



# Research and Technology REVIEW

Volume 22 Issue 4

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## Research, Development and Technology (RD&T) Program Development for Federal Fiscal Year 2014 (FFY2014)

We would like to thank all of you at NDOT, the universities, and other participants for your active engagement in the annual Nevada DOT Research, Development, and Technology Transfer program development process.

We are pleased to announce that the Research Management Committee (RMC) met on July 15, 2013 and approved the following eight research projects for Federal FY 2014 starting in October, 2013. **Please contact us if you need any additional information or have concerns. Thanks again for your help with this annual RDT program development effort.**

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Proposal Title	Selected Performing Agency	NDOT Champions	Project Costs
<i>Streamlining Hydrologic Prediction Processes using New and More Accurate Techniques and Methods</i>	Kimley Horn/Vieux & Associates, Inc.	Brian Wilson and James Moore (Hydraulics Sections)	\$199,988
<i>Calibration of Resistance Factors for LRFD Design of Axially Loaded Drilled Shafts in Las Vegas Valley</i>	University of Nevada, Reno	Mike Griswold, Abbas Bafghi, and Ron Siegel (Materials Section)	\$194,000
<i>Mechanistic-Based Pavement Damage and Associated Cost from Oversize and Overweight Vehicles in Nevada</i>	University of Nevada, Reno	Randy Travis (Traffic Information Section), Jeffrey Richter (Admin Services) and Michele Maher (Materials Section)	\$193,411
<i>Evaluation of the Benefits of Open Graded Friction Course (OGFC) on NDOT Category-3 Roadways</i>	National Center for Asphalt Technology at Auburn University	Yathi Yatheepan (Materials Section)	\$200,000
<i>Traffic Prediction and Responses through Data Mining and Data Stream Processing</i>	Applied Engineering Management Corporation (AEMC)/Desert Research Institute (DRI)	Ish Garza (Traffic Ops. Section)	\$200,000* *Some UTC funding maybe considered for a portion of this project
<i>Investigating Decision-Making Processes that contribute to Impaired Driving</i>	University of Nevada, Reno	Ken Mammen (Safety Engrn. Section)	\$57,053
<i>Evaluation of New Innovations in Rubber Modified Asphalt Binders and Rubberized Asphalt Mixes for Nevada DOT</i>	University of Nevada, Las Vegas	Reid Kaiser (Materials Section)	\$374,520
<i>Comparing the Direct Costs and Infrastructure Implications of Anti-icing Strategies</i>	Western Transportation Institute Montana State University (WTI)	Mylinh Lidder (Maintenance & Asset Management Section) and Troy Martin (Structures Section)	\$181,926



## Nevada LTAP

By: Jim Nichols



### Welcome!

To the Nevada LTAP Center's new Program Manager, Heather Lara, a graduate of the Reynolds School of Journalism at the University of Nevada, Reno. While she was obtaining her undergraduate degree, Heather worked at the LTAP center at UNR and helped run the flagger certification program for NDOT.

### Upcoming LTAP Training Courses

Many local agencies in states are required to take on the responsibility for administering construction of roadway projects in rural area having populations less than 50,000 and projects costing \$2 million or less. Although Nevada has what is considered to be an urban population, it is because the population is centered in two urban areas, Las Vegas and Reno. The truth of the matter is that Nevada

has vast sparsely populated areas with widely spaced infrastructure construction projects which nevertheless need monitoring and oversight. The National Cooperative Highway Research Program (NCHRP) has just published Research Digest 381 titled *Guidebook for Construction Management Practices for Rural Projects*.

The LTAP (T<sup>2</sup>) Center is developing a training course based on this NCHRP report but will be tailored to Nevada's situation. The course will present information on:

- Contract Administration • Cost Estimating
- Inspection • Scheduling
- Quality Assurance and Control
- Construction Safety • Claims and Disputes

The course will be targeted to project managers and senior field personnel of local and regional transportation agencies who have not been exposed to construction management but will begin having responsibilities for implementing and administering roadway construction projects. The course is expected to be completed and ready for presentation in the fall of this year.

Truckee Meadows Community College (TMCC) has signed the contract to conduct the trainings for FFY 2013. For class notifications and newsletter updates, please contact the Nevada LTAP Center Team:

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**NDOT Product Evaluation  
Product Evaluation Program  
By: Heather Manzo**

An AASHTO / NTPEP (National Transportation Product Evaluation Program) workshop was held on Friday August 9, 2013 at NDOT Headquarters with video links to District I, II and III. The workshop was conducted by NTPEP representatives and was very well attended by NDOT employees. Thank you to all who attended!

If you are interested in learning more about what NTPEP has to offer, please let Heather know and she will add your name to the list. For more information about NTPEP please visit their site at <http://www.ntpep.org/>

The Product Evaluation Committee met on Tuesday September 10. Evaluators are rapidly processing applications for product evaluation as they receive them. Mark your calendars! The next Product Evaluation Committee meeting is scheduled for December 10, 2013.

**Library Corner  
By: Mitch Ison**

**Five Great Ways to Stay Informed**

Having trouble keeping up with the daily onslaught of transportation news? These are five trustworthy sources you might want to take a look at. All offer regular email updates. They are quick, reliable and free! What more could you want?

*The Transportationist* <http://transportationist.org/>

*LA Transportation Headlines* <http://headlines.metroprimaryresources.info/>

*TRB E-Newsletter* <http://www.trb.org/Publications/PubsTRBENewsletter.aspx>

*AASHTO Journal and the Daily Transportation Update* <http://news.transportation.org/>

*US DOT Newsletters* <https://public.govdelivery.com/accounts/USDOT/subscriber/new>

**Hmm. Sounds interesting.**

Here are two recent books discussing the development of the US Interstate system that just might keep you up at night. Of course they are both available at the Library.



*The Big Roads: The Untold Story of the Engineers, Visionaries, and Trailblazers Who Created the American Superhighways* by Earl Swift presents the surprising history of how we got from dirt tracks to expressways in the course of a generation, bringing to light the men and women who created these essential highways as well as the critics and citizens who questioned their expansion.

**Continued on page 4**



*Interstate: Highway Politics and Policy Since 1939* (3rd edition) by Mark H. Rose and Raymond Mohl brings the story of the Interstates into the twenty-first century. From embattled highway builders to urban blight to freeway revolts, this book makes it clear that there is a lot more to building roads than just laying pavement.

Yeah it's some heavy stuff, but I'm sure you're up to it.

### A Real Eye-Opener

Did you know engineers are working on converting coffee grounds into biofuels? (Hey, why didn't I think of that?) For the full story check out this *Better Roads* article: <http://www.betterroads.com/coffee-could-fuel-future-cars/>

“For complete details about exam materials, news sites, fun new reading, or anything else library related, please visit the Library’s website at [http://www.nevadadot.com/About\\_NDOT/NDOT\\_Divisions/Planning/Research/Research.aspx](http://www.nevadadot.com/About_NDOT/NDOT_Divisions/Planning/Research/Research.aspx) or SharePoint at <http://shptsrv1/803/NDOTLibrary/Wiki%20Pages/Home.aspx>. You may also contact the Librarian, Mitch Ison, at 777-889-7895 / [mison@dot.state.nv.us](mailto:mison@dot.state.nv.us).”

**Fun Fact**  
By: Chris Akinola

### The One Thing Successful People Never Do

Bill Gates -co-founder and chairman of Microsoft set up a business called Traf-O-Data. The partnership between him, Paul Allen and Paul Gilbert was based on a good idea (to read data from roadway traffic counters and create automated reports on traffic flows) but a flawed business model that left the company with few customers. The company ran up losses between 1974 and 1980 before it was closed. However, Bill Gates and Paul Allen took what they learned and avoided those mistakes when they created the Microsoft empire.



The NDOT Research Section administers the NDOT’s research, development and technology transfer program and serves as the “clearing-house” for product evaluations.

**Research and Technology Review is published quarterly by the NDOT Research Section.** Its purpose is to provide the latest information on the NDOT research activities including product information and other pertinent research topics.

If you have comments or need additional information regarding any of the topics discussed in this issue, please contact the Research Section. Edited by: Chris Akinola.

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