



COMMONWEALTH of VIRGINIA

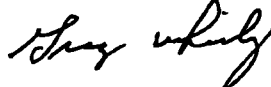
DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Gregory A. Whirley
Commissioner

August 16, 2010

MEMORANDUM

To: The Honorable Sean T. Connaughton
Secretary of Transportation

From: Gregory A. Whirley 
Commissioner

Subject: Virginia Transportation Research Council Evaluation

The 2010 General Assembly called for an independent review of the Virginia Transportation Research Council (VTRC). The purpose of this review was to identify opportunities and recommendations to transform VTRC into a champion for innovation, an organization within the Transportation Secretariat that will identify, research, test and implement creative solutions that will fuel Virginia's multi-modal transportation program to the become the best in the country. Through innovation, planning, and leading edge technology Virginia can improve its multi-modal transportation programs to better serve the traveling public, encourage economic development and create jobs.

The independent review was conducted by Turner-Fairbank Highway Research Center, a division of the Federal Highway Administration and B. T. Harder, Inc. The report contains six major focus areas. These focus areas are presented below along with selected action items that I plan to implement.

- ***Enhance the Advisory Committee Process and Product.*** Advisory Committees play a strong and vital role in identifying innovative ideas including the better use of technology, innovative design practices, better / cheaper / stronger materials, and planning from a multi modal perspective. Currently, there are nine Research Advisory Committees. **I propose to improve the Advisory Committee process by implementing the following:**
 - Strengthen the membership of the committees by ensuring that each committee is comprised of strong professionals from the agency field units, various companies serving in the transportation field, leading universities in Virginia, and a chair person recognized as a strong subject matter expert.
 - Assign agency staff working in the field to a three to six month tour at the VTRC to work on specific research topics. This blends field experience with research to identify practical solutions.
 - Provide an incentive program / budget of \$10,000,000 as an incentive for implementation and for aligning research with business need. This encourages

divisions and districts to identify projects that may not have been identified previously because of a lack of funding. We will continue to aggressively seek research grants.

- Establish a standard approach to advisory committee meetings, making sure that each advisory committee has a clear focus, a formal review and vote on all research recommendations.
 - Implement other review measures to monitor and report on the effectiveness of the Advisory Committees in implementing the research results.
 - Establish an annual Research Program Review between the Director of Research, the chairs of the advisory committees, and the Commissioner in advance of initiating each fiscal year program. The purpose of the review is to provide the Commissioner with direct input into the program and to create a bias toward innovation in the agency.
- ***Realize More Effective Implementation of Research Results.*** The review indicates that VTRC has a good record of implementing research results. However, more can be done to improve this record by having a formal and rigorous implementation process. **I propose to improve the implementation of research results by implementing the following:**
 - Establish a comprehensive, output oriented definition of what constitutes “implementation of research results”.
 - Develop an “Implementation Report” from the Director of Research to the executive in charge of the business area. This report will identify the research project recommendations, potential benefits, the person or group who needs to take action, and an approval or disapproval from the executive to move forward with implementation.
 - Create pilot programs to test the research results where the implementation affects the entire agency. Upon successful completion of the pilot, the Commissioner will take a formal action to put the innovation, process changes, new specification or other changes into practice.
 - Refocus a Research Council staff person to become an Implementation Program Manager whose sole focus is on working with field and central office business units to implement the results from research.
 - Other measures will be put into place to track and report on the status of the implementation.
 - ***Maximize the Value of Academic Research Capabilities and Partnerships with Universities.*** VTRC outsources approximately 50% of all research to universities. This is a healthy and effective balance because it effectively increases capacity while at the same time providing VDOT with a reliable source of highly qualified internal technical support in numerous areas. **I propose to strengthen the VTRC relationship with**

universities and “grow the size of the transportation research funding pie” for Virginia by implementing the following:

- Implement an aggressive “outreach program” with surrounding universities in addition to UVA and Virginia Tech such as George Mason University, James Madison University, George Washington University, Old Dominion University, Virginia Commonwealth University, Virginia State University, William and Mary and others to develop “niche expertise areas” and cooperative agreements to seek grant funding for transportation research in multiple areas including policy, transit, rail and environmental. This will create opportunities for VTRC to expand support for all agencies of the Transportation Secretariat.
 - Develop a formal cooperative agreement between VTRC, Virginia Tech and VTTI similar to the agreement with the University of Virginia. Such an agreement will formalize the already strong, yet informal, collaboration that has been growing over the past several years and offer opportunities for VTRC and VTTI to significantly ramp up their ability to successfully attract research grants of significant size and value to VDOT and the Commonwealth. Such a partnership could result in a stronger more effective transportation research program.
 - Re-emphasize and expand the VTRC graduate assistantship program including universities in addition to UVA and Virginia Tech as a way of strengthening the pool of potential future transportation professionals at VDOT.
 - Partner with universities to take full advantage of the potential to augment VTRC staff with professional staff and wage employees funded through the use of jointly acquired grants.
- ***Renew Focus on Communication of Research Expertise and Implementation Successes.*** There are close links between communicating research results and implementation success. ***I propose to strengthen the communication and innovation aspects of the research program by implementing the following:***
 - Establish a new name for the VTRC to reflect the role it plays in innovation and implementation. This new name will be: ***The Virginia Transportation Innovation Center.***
 - Reinststitute the VTRC Annual Report and distribute in both hard copy and electronically to VDOT, industry, Chairs of Senate and House Transportation, the General Assembly Joint Committee on Technology and Science, and others who are stakeholders in developing innovation for transportation in the Commonwealth.
 - Publish e-newsletters to all VDOT employees regarding the research program
 - Publish “implementation success and benefit briefs” and distribute to VDOT field offices and operating divisions
 - Commit to regular and periodic research results and implementation briefings at the executive level staff meetings and to encourage research program status reports in association meetings such as the annual Virginia Transportation Construction Alliance, Asphalt Association, and Concrete Association Meetings.

- ***Retain the collaborative VDOT Research Business Model.*** The VDOT business model of having internal research staff, along with a balanced outsourcing program with universities is delivering high-value, efficient, quality research. In addition, VTRC has been effective in attracting grant funding through effective university partnerships, significantly leveraging VDOT funds devoted to research. ***I agree with the evaluation report and propose to retain this business approach for conducting research.***

- ***Ensure Organizational Strength.*** VTRC is effective in administering the VDOT research program. However, the Blueprint decision to include the education and training function (called the Center for Learning Services) as part of the Research Council diverts attention of the Director of Research from primary research functions. In addition, the lack of a permanently filled Director of Research impacts the stability of the organization, discourages staff prepared to advance, and tends to dampen the innovative culture. Also, having VTRC report to the Commissioner rather than to a direct report of the Commissioner will demonstrate the importance of research to the overall transportation program. ***I propose to take the following steps regarding organization and administration of the Research Council:***
 - Return the Center for Learning Services to the Chief of Administration
 - Have the VTRC report to the Commissioner
 - Advertise for and fill the Director of the Research Council position

In closing, VTRC is a strong and vital resource for the Virginia Department of Transportation and the Commonwealth. The evaluation report along with the actions items identified will only serve to make the Research Council stronger.