

North Dakota – Innovation Building Blocks

2016 National Pavement Preservation Conference

October 11 – 14, 2016 – Nashville, TN

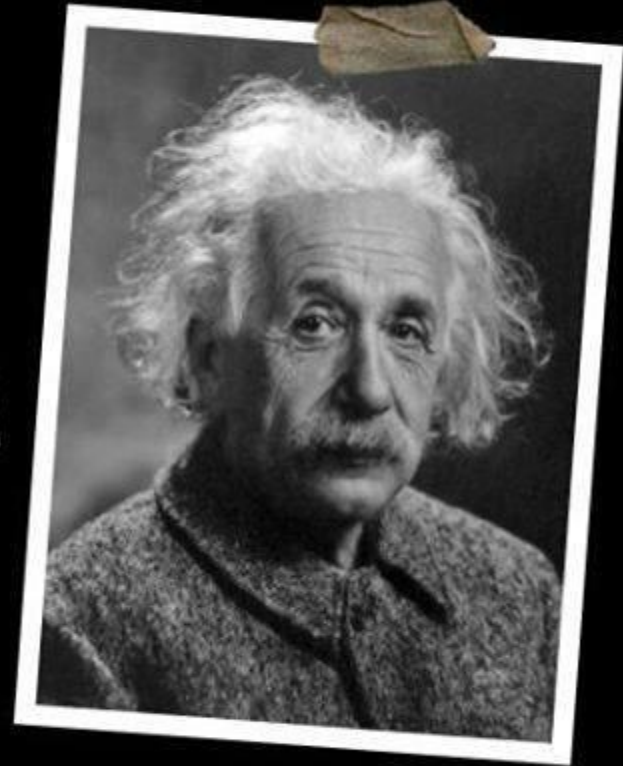
Dale C. Heglund, PE/PLS – NDLTAP Program Director

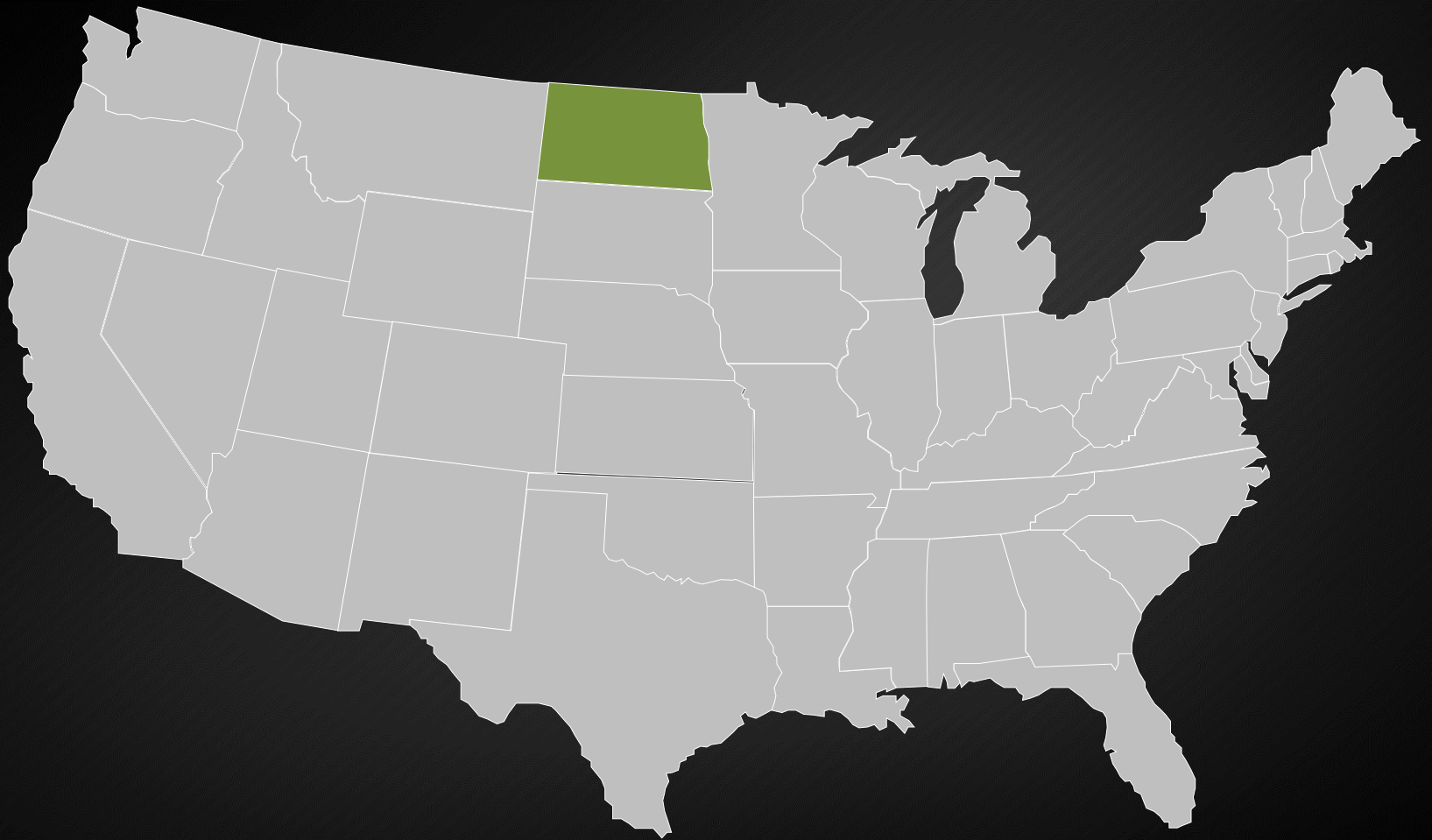
dale.heglund@ndsu.edu



National Pavement Preservation Conference 2016

**"Education is not
the learning of
facts, but the
training of the mind
to think."
-Albert Einstein**





National **Pavement Preservation** Conference 2016

"Entertaining and enlightening. . . Might be the genre's be-all and end-all."
—TORONTO STAR

HOW TO FLY A HORSE



THE SECRET HISTORY OF
**CREATION,
INVENTION,
AND
DISCOVERY**
KEVIN ASHTON





Conference 2016



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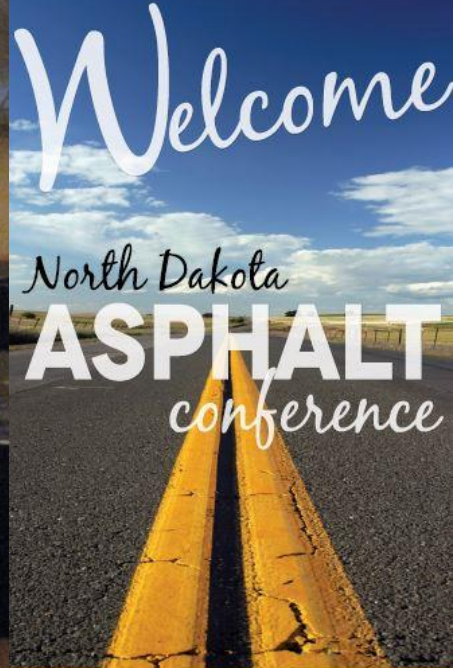


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UPPER GREAT PLAINS
TRANSPORTATION INSTITUTE
NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM



DAKOTA ASPHALT
PAVEMENT ASSOCIATION



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NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM



U.S. Department
of Transportation
**Federal Highway
Administration**



**DAKOTA ASPHALT
PAVEMENT ASSOCIATION**



National **Pavement Preservation** Conference







NDLTAP

2015 North Dakota Asphalt Conference Presentations

Title	Presenter
FHWA Update (PDF, 698K)	Wendall Meyer, FHWA
NDDOT Update (PDF, 1462K)	Grant Levi, P.E., North Dakota DOT
Ride Quality (PDF, 828K)	Clayton Schumaker, North Dakota DOT
2015 Ride Quality Awards (PDF, 532K)	Ken Swedeen, North Dakota DOT
Evotherm Admixture (PDF, 516K)	Gary Brennan, Brosz
CPAR Video (MP4, 29532K)	Larry Galehouse, National Center for Pavement Preservation
Preventive Maintenance, Techniques and Timing (PDF, 6457K)	Larry Galehouse, National Center for Pavement Preservation
MnDOT Update (PDF, 1592K)	Thomas Wood, Minnesota DOT
Milling for Smoothness, Milling for Profit (PDF, 4172K)	Kyle Hammon, Roadtec Inc.
The Future of Mix Performance Testing: Fatigue/Thermal Cracking (PDF, 1261K)	Tom Brovolod, Testquip
Pavement Design (PDF, 940K)	Ken Swedeen, Dakota Asphalt Pavement Association
Flexible Pavement Design (PDF, 995K)	Nickie Reis & Tom Bold, NDDOT

Presentation Archives

- [2015](#)
- [2013](#)
- [2012](#)

North Dakota Ride Quality Award 2014

MAYO CONSTRUCTION INC.
SAP-7-002(110)123

Third Place
Category: Two Opportunity

NDDOT
North Dakota
Department of Transportation



Final Agenda

Tuesday, April 5 – Moderator Mark Dougherty

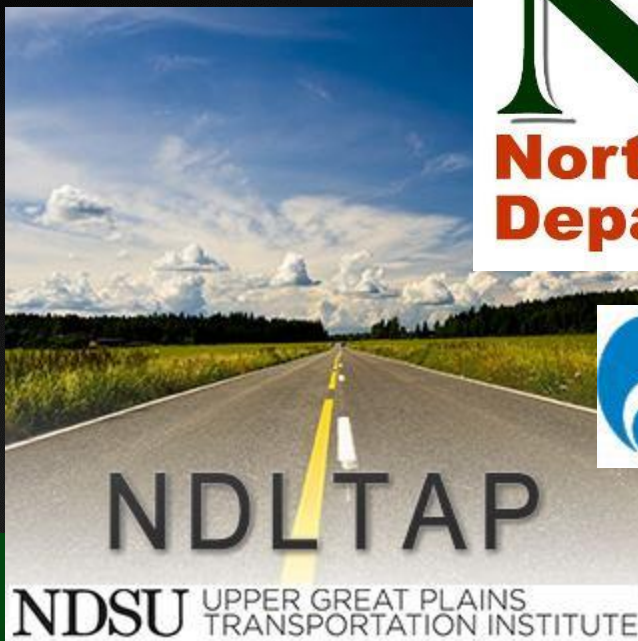
1:00 – 1:10	Welcome - Dale Heglund, NDLTAP Director
1:10 – 1:40	NDDOT Update – Grant Levi, NDDOT Director
1:40 – 2:00	FHWA Update - Kevin Michel, Engineering Services Team Leader, FHWA ND Division
2:00 – 3:00	NCAT Test Track Research – Pavement Preservation – Test Track Findings, Buzz Powell, National Center for Asphalt Technology
3:00 – 3:15	Break
3:15 – 4:15	Binder Basics – Specifications, History and Future, Mark Blow, PE, Asphalt Institute
4:15 – 4:30	NDDOT Paving Report – Clayton Schumaker, Assistant State Materials Engineer, NDDOT
4:30 – 5:00	Tips for Low Volume Road Designs - Ken Swedeen, DAPA Executive Director
5:00	Social and Appetizers - 2015 Ride Awards – Ken Swedeen and Clayton Schumaker

Wednesday, April 6 – Moderator Sharon Lipsh

7:00 – 8:00	Continental Breakfast
8:00 – 8:45	NCAT Quarry Road – Test Track – Thin Lift Overlays, Research Review and Truck Loading Info - Buzz Powell, National Center for Asphalt Technology
8:45 – 9:15	Depressed Joint Test Section: County Review – Kerry Johnson, Barnes County and Tom Cannon, Maxwell Products
9:15 – 10:00	Spray Paving - Jason Johnson, ArrMaz, and Rick Barezinsky, KDOT Chief Field Engineer
10:00 – 10:15	Break
10:15 – 11:00	Road Reclamation Industry Overview: Pavement Preservation, HIR, CIR, FDR and Soil Stabilization – Jonathon Pease, Rock Solid
11:00 – 12:00	What Minnesota is Doing to Improve PM Treatments Performance Tom Wood, Mn/DOT Research Project Supervisor







ND DOT
North Dakota
Department of Transportation



U.S. Department of Transportation
Federal Highway Administration

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INNOVATION CHALLENGE



NDDOT TRansportation Innovation Program – TRIP

- Objective of Initiative:
 - To identify and implement innovative ideas for transportation projects, processes and products.
- Focus Areas:
 - bridges and structures,
 - construction, operations and maintenance,
 - roadway surfacing,
 - planning, environmental, safety,
 - service delivery, transit, multi-modal,
 - innovative training, research

NDDOT Transportation Innovations Program - (TRIP) 2016

What is TRIP

TRIP is a new program to identify and implement innovative ideas in transportation projects, processes and products. Innovation Ideas should address transportation in areas including but not limited to:

- Bridges and Structures
- Construction
- Operations and Maintenance
- Roadway Surfacing
- Planning
- Environmental
- Safety
- Service Delivery
- Transit
- Multi-modal
- Innovative or Currently Underprovided Transportation Training
- Innovative Research



TRIP Ideas Being Advanced

- Using a Texas Underseal on HBP Overlay projects
- Studying the use of Fiberglass Rebar & Dowels Bars in Bridges and Pavements
- Using Fiber Reinforced HBP
- Installing Culvert Movement Monitoring/Instrumentation
- Using URETEK Deep Polymer Injection on frost heaves
- Monitoring traffic flows with Distributed Acoustic Sensing
- Using Geogrid Reinforcement under aggregate base for flexible pavement
- Using a MIT Scan T2 for collecting concrete pavement thicknesses
- Using Hydrated Lime as an anti-stripping agent in new full-depth HBP pavements
- Developing a digital driver's license application process
- Using TheSmartCone™ technology for security, work-zone safety and surveillance applications
- Using Jointbond to address longitudinal HBP joint deterioration
- Using WatershedGeo HydroTurf® for drainage way armoring



Who Can Submit An Innovation Idea?

- Contractors
- Consultants
- Suppliers
- Associations
- Service Providers
- Colleges & Universities
- Tribes
- Local Jurisdictions
- NDDOT Staff

How to Submit an Innovative Idea

Please read the [Call for Transportation Innovation Ideas](#) for instructions to submit your ideas.

What is "Every Day Counts"?

The FHWA EDC (Every Day Counts) program provides some examples of transportation innovative ideas, and was created to identify and rapidly deploy proven but underutilized innovations to:

- Shorten Project Delivery Process
- Enhance Roadway Safety
- Reduce Congestion
- Improve Environmental Sustainability

For more information on EDC and example projects please see: [FHWA Every Day Counts](#)



novation Conference 2016





Transportation Learning Network

A Partnership of DOTs and Universities



Asphalt Pavement Maintenance

DATE: Wednesday, December 10, 2014

TIME: 9 AM – 12:00 PM (noon) Central Time

DELIVERY: Video Conference (Bismarck Broadcast)

This 3-hour presentation will cover pavement preservation concepts, general asphalt pavement distresses, pavement evaluation, pavement performance curves, pavement rehab strategies, pothole repair techniques, and crack pouring concepts.

SPEAKER(S)



Nick Jones, PE, is the Director of the Utah LTAP Center. Nick previously served as the Provo City Engineer, a post that he held for 32 years. Nick has a bachelors and a master's degree from Brigham Young University in Civil Engineering and is a licensed professional engineer as well as a licensed structural engineer. Nick has been a leader in the state of Utah as a past president of the Utah City Engineer Association, a member of the Utah City Engineers Association and a member of the Utah State Joint Highway Committee.

TARGET AUDIENCE

General roadway maintenance staff and supervisors, road superintendents and public works directors who are in charge of roads and streets.



BASIC CONCEPTS FOR PAVEMENT PRESERVATION

DATE: Wednesday, April 1, 2014

TIME: 9:00 AM – 4:00 PM CT

DELIVERY: Video Conference

This 6-hour course is intended to present the concept of pavement preservation and its applicability within road agencies. Topics include definitions, pavement life, road networks, alternative strategies, pavement distresses, guidelines, and preservation treatments.

Learning Outcomes:

- Importance of pavement preservation.
- An understanding of pavement distresses – structural distresses versus environmental distresses.
- Pavement preservation treatments and their applicability.
- The concepts of pavement serviceability and remaining life.
- The need and economics of pavement preservation, the consequences of rough roads.
- An understanding of extending pavement life.
- Methods for measuring highway network health, testing for long term effectiveness, network performance.
- Understanding of and impacts of management strategies, including “Worst First (Traditional)” and “Mix of Fixes.”

SPEAKER



Larry Galehouse, Director, National Center for Pavement Preservation. Galehouse earned his B.S. in Civil Engineering from Michigan State University in 1980 and a B.S. in Surveying from Ferris State University in 1974. His achievements and awards include:

- Certificate of Special Tribute presented by Michigan Governor John Engler, 1999
- Partnership in Excellence Award presented by the Federal Highway Administration, 1999
- AASHTO Lead State Team for Pavement Preservation Service Recognition

TARGET AUDIENCE

Transportation managers, district and regional engineering and maintenance staff, county road superintendents, pavement designers, construction schedulers, pavement and asset management staff. *This presentation was last shown on January 6, 2104; much of this presentation will be a repeat.*





158TH AVE SE



IN-PLACE RECYCLING & RECLAIMING SEMINAR WITH LIVE DEMONSTRATION

August 9th & 10th, 2016
7:30 am - 5:00 pm

Learn from the people who wrote the book.

Location

Ramada Plaza Fargo
1635 42nd Street South
Fargo, ND 58103

For those needing overnight accommodations, please make arrangements directly with the hotel.
www.ramadafargo.com

**Qualifies for
12 Professional Development Hours
(PDH)**

Who Should Attend:

The Seminar addresses the needs of professionals at all levels from Interstate Highways to Commercial and Residential Developments—Design Engineers, Highway Engineers, Consulting Engineers, other Public Works Officials, Contractors, and Material Suppliers, who want to incorporate responsible recycling into their pavement program.

Seminar Topics

- Slurry/ Micro Applications
- Cold In-Place Recycling
- Alternative Road Designs
- Cold Planing
- Full Depth Reclamation
- Mix Designs
- Hot In-Place Recycling
- Soil Stabilization

IN PARTNERSHIP WITH



National Pavement





**Materials testing is the foundation
to quality roadway projects.**



Contact

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NDDOT Materials and Research
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staylor@nd.gov

Rachel A. Leigh
North Dakota State University
Upper Great Plains Transportation Institute
Instructional Design Specialist
701.328.9862
rachel.leigh@ndsu.edu

More online training modules and video
demonstrations forthcoming.



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MATERIALS TESTING

Self-Paced Online Training Modules
Video Demonstrations



31st Annual North Central Regional Local Road Conference

Tentative Agenda

TUESDAY - OCTOBER 18, 2016

3:00 - 5:00 pm Exhibit Booth Set Up

5:00 - 8:00 pm On-Site Registration & Vendor Social



WEDNESDAY - OCTOBER 19, 2016

7:00 - 8:00 am On-Site Registration Moderator: Dirk Rogers

8:00 - 8:15 Welcome, Announcements & Introductions: *SDLTAP*

8:15 - 8:45 Geogrid Stabilization Basics: *Scott Whaley and Nick Nuttbrock, Tensar*

8:45 - 9:15 "You Show Us" Awards: *Noel Clocksin, SDDOT*

9:15 - 9:45 Break - Exhibit Booth Visits

9:45 - 10:45 Preserving our Asphalt Roadways: *Stu Zick, Jebro, Inc.*

10:45-11:30 Communicating about Local Road Safety with Local Elected Officials: *Rosemarie Anderson, FHWA, Office of Safety*

11:30-1:00 pm Lunch (Provided) Moderator: Andrew Peterson

1:00 - 2:00 Culvert Basics & Culvert Slip Lining: *Dale Heglund, NDLTAP & Kenny Moulds, Subsurface, Inc.*

2:00 - 2:45 Load Securement & CDL Requirements: *Sgt. Kelly Stern & Trooper Kevin Moser, SD Highway Patrol*

2:45 - 3:15 Break - Exhibit Booth Visits - * Vendor Meeting @3:15 *

3:15 - 4:15 Round and Round - Tire Basics: *Tim Baker, Bridgestone Commercial Solutions and Mining*

4:15 - 5:00 Equipment Contract - Legal Aspects: *Aaron Birst, NDACO Legal Council*

5:30 - 8:00 Dinner (Provided)
Cash Bar & Exhibit Booth Visits

THURSDAY - OCTOBER 20, 2016

7:00 - 8:00 am Breakfast (Provided) Moderator: Dennis Wilson
Exhibit Booth Visits

8:00 - 9:00 Traffic Incident Management: *Megan Patent-Nygren, NELTAP*

9:00 - 9:30 Resource and Partnership Opportunities: *Denise Brown, National LTAP Assn & DJ Buthe, NACE Representative*

9:30 -10:00 Break - Networking Opportunity - *Pick Up PDH Certificates*
Final Exhibit Booth Visits - Tear Down

10:00-10:45 Extending 3R Standards to County Systems: *Dennis Smith, NELTAP & LeMoyne Schulz, NE Department of Roads*

10:45-11:30 Wyoming LTAP Research - Local Road Safety Plan: *Bart Evans, Wyoming Technology Transfer Center*
ND Geogrid Demo Project: *Curt Glasoe, NDLTAP and Bryan Haugenoe, Divide County, North Dakota*
Gravel Crushing Specs for Counties: *Steve Monlux, LVR Consultants of Montana*

11:30-12:00 Conference Wrap Up & Door Prizes: *SDLTAP*
Must be present to win!

HOTEL

A block of rooms has been reserved at the Best Western Ramkota Hotel in Rapid City, SD (605-343-8550) under the name of County Road Conference (LTAP). Be sure to ask for the special room rate and reserve rooms early!

REGISTRATION

Pre-register and pay by October 5, 2016, in order to receive the discounted registration rate. The conference registration deadline is October 12, 2016. Cancellations will not be reimbursed if received after October 12, 2016.

This publication will be made available in other formats upon request. If you need special accommodations for lodging and/or diet related to disability, please call SDLTAP at 605-688-4185 by October 5, 2016.



Innovation is Local



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2016 National Pavement Preservation Conference

October 11 – 14, 2016 – Nashville, TN

Dale C. Heglund, PE/PLS – NDLTAP Program Director

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