The Center Line

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

Vol. 25, No. 1 Fall 2008

DAVE LEVI RETIRES AS PROGRAM MANAGER FOR NDLTAP

by Gary Berreth, ND LTAP Director

In the past year and a half the NDLTAP program has undergone several changes, beginning with its office move from Fargo to Bismarck, diversifying its training delivery methods, expanding its client base, and hiring new staff.

Although these are just a few of the changes that have occurred, we feel North Dakota's LTAP program has made progress in improving the transfer of transportation technology and training to the North Dakota transportation community. Much of this progress can be attributed to the guidance and support offered from the LTAP Advisory Board, Upper Great Plains Transportation Institute, NDSU, and to the NDLTAP staff.

As we all know, changes in NDLTAP, as in life, will continue to occur. Now another change has occurred in the NDLTAP office. Dave Levi has retired from his position as NDLTAP Program Manager as of September 12, 2008.

Dave has been a tremendous asset to the NDLTAP program. Much of the success of the program has been a direct result of his efforts. Although his contributions to the program will be missed, we are envious and happy for him and Bernie to now have the opportunity to travel and pursue their hobbies at their leisure. Our appreciation goes out to Dave for all the contributions he has made to the NDLTAP program. We want to wish both Dave and Bernie the best on their future.

In This Issue

MOUNTRAIL COUNTY OIL DEVELOPMENT IMPACT

By Vernon Monger

We recently made a field trip to Mountrail County to view the impact oil and gas development is having on the road systems in the county. Scott Stammen, county road superintendent, gave us a tour of the area. "ROCKIN THE BAKKEN," as it is called locally, is the Bakken oil formation approximately 13,000 feet below the surface and located in western North Dakota, eastern Montana, and extending into Canada. While this energy activity is taking place in the entire area, we reviewed what is taking place in two townships in the area south and east of Stanley. Most of this activity has taken place in the last year.

There are approximately 88 oil drilling rigs in the state, with 25 of those in Mountrail County and most of those working in the area south of Stanley. This activity involves having major truck traffic moving heavy equipment in and out of the area, as well as transporting the crude oil being processed over the roadway system until pipelines can be constructed.


Scott Stammen
County Road Superintendent

Stammen says this is creating a major impact to their local road system. The county maintains approximately 1,400 miles of roadway, with 100 miles being asphalt paving. The additional maintenance required because of the heavy traffic is creating heavy work loads for the small road maintenance crews at the county. Stammen says that in the "hot zone" areas of activity, traffic volumes have increased six times and more above normal, with much of it being heavy truck traffic.

Two county roads southeast of Stanley are having considerable breakup as a result of the heavy truck traffic. Ten miles of paved roadway, breaking up because of heavy truck traffic, has been recycled this fall. Virgin aggregate was added to the ground-up material and left as a gravel roadway for the immediate future. This also creates dissatisfaction with the local residents, because of traffic dust and roadway surface roughness.

Also the gravel-surfaced roadways, with wet conditions, have been taking a tremendous beating from the heavy truck traffic. Stammen has been experimenting with various dust control/soil stabilizers as possible ways to improve the road conditions. Maintaining the impacted roads in a fair condition has placed an additional work load on equipment operators. Existing road budgets have not provided funding for the increased impact of the past year when most of the activity has occurred.

What will be the future impact of the oil and gas exploration and production on the road systems? The entire western part of the state is seeing increased energy exploration. The extent of the growth is unknown at this time. What is known is that whatever occurs will have a tremendous impact on the road system in the area and increased budgets will be required to maintain the desired level of service.

2008 "YOU SHOW US HOW" CONTEST WINNER

UTILITY LIFT MECHANISM

COUNTY: Barnes
CONTACT PERSON: Kerry Johnson, Highway Supervisor
TELEPHONE: 701-845-8508
ADDRESS: 1525 12th St. NW
Valley City, ND 58072

PROBLEM STATEMENT:

The county road crew was responsible for taking a series of cores on an asphalt roadway proposed for improvement. This involved two individuals transporting the coring machine to the work site with a pickup or trailer, unloading the coring machine, getting a core sample, loading the machine and moving to the next site. After collecting a series of cores, the work crew realized that a carrier could be attached to the vehicle to carry the coring machine, thereby eliminating the lifting of the machine and also holding the machine in place while the core was being extracted.

SOLUTION:

The carrier was designed to attach to the hitch of the vehicle, as shown in the photos. Two-inch square tubing was used for the vertical assembly, with 1 ½" tubing inserted for raising and lowering the platform. A 3/8 inch steel plate, 18 inches square was attached to the horizontal tubing to hold the coring machine. The sliding mechanism for raising and lowering the coring machine is secured with a bolt through holes drilled in the tubing. The coring machine can then be raised for transport with the cable and winch mounted at the top. When extracting cores, the platform drops to the roadway and the coring machine remains attached to the platform. The platform is designed to hold the specific coring machine being used.

In this particular case, a pickup was used to also haul the generator and water tank, thereby eliminating the need for additional vehicles.

LABOR, MATERIALS AND COSTS

The materials needed were approximately 4 feet of 2" steel tubing, 4 feet of 1 ¾" steel tubing, a 3/8" by 18"square steel plate, a winch and steel cable. Total material cost was approximately $90.00.

Approximately one day for one man was spent in making the mechanism.

SUMMARY

Collecting roadway cores has become a one-person operation. In the past, two people were necessary to load, unload and hold the coring machine in place. Now, for projects with low traffic counts, it can be done with one person. On a recent project involving 170 cores taken on a 200-mile project, it was estimated there was a $10.00 savings per core for a total of $1,700.00.

Also, this improvement has eliminated manual lifting of a heavy coring machine and facilitated safer operation of the machine, because it is permanently attached to the vehicle as cores are being taken. While the platform was specifically designed to hold the coring machine, it can be designed as a multipurpose lifting device and used for other purposes.

WINTER ROAD MAINTENANCE

By Vernon Monger

The last few winters have been very mild with limited snowfall in the western part of the state and more severe conditions to the east and northeast. Several of the state's western counties have seen such limited snowfall that many of our equipment operators have not gotten experience in snow plowing operations. Now is the time to start thinking of the upcoming winter and getting ready for the snow and ice season. We will hope for the best and be ready for the worst winter weather.

In the past we have issued a "snow removal" bulletin which has been widely distributed at our winter maintenance workshops. This identifies the need for an agency to have a policy statement, goals and objectives, and procedures manuals outlining how snow emergency situations will be handled. Having these statements helps management keep the public informed of the storm procedures they will use and also helps employees know what is expected of them. The statements also define to what extent snow and ice removal will be done. Budget constraints, with escalating fuel prices, may limit the amount of snow and ice removal that is done.

Following the previous season's activities, a post-season evaluation should be done. Several items to review are:

- What concerns were there from the public and public officials? Did we meet their expectations?
- What were problem areas related to personnel training needs, route scheduling, and storm response times?
- Was there enough equipment including trucks, loaders, and motor graders? Are repair and safety procedures in place?
- Were there enough materials? Were there sufficient sand and salt at proper sites?
- How can weather forecasting information be better used?
- Can we improve information sharing with the news media and the public?
- How can we better prevent accidents? Have we reviewed accidents and incidents that occurred?

It is very important to have a fall training session with all the employees of the agency. Because there may be new employees as well as employees with limited snow removal experience, it is a good idea to discuss as a group all the different aspects involved in winter operations. There are certain fall activities to be accomplished prior to snowfalls such as shoulder mowing; clearing the right of way of hay bales, etc.; culvert cleanout and marking of culverts; snowfence installations; and final maintenance of the roadway surface relative to loose gravel and windrows.

NDLTAP has several training aids available to assist you in your training efforts. The NDLTAP web page has a catalog of available training aids. These can be checked out through our office. We will also be doing a one-day workshop on winter maintenance at two locations within the state this fall. Watch the NDLTAP web page for the locations and the dates.

Risk Management Techniques for Winter Maintenance

by Vernon Monger, NDLTAP

To avoid the possibility of lawsuits or litigation the following should be implemented by the local road or street agencies.

- ☐ A policy on winter maintenance, with levels of service.
- ☐ Procedures manual
- ☐ Log of weather, temperature and precipitation reports
- ☐ Record of area-wide treatment orders to personnel
- ☐ Record of time, type of treatment, (plowing, deicing, etc.) and amount of material used on each route
- ☐ Management review of all accident and incident reports
- ☐ Regular safety training for all employees
- ☐ Frequent safety inspection of all equipment, before and after use

Additional Qualifying Courses for the Road Scholar Program

North Dakota Association of Counties' "Institute of Local Government" (ILG) conducts workshops which may be of interest and importance to road department personnel. The ILG workshops will be eligible for the road scholar certification.

COMING EVENTS

ND LTAP/TLN Events

Transition to Supervision - TLN
November 12, 2008
9:00 AM – 5:00 PM

Legal Aspects of Supervison - TLN
December 3, 2008
9:00 AM - 5:00 PM

Improving Your Ability to Deal with Conflict - TLN
January 14, 2009
9:00 AM - 5:00 PM

Culvert Installation & Culvert Repair Methods - TLN (tentative)
January 22, 2009
10:00 AM – 11:30 AM

Work Zone Traffic Control for Maintenance Operations - TLN
January 28, 2009
9:00 AM - 5:00 PM

Chip Seal - TLN
February 10, 2009
9:00 AM – 1:00 PM

Micro/Slurry Seals - TLN
February 11, 2009
9:00 AM – 1:00 PM

Cold In Place Recycling/Full Depth Reclamation - TLN
February 25, 2009
9:00 AM – 1:00 PM

Asphalt Conference - NDLTAP, NDDOT, DAPA
March 24 - 25, 2009
Noon - Noon

“Introduction to Highway Construction” Training

by Jerome Horner, UGPTI Staff

The North Dakota Department of Transportation, with the support of the Upper Great Plains Transportation Institute provided training for the new transportation technician series within the department.

Twenty-eight NDDOT maintenance transportation technicians participated in a 32-hour course entitled “Introduction to Highway Construction.” The course provided the new transportation technicians with an introduction to basic skills such as math, plan reading, materials, construction inspection, and traffic control. The various course topics were instructed by DOT staff members and also UGPTI staff members.

This instruction has been initiated by the department to give the transportation technicians an opportunity to better understand the skills required to inspect DOT construction projects.

Looking for your ideas and news articles

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

Videos & Publications

Go to the ND LTAP website: www.ndltap.org

Publications can be ordered online by visiting the Online Dakota Information Network (ODIN) search engine (Opens a new window)

Videos can be ordered using one of the following methods:
Order Videos Online
Mail or fax your order using the video request form (PDF, 23K)
E-mail your order directly to denise.brown.1@ndsu.edu

Northland Chapter of American Traffic Safety Services Association (NCATSSA) "How To" Training Workshop, March 17-18, Fargo, ND

The Northland Chapter of American Traffic Safety Services Association (NCATSSA) will again be holding a "How To" training workshop March 17 and 18, 2009. The "How To" training workshop will hold it's 17th annual event at the Fargo Ramada Plaza Suites & Conference Center. The "How To" is open to city, county, state, and federal agencies as well as consulting engineers and contractors.

This two-day conference is intended for field-level installers, supervisors, and designers who work in the area of work zone traffic control, permanent signing, and pavement marking. Members of local road authorities, local and regional utilities, consulting engineers, and contractors who are involved in the selection, inspection, installation, or maintenance of permanent signs, temporary work zone traffic control, or pavement marking will benefit from this conference.

Tentative workshops led by state, federal, and local industry professionals will address the following topics:

- Work Zone training, 3-part session
- How to meet performance requirements for Wet Refelective Pavement Markings
- New Sign-Making Technology
- NDDOT Traffic Control Work Zone Safety
- FHWA Minimum Reflectivity Requirements and Liability
- Quality Control and Pavement Markings
- OSHA's View on Traffic Control Safety
- Cable Median Barrier
- Pavement Marking Materials
- Signing & Striping Trucks
- Tri State CDL Updates
- High Visibility Clothing
- Work Zone Safety & Mobility
- Forgiving Highway Attenuators
- 2009 MUTCD Sign Changes
- Snow Plow Training & Simulator
- Open Forum
- Common types of crashes & driver behavior using video captured by RTMC cameras

The exhibit hall will feature 45+ displays and representatives for material and equipment suppliers nationwide.

Registration will be mailed out in November or can be made by visiting www.atssa.com

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