design Completed	Sep-08	
Award of Construction Contract	Dec-08	
Completion of Construction	Jun-10	

**Conclusion:** The project is on schedule with contracts being awarded, additional solicitations being issued for construction bids, and designs being completed. Lessons learned during the early contracts have been utilized to refine the designs of the remaining tunnels. There continues to be good cooperation between all parties involved.

<i>Contacts:</i>	
<i>Project Director</i>	<i>Project Manager</i>
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<i>Project Web Site:</i> <a href="http://www.efl.fhwa.dot.gov/projects-heartland-corridor.aspx">www.efl.fhwa.dot.gov/projects-heartland-corridor.aspx</a>	