

# The Center Line

North Dakota Local Technical Assistance Program • Upper Great Plains Transportation Institute • North Dakota State University

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Summer 2009

## SPRING FLOODS IN NORTH DAKOTA

by *Vernon Monger*

North Dakota had a long winter with heavy snow coming in late October and continuing throughout the season. Record snowfalls were recorded with Bismarck setting an all time record with 100 inches, one inch short of the record. A snow emergency was declared in many North Dakota counties. Spring thaws caused flood damage in many areas. As a result, disaster emergency was declared in 48 of the 53 counties. The Federal Emergency Management Agency (FEMA) is currently assessing damages in the area.

Record snowfalls created major problems for local road and street departments. Many of the agencies required contractor assistance to keep the roads open. Spring runoff created flooding in many areas. Volunteer groups and individuals provided numerous hours of assistance in sandbagging for levee protection. Flood damage occurred in all the state's major drainage basins.

The flat Red River basin had major flooding, with Fargo being at the brink of evacuation, and many of the smaller communities also requiring levee protection. The Sheyenne River basin had similar flood damage which prompted community evacuations. Valley City had major drinking water and sewer problems because of the high water flows of the Sheyenne River and an all-city evacuation order was issued for several days. The James River basin, with overflowing of the Jamestown dam, caused major problems for the city of Jamestown and communities downstream. Devils Lake and Stump Lake, in the Devils Lake basin, had record-high water elevations, creating additional flooding. The Missouri River at Bismarck had the unusual situation of an ice jam, forcing residents in south Bismarck to evacuate. The situation had to be remedied by dynamiting the ice jam to get the river flowing.

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Near LaMoure, N.D.



Hazen Bridge

(Spring Floods continued)

Portions of Linton were flooded by Beaver Creek runoff, forcing evacuation of residents and considerable damage to many homes. Many other communities were also impacted by either evacuation for safety reasons or had levees built to hold back the floodwaters.

This has created major problems for the transportation infrastructure in the state. With the high water flows, levees had to be built around many communities. Bridge and culvert washouts occurred, with major erosion, and aggregate was washed off many gravel roadways. Preliminary damage assessment by FEMA for the local road system was approximately \$16 million with an additional assessment of \$11 million for protective measures and utility systems. FEMA assessment of local roads and communities is ongoing.

The federal aid road system damage assessment, state and county, is managed by the Department of Transportation and an ongoing assessment is being done. Approximately 240 sites have been identified for damage assessment. Currently, half of the sites have been inspected with an estimated damage cost of \$29 million. Repairs for these routes will be funded by emergency relief (ER) funds through the Federal Highway Administration.



The mail must go.



Pembina, N.D.



Sheridan County, N.D.



I-94 near Steel, ND

## JON MILL – NORTH DAKOTA HIGHWAY HALL OF HONOR RECIPIENT

Jon Mill, recently retired Burleigh County Engineer, was inducted into the North Dakota Highway Hall of Honor on June 22, 2009, recognizing his many contributions to the transportation industry.

Following his graduation from Montana State University with a Bachelor of Science in Civil Engineering, he began his career with the North Dakota Department of Transportation in 1970. He is a Registered Professional Engineer and also a Registered Land Surveyor. Jon became the Burleigh County Engineer in 1981.

Since 1981, Jon has served Burleigh County, the state and region in an exceptional manner. His conservative fiscal spending, budgeting, and project cost containment has allowed Burleigh County to keep pace with rapid economic development and vital transportation needs. Jon is considered one of the region's top transportation leaders and has been active in virtually every committee that involves transportation planning or related issues in our community, including the North Dakota Association of County Engineers, North Dakota Department of Transportation Research Advisory Committee, National Association of County Engineers, American Society of Highway Engineers, and a member of the North Dakota Society of Professional Land Surveyors.

Jon held the position of President for the North Dakota Association of County Engineers. Jon was honored with the County Engineer of the Year award from the North Dakota Association of County Engineers in 1989.

In addition, Jon served on the North Dakota Local Technical Assistance Program Advisory Committee since the program began. Jon has been a strong supporter of the program and has provided valuable advice and guidance to the NDLTAP staff. Through his experience and willingness to share his knowledge, Jon has contributed to a better workforce for all transportation related activities.



Jon Mill



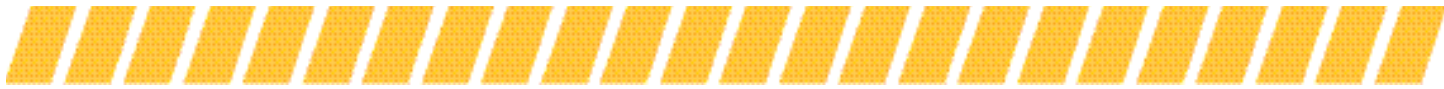
Jon Mill, Francis Ziegler- NDDOT Director



Jon Mill and his family

### Looking for your ideas and news articles

Contact Denise Brown at  
(701) 328-9855 or [denise.brown.1@ndsu.edu](mailto:denise.brown.1@ndsu.edu)  
to share your ideas and articles for upcoming editions of The Center Line.



## KEVIN FIELDSSEND - NEW NORTH DAKOTA LTAP ADVISORY BOARD MEMBER

Kevin Fieldsend has been with Ramsey County Road Department for the past 12 years. Kevin has been the Superintendent of Highways since the start of his employment.



Kevin graduated from high school in Park Rapids, MN. After graduation Kevin attended one year of auto body repair. Previous employment was with a Chevy dealership in Redfield, S.D. and Spink County highway department in South Dakota. He was the Assistant Highway Superintendent in Spink County for 10 years.

Kevin has been active in the NDLTAP Road Scholar for many years. He has accomplished Level III of the Road Scholar program. Kevin encourages his employees to participate in NDLTAP training programs.

## BRANT MALSAM - NEW NORTH DAKOTA LTAP ADVISORY BOARD MEMBER

Brant is a native of Sterling, N.D. Brant graduated from Bismarck High School and then attended two years of college at Bismarck Junior College. After attending college Brant was on active duty with the United States Army for two years. After his honorable discharge he attended NDSU and received his B.S. degree in Civil Engineering. While attending NDSU he served in the ND Army National Guard.



Brant has been a consultant for 30 years. He is currently employed with Kadramas, Lee and Jackson as the Director of Project Management.

Brant and his wife Nancy have two children, and one grandson. They have resided in Bismarck for the past 30 years. Brant is an avid golfer and also a rum collector.

Brant is representing the consulting engineering industry in North Dakota on the NDLTAP advisory board. He is looking forward to assisting NDLTAP advance their mission.

## CURRENT NDLTAP ADVISORY BOARD MEMBERS

**Mark Berg** - City Traffic Engineer, Bismarck  
**Mike Grafsgaard** - City Engineer, Devils Lake  
**Wendell L. Meyer** - FHWA Division Administrator  
**Steve Busek** - FHWA Division Safety / Traffic Engineer

**Ron Horner** - Materials & Research Division  
**Blane Hoesel** - Local Government Division  
**Mark Verke** - ND Insurance Reserve Fund  
**Ron Wagner** - County Hwy Superintendent  
**Ken Yantes** - Township Representative



## NEW WORKSHOP TARGETS RURAL, LOCAL AND TRIBAL ROAD SURFACE MANAGERS AND ENGINEERS

by John McGowan

Working with the Local Technical Assistance Programs in Montana, North Dakota, South Dakota and Wyoming and two Tribal Technical Assistance Programs in the region, the Mountain-Plains Consortium at North Dakota State University (see [www.mountain-plains.org](http://www.mountain-plains.org)) is developing a workshop on roadway surface management. The workshop is scheduled for Nov. 2-3 and is free to all rural, local and tribal managers and engineers responsible for the maintenance of their jurisdiction's roadway surfaces. The work is supported in part by the Federal Highway Administration's Office of Asset Management.

There is a growing imbalance between increasing road capacity and the pressures on available resources to maintain highway systems in every region of the United States. Strategically allocating projects and activities to preserve the highway infrastructure is one way to help optimize use of the limited resources, but this process is not well understood, particularly among small urban and rural managers and engineers. Roadway surface management is the decision-making process that addresses the strategic needs on a network basis to properly balance the what, when and how of preserving roadway segments – both paved and unpaved.

Roadway surface management has been practiced in varying degrees since Roman times, but only in modern times, since 1956 and the beginning of the American Association of State Highway (now Transportation) Officials road tests, has the science been evolving rapidly. In more recent years federal requirements coupled with desire and need on the part of state engineers to more wisely maintain their highway systems has resulted in all 50 states and the District of Columbia having some form of pavement management in place. However, with many more decisions falling to county, small urban, rural and tribal governmental entities, it has become essential that roadway surface management be practiced at these levels as well. The level of understanding, awareness and practice of roadway surface management in these entities is uneven and, perhaps, even nonexistent.

The workshop seeks to change that. By breaking the workshop down into three stand-alone segments, the workshop can address the needs of all managers and engineers who are doing at least one of the following:

- Making road, street, and bridge funding decisions as an elected or non-elected official
- Making agency-wide planning and funding decisions as an elected or non-elected official
- Presenting budgets to political bodies, such as county commissions or town councils

## COMING EVENTS

### ND LTAP/TLN EVENTS

#### **Business Writing Today -TLN**

Oct. 14, 2009

#### **Region Local Road Conference - Rapid City, S.D.**

Oct. 20-22, 2009

[http://www.ndltap.org/events/downloads/2009\\_10LocalRoadConference.pdf](http://www.ndltap.org/events/downloads/2009_10LocalRoadConference.pdf)

Please register with Denise Brown for the bus trip to Rapid City.

#### **Winter Roads Maintenance -NDLTAP**

Oct. 27 - Lake Region College,  
Devils Lake, ND

Oct. 28 - Kline's Cafe, Oakes, ND

#### **Roadway Management - TLN**

Nov. 2-3, 2009 (2 day course)

#### **Low Cost Safety Improvements - TLN**

Nov. 4, 2009

#### **Vegetation Management & Invasive Weeds - TLN**

Nov. 18, 2009

#### **Flexible Leader - TLN**

Nov. 19, 2009

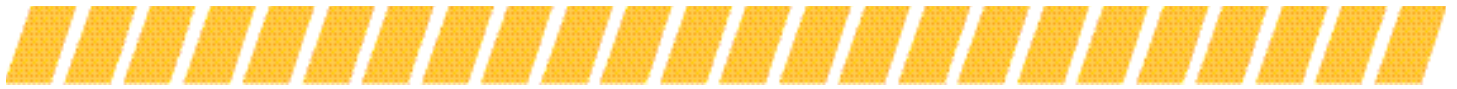
**Please visit the NDLTAP website  
for a current workshop listings  
<http://www.ndltap.org/>**

## OTHER EVENTS

#### **APWA Click, Listen & Learn**

<http://www.apwa.net/education/CLL>

New workshop targets rural continued on page 6



New workshop targets rural (continued)

- Managing a road or street network
- Advocating expenditures on a road or street network
- Prioritizing construction and rehabilitation projects
- Seeking funding for major projects
- Directing and overseeing the day-to-day activities of road or street crews
- Prioritizing road or street maintenance activities
- Preparing road or street maintenance budgets
- Purchasing materials, supplies, and equipment
- Setting up, collecting, and/or maintaining roadway-related inventory systems

The sessions will be offered sequentially in the morning and afternoon of Monday, Nov. 2, and the morning of Tuesday, Nov. 3. By paring subject- matter experts with knowledgeable practitioners and inviting dialogue with the workshop attendees, the sessions will address:

**Session 1: Roadway Management Basics**

This session is for those who want to develop a basic understanding of the principles and practices of roadway management. It is for those who wish to understand both the potential benefits of roadway management and the basic processes necessary for a roadway management system to be successful. This session is most appropriate for individuals with little or no knowledge about what a roadway inventory or management system can do for them.

**Session 2: Improving Your Roadway Management Program**

This session is for those who have some experience with roadway management and inventories or who have taken Session 1 and who wish to learn how to get more out of their current inventory, cost tracking, and management practices. It is targeted towards those who wish to learn how to prioritize and better focus their cost tracking, inventorying, and roadway management practices to provide better and more useful information at both the project and the network levels. This session is most appropriate for individuals having some basic knowledge of roadway asset inventories and basic use of the data for managing their roadways, as well as for those who wish to learn how to get more out of their existing systems.

**Session 3: Taking Roadway Management to the Next Level**

This session is for those who have an established roadway/asset management system or who have attended Session 2 and who want to learn more advanced management practices, such as GIS and optimization procedures. Those attending this session will learn to use a roadway management system to make more informed maintenance and rehabilitation decisions based on historical and other data. They will learn techniques for upgrading existing management systems and applying more advanced analytical techniques. This session is most appropriate for those with some roadway/asset management experience who wish to learn about additional roadway/asset management opportunities from both experts in the field and from their peers.

The course will be offered through the Transportation Learning Network (TLN), a distance learning partnership among organizations located in many sites in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming. Each site consists of in-room audio and video equipment, which receives and transmits live sound and picture. TLN also operates its own videoconferencing bridge providing system connectivity to many other sites.

Plan now to attend one, two or all three sessions of this workshop. Registration will open soon. If you would like additional information please contact the NDLTAP center.

# NDDOT TRANSPORTATION TECHNICIAN TRAINING PROGRAM

*by Jerome Horner*

The North Dakota Department of Transportation initiated a new classification series for the department's maintenance equipment operators, effective (July 2007). At the same time, the department initiated a training course for members of the new classification to afford them with a working knowledge in the area of construction inspection.

The training course, entitled "Introduction to Construction," was developed to provide the participants with instruction in the following courses of study: plan reading, math, materials, construction, inspection, and traffic control. After conducting four training sessions during the past 18 months, 121 NDDOT transportation technicians have enrolled and completed the course of instruction.

The training has come at a critical time, to meet the department's increased construction program, resulting from the increased funding experienced from the American Recovery and Reinvestment Act of 2009. Many of the trained transportation technicians have been assigned to a construction project and are obtaining actual experience in construction inspection.

The department is continuing its effort to provide training for the new transportation technicians. The next training session has been scheduled for Oct. 12, at Bismarck. The session will accommodate an additional 28 students from eight DOT districts.

The instruction is provided through a joint effort of UGPTI staff and NDDOT Staff.

## PUBLIC INPUT MEETINGS - ROUND II

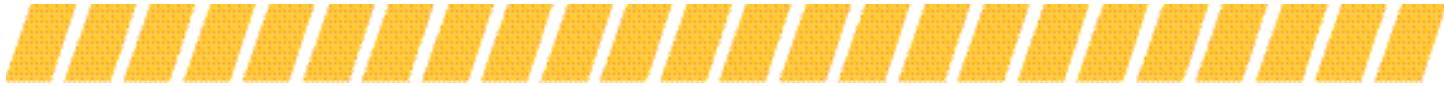
*by Jon Mielke*

In 2007, the Upper Great Plains Transportation Institute's advisory council asked staff to develop a program to encourage public participation in decision-making processes related to transportation infrastructure and transit. The directive resulted in a series of eight regional meetings and a state conference to share information about the condition of the transportation system and available funding and to solicit public input about the adequacy of existing systems and services. Staff members from the Institute's Local Technical Assistance Program (LTAP) played a major role in program planning and workshop presentations. Nearly 600 people attended staff compiled the corresponding findings and recommendation.



As a result of these meetings, an independent transportation coalition was created to pursue increased state funding for transportation. Governor Hoeven subsequently included funding increases in his Executive Budget and the 2009 Legislature increased related appropriations by nearly \$150 million. Funding increases benefited not only the state roadway system but also county, city, and township roads and local transit systems.

The Institute's advisory council has asked staff to undertake a similar public input process prior to the 2011 legislative session. Given the extensive needs facing North Dakota's roadway and transit systems and the demands that are placed on these systems by citizens, farmers, and businesss, it is vital that information be collected to determine what levels of service are required to meet future needs. It is expected that regional meetings will be held around the state in March of 2010. The public is encouraged to attend these meetings and to provide input concerning future needs and related funding requirements.



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