# LEARN EVOLUE INPLEMENT

NORTH DAKOTA ASPHALT CONFERENCE APRIL 3-4 2019 • RAMADA BISMARCK HOTEL

NDSU

UPPER GREAT PLAINS TRANSPORTATION INSTITUTE NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM

## A SPECIAL WELCOME TO FIRST-TIME ATTENDEES

We are pleased you've decided to attend your first ND Asphalt conference. The agenda is full of educational opportunities and you will have plenty of time to network with experts in the asphalt industry.

## A BIG THANK YOU TO OUR SPONSORS

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## **QUESTIONS, COMMENTS AND FEEDBACK**

If you have any questions, please see the registration table and we will do our best to get them answered. Please remember to fill out the conference evaluation form. This is your conference and we want to be sure it is meeting your expectations.



All presentations will be available on the NDLTAP website after the conference, **www.ndltap.org**.



ND Asphalt Conference Dates APRIL 7-8, 2020 • Ramada Bismarck Hotel APRIL 6-7, 2021 • Ramada Bismarck Hotel



This conference is coordinated and sponsored by the North Dakota Local Technical Assistance Program (a program under Upper Great Plains Transportation Institute, North Dakota State University), North Dakota Department of Transportation, Dakota Asphalt Pavement Association, and Associated General Contractors of North Dakota.



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# **CONFERENCE AGENDA**

## WEDNESDAY, APRIL 3, 2019

1:00 PM - 5:00 PM CT

## MODERATOR - JEREMY HOLT, ANDERSON WESTERN

- 1:00 1:10 OPENING REMARKS Dale Heglund, NDLTAP Director
- 1:10 1:30 NDDOT WELCOME Tom Sorel, NDDOT Director Tom Sorel

1:30 - 2:30 PAVEMENT DESIGNS - LOCAL STREET/ROAD, 2" THIN LIFT OVERLAY AND MODULES, PAVE INSTRUCTION Amy Miller, PaveExpress Michael Rivinius, Wold Engineering Curt Dunn, NDDOT

- 2:30 2:45 CHIP SEALS WITH WARRANTIES Chad Beggs, NDDOT
- 2:45 3:00 NETWORKING BREAK
- 3:00 3:30 UND RESEARCH Daba Gedafa, PhD, PE – Performance-Based Design Nabil Suleiman, PhD – Balanced Mix Design Gyrations
- 3:30 4:30 **PAVEMENT DENSITIES AND TACK COATS** Mark Blow, Asphalt Institute
- 4:30 5:00 **BINDER SELECTION PROCESS** Andy Cascione, PhD, Flint Hills
- 5:00 SOCIAL AND 2018 RIDE AWARDS KEN SWEDEEN, WAYDE SWENSON Sponsored by DAPA, Ken Swedeen

#### PARKING LOT DEMOS

IC roller with data reviews (Bryce Wouri, Northern Improvement Co. and Curt Dunn, NDDOT) Distributor–new technology (Swanston) Hamm roller with IC and a truck with a scanner system (RDO) Soy-based rejuvenator application equipment (Boulder Products & Services

## UND STUDENT RESEARCH POSTERS:

Robeam Melaku, PhD candidate Jun Liu, MS student Anjo Mate, MS student

# **CONFERENCE AGENDA**

## THURSDAY, APRIL 4, 2019

7:00 AM - 12:00 NOON CT

7:00 – 8:00 Full Breakfast Provided

## **MODERATOR - AMY BIESE, NDDOT**

- 8:00 8:30 NDDOT UPDATE Matt Linneman, NDDOT
- 8:30 9:15 **PERPETUAL PAVEMENTS** Rebecca McDaniel, North Central Superpave Center at Purdue University
- 9:15 9:45 URBAN PAVEMENT DESIGN HISTORY AND CURRENT PRACTICE Michael Mart, City of Bismarck
- 9:45 10:15 NETWORKING BREAK
- 10:15 10:50 **BASE STABILIZATION** Terry Maier, Team Laboratory Chemical Corp.
- 10:50 11:30 COLD-IN-PLACE RECYCLING, WILLIAMS COUNTY Trevor Christianson, Mayo Construction Adam Mahaney, Western Asphalt Products Dennis Nelson, Williams County
- 11:30 Noon EVOLUTION OF OIL WHERE DID THE CUTBACKS GO? Don Moors, Ingevity

## SAFE TRAVELS HOME

# 2018 ND RIDE QUALITY AWARDS

CONTRACTOR	PROJECT	AWARD	CONSTRUCTION METHOD
Knife River	SS-2-046(047)060	1 <sup>st</sup> Place	3 Opportunities
Mayo Construction	NH-6-081(095)206	2 <sup>nd</sup> Place	3 Opportunities
Anderson Western, Inc.	NH-1-200(073)236	3 <sup>rd</sup> Place	3 Opportunities
Anderson Western, Inc.	NH-1-003(049)093	1 <sup>st</sup> Place	2 Opportunities
Knife River	SS-2-032(029)049	2 <sup>nd</sup> Place	2 Opportunities
Border States	NH-1-006(017)042	3 <sup>rd</sup> Place	2 Opportunities

# 2019 CONFERENCE STEERING COMMITTEE

Amy Beise	NDDOT
Denise Brown	NDLTAP
Carey Burke	AGC
Curt Dunn	NDDOT
David Ferrell	FHWA
Bryon Fuchs	Local Government
Daba Gedafa	UND, Civil Engineering
Dale Heglund	NDLTAP
Mark Hendrickson	Northern Improvement Company
Jeremy Holt	Anderson Western
Tim Horner	Upper Great Plains Transportation Institute (UGPTI)
Matt Linneman	NDDOT, M&R
Ryan Lynch	Flint Hills Resources
Michael Mart	City of Bismarck
Dennis Nelson	Williams County
Chris Padilla	NDLTAP
Justin Ramsey	NDDOT, Transportation Services
Mike Rivinius	Wold Engineering
Clayton Schumaker	NDDOT, M&R
Mike Kisse	NDDOT
Ken Swedeen	Dakota Asphalt Paving Association
Nabil Suleiman	UND, Civil Engineering
Stephanie Weigel	NDDOT, Planning
Andrew Wrucke	Upper Great Plains Transportation Institute (interim NDSU Civil rep)

# **SPEAKER BIOS**

### **Chad Beggs**

Chad Beggs is an engineering team leader with the Minot District of NDDOT. He oversees federal and state aid construction projects within the Minot District and administers the district design duties. Chad graduated from North Dakota State University with a degree in civil engineering and is a registered professional engineer in North Dakota.

#### **Amy Beise**

Amy Beise is team lead for research and pavement design at the NDDOT. She oversees the operations of the research program, issuance of concrete & bituminous thickness recommendations, falling weight deflectometer data collection, and pavement profiling. Amy's goals for research within the NDDOT are to identify the state's greatest transportation research needs and promote implementable, cost-saving solutions. Amy has bachelor's and master's degrees in civil engineering from North Dakota State University.

#### Mark Blow

Mark Blow is a registered professional engineer and a member of the Association of Asphalt Paving Technologists. Mark has been a district engineer for the Asphalt Institute since 1996. He has developed and conducted many training sessions at the national, state and local level. Prior to the Asphalt Institute, he was the bituminous engineer for the SDDOT where he developed and implemented quality control/quality assurance specifications, guidelines and training programs. Mark has been actively involved in the hot mix asphalt industry since 1979.

#### Andy Cascione

Andy Cascione is an asphalt technical representative at Flint Hills Resources in Rosemount, MN. He provides technical support for terminals that produce asphalt binders and emulsions; selects raw materials; optimizes product formulations; leads research initiatives; supports processing procedures; and troubleshoots specification issues. He studied asphalt materials at Michigan Tech University and worked in the industry as a hot mix quality engineer. In 2014 Andy earned his Ph.D. in civil engineering from Iowa State University where he conducted research in polymer modified asphalt.

#### **Trevor Christianson**

Trevor Christianson graduated from North Dakota State University with a bachelor's degree in construction engineering. In the early 90's he worked for the Kansas Department of Transportation. He moved to Bottineau and worked as an engineer for Wold Engineering for 14 years, serving numerous counties and cities in northern North Dakota. He is currently the vice president of Mayo Construction in Cavalier, ND, and serves on the board of directors of the Associated General Contractors of North Dakota.

#### Curt Dunn

Curt Dunn is the highway material coordinator with NDDOT in the Grand Forks District. He earned a bachelor's degree in civil engineering from the University of North Dakota and began his career with NDDOT in 1995. Curt is a registered professional engineer and has taught soil certification classes for the department. Curt serves on the ND Asphalt Steering Committee, the Transportation Research Innovation Program, and the Research Advisory Committee. He also serves on several study groups researching topics such as intelligent compaction and percent within limits specifications.

#### Daba Gedafa

Daba Gedafa is interim chair and associate professor of civil engineering at the University of North Dakota. He received his Ph.D. in civil engineering from Kansas State University in 2008. He specializes in pavement and materials engineering. He is a registered professional engineer in North Dakota and Connecticut and is also registered as an Envision Sustainability Professional. He is president of American Society of Civil Engineers (ASCE) North Dakota section.

#### Dale C. Heglund

Dale is director of the North Dakota Local Technical Assistance Program, a part of the Upper Great Plains Transportation Institute at North Dakota State University. Heglund says he is grateful for the opportunity to share experiences from the past 40 or more years to help North Dakota's transportation leaders transcend their normal high-water mark of learning.

#### Jun Liu

Jun Liu is a master's student in civil engineering at the University of North Dakota. He received his bachelor's degree in civil engineering from Iowa State University in 2016. He is a registered engineer in training in North Dakota. His research focus is in pavement and material engineering. Currently, he is working on research related to performance-based specifications for asphalt pavements.

#### Matt Linneman

Matt is the materials & research engineer for the North Dakota Department of Transportation. He improves and maintains the quality highways and bridges in a cost-effective manner through the innovative use of materials. Matt previously worked in the NDDOT Environmental & Transportations Services Division and in the design section of the DOT Support Center at North Dakota State University. Matt earned a bachelor's degree in civil engineering and a master's of business administration from NDSU.

#### Adam Mahaney

Adam has spent 14 years in the asphalt industry, originally working in Ontario for Seeley and Arnill Construction for 7 years on a cold-in-place recycling crew. During his time at Seeley and Arnill, he recycled approximately one million tons of recycled asphalt pavement using both cold-in-place recycling and central plant recycling with emulsified asphalt and foamed asphalt technologies. In 2012 Adam transferred to an affiliated company, Western Asphalt Products, as the company was developing its two asphalt emulsion terminals. He has been general manager of the Brandon emulsion terminal since 2012 and remains involved in some cold-mix and cold-in-place projects throughout Western Canada and North Dakota.

#### **Terry Maier**

Terry Maier is the president of Team Laboratory Chemical Corp. Inc. (TeamLab), having started with the company in 1984. He served as sales manager until 2003 when he and his wife purchased the company, which is the manufacturer of its patented base stabilizer Base One, which increases the strength of paved roads and the durability of gravel and dirt roads Located in Detroit Lakes, MN, TeamLab develops a variety of specialized products for multiple industries.

#### **Michael Mart**

Michael is a project engineer with the City of Bismarck and is a registered professional engineer in North Dakota. After earning a bachelors' degree in construction engineering from NDSU in 2011, Michael began working for the City of Bismarck as an engineering technician and became a project engineer in November of 2012. He oversees the pavement management program for the city and has designed and overseen several roadway construction projects.

#### Anjo Mate

Anjo Mate is a graduate student at the University of North Dakota seeking a master's degree in civil engineering. He joined UND in spring 2018. He earned his bachelor's in civil engineering from Mapua Institute of Technology, Manila, Philippines. He passed the Engineer-in-Training (EIT) Exam in 2017. Mate worked as a civil engineer at the department of transportation (Philippines) as a quantity surveyor for a year. He estimated materials for asphalt pavements for provincial airports and harbors. His research interest is in the area of pavement engineering and materials.

#### **Rebecca McDaniel**

Rebecca McDaniel has been technical director of the North Central Superpave Center at Purdue University since 1995. Before that she served as research engineer and manager with the Indiana Department of Transportation where she specialized in pavements and materials. McDaniel holds bachelor's, master's, and doctoral degrees in civil engineering from Purdue University, and a bachelor's degree in English from Indiana University.

#### Robeam Melaku

Robeam Melaku is a doctoral student in civil engineering at the University of North Dakota. He received his master's in transportation and road engineering in 2014, and bachelor's in civil engineering in 2011 from Addis Ababa University, Ethiopia. His research focus is in pavement and material engineering. He is currently working on research related to sustainable pavement materials.

# SPEAKER BIOS continued

#### **Amy Miller**

Amy Miller is national director for the Asphalt Pavement Alliance which represents the interests of the Asphalt Institute, the National Asphalt Pavement Association and a consortium of the state asphalt pavement associations. Amy is a graduate of the University of Florida with a bachelor's degree in environmental engineering and a master of business administration. She is a licensed professional engineer in Florida. After college, she worked as a civil engineer doing site work and land development. She went on to work for a pipe company as a sales engineer and eventually worked into a key account manager position for another manufacturing organization. Recently, she marked her 10th year in the trade association industry and began her third year in the Asphalt Pavement Alliance.

#### **Don Moors**

Don Moors is senior technical sales representative and account manager with Ingevity Corporation. He is involved in technical sales of asphalt additives, including key account management and growth, new business development, and new product introduction. Don graduated in 2002 from Clemson University with a bachelor's in mechanical engineering and went to work with MeadWestvaco Corporation which later became Ingevity.

#### **Dennis Nelson**

Dennis Nelson began working for the City of Williston as a surveyor and project inspector. In 2005, he went to work for Williams County as the county highway superintendent. He oversees all aspects of the Williams County Highway Department including budgeting, equipment, gravel and paved road projects, personnel, supplies and many other duties. Dennis also works with all of the townships in the counties as needed.

#### **Michael Rivinius**

Michael Rivinius is vice president of the board of directors for Wold Engineering, P.C. and operations manager for the Bismarck office. He graduated from North Dakota State University with a bachelor of science in civil engineering. His areas of expertise include structural design, roadway design, hydrology, hydraulics, project development and construction engineering. Michael is a past president of the board of directors for the North Dakota Association of County Engineers, and is a member of the American Society of Civil Engineers and the American Society of Highway Engineers.

#### **Thomas Sorel**

Thomas Sorel was appointed director of the NDDOT in July 2017. As director, he leads the Department of Transportation and is a member of the ND Governor's Cabinet. He provides leadership for the development of the state's transportation system including roadways, transit, pedestrian and bicycle paths emphasizing the economic vitality of the state and ensuring high service levels to citizens. The department ensures that people and goods move safety across the state by planning, building, and maintaining 8,518 miles of roadway and 4,858 bridges with a biennial budget of \$2.6 billion. The department also provides quality service for motor vehicle functions including titling, registering, and administering the excise tax and Real ID. He previously served as Minnesota Department of Transportation commissioner from 2008-2012. Prior to that, he had a 30-year career with the U.S. Department of Transportation's Federal Highway Administration, serving as administrator of its St. Paul Division from 2005 to 2008.

#### Nabil Suleiman

Nabil Suleiman is an associate professor of civil engineering at the University of North Dakota. He received his Ph.D. degree in engineering from North Dakota State University in 2001. He teaches geotechnical and pavement engineering courses at UND including a sustainable pavements course. Nabil's area of expertise is pavement engineering and materials. He has conducted several research projects for the NDDOT over the past 17 years and was the first to utilize the asphalt pavement analyzer for NDDOT research projects.

#### Ken Swedeen

Ken became the executive director of the Dakota Asphalt Pavement Association in 2001. Prior to earning his bachelor's degree in civil engineer from South Dakota State University he worked on various highway construction projects in Montana and Wyoming. He began his engineering career with Texaco, Inc., as a project engineer in Houston, TX. He then worked for the Wyoming Department of Transportation for 20 years as a materials engineer, a resident engineer in Jackson, WY, and a district maintenance engineer is Casper, WY. He then became the city engineer for the city of Sioux Falls, SD, for two years. Ken also holds a master's degree in business administration from the University of Wyoming.

# **CONFERENCE SPONSORS**







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Special thank you to DAPA for sponsoring the social.



# **CONFERENCE ATTENDEES**

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## **CONFERENCE ATTENDEES** continued

Dale Madsen, Border States Paving, Inc. Tyler Madsen, NDDOT Adam Mahaney, Western Asphalt Products Terry Maier, Team Laboratory Chemical Corp Lowell Malard, Butler Machinery Gabe Maliscke, Ulteig Seng Marohl, NDDOT Michael Mart, City of Bismarck Jon Martin, Wold Engineering Matt Mastel, NDDOT Anjo Mate, UND Mike May, Interstate Engineering Jason Mayfield, Wold Engineering Thomas McCabe, McKenzie County Travis McCloud, NDDOT Rebecca McDaniel, North Central SuperPave Center Purdue University Jeff McElwain, Ackerman-Estvold Scott McGirr, Husky Asphalt Robeam Melaku, UND Amy Miller, PaveExpress Don Moors, INGEVITY/EVOTHERM Jeremy Moreley, RDO Equipment James Mullen, Swanston Equipment Mackenzie Nauman, CHS Inc Brady Needham, Border States Paving, Inc. Jordan Nehlsk, NDDOT Dennis Nelson, Williams County Kay Nerlien, NDDOT Rodney Ness, Swanston Equipment Jon Newman, Mayo Construction Jesse Nieuwsma, Strata Corporation Tim O'Connell, INGEVITY/EVOTHERM Reed Oien, Steele Chuck Olsen, Benchmark Greg Olson, NDDOT Julie Olson, NDDOT Josh Pape, Sitech Dakotas Jason Pearson, RDO Equipment Laura Peebles, NDDOT Aaron Perez, NDDOT Tyler Peterson, NDDOT Brad Pfeifer, Houston Engineering, Inc. Gary Porritt, Boulder Products and Services Kevin Ralphs, NDDOT Rob Rayhorn, NDDOT Brandon Reber, Moore Engineering Nate Renner, Houston Engineering, Inc. Michael Rivinius, Wold Engineering Jeff Robinson, Robinson Grinding & Profiling Justin Rogstad, NDDOT Rusten Roteliuk, Houston Engineering, Inc. Christian Rudebusch, NDDOT

John Saiki, Morton County Darin Schaeffer, Bartlett & West Dean Schloss, NDDOT Ryan Schuehle, SRF Consulting Tim Schulte, Mayo Construction Joe Schultz, Wold Engineering, PC Clayton Schumaker, NDDOT Runn Senn, Flint Hills Resources Wade Senger, Interstate Engineering Korby Seward, NDDOT Karl Shoberg, Unique Paving Materials Jeff Shoger, Flint Hills Resources Jared Sjulestad, Border States Paving, Inc Jeff Smith, Wold Engineering, PC Justin Smith, City of Watford City Tom Sorel, NDDOT Director Thomas Soucy, Cass County Bernerd Southam, NDDOT Craig Sperling, NDDOT Joshua Stuchl, Brosz Engineering Nabil Suleiman, UND Jeffrey Swank, NDDOT Materials & Research Molly Swanston, Swanston Equipment Ken Swedeen, Dakota Asphalt Pavement Association Wayde Swenson, NDDOT Ann Taylor, Brosz Engineering Sharon Taylor, NDDOT Ron Tessier, Dakota Asphalt Pavement Association Gary Trottier, NDDOT Cole Ude, Ward County Hwy. Dept. Eli Ulmer, NDDOT Belinda Urlacher, NDDOT Eric Urness, Mercer County Bobby Usher, NDDOT Taylor VanEaton, NDDOT Ron Wagner, Wold Engineering Adam Walker, Houston Engineering, Inc. Brian Walter, Ward County Hwy. Dept. Dan Wegman, INGEVITY/EVOTHERM Stephanie Weigel, NDDOT Scott Whaley, Tensar Corp Eric Wiedmeier, Border States Paving, Inc. Ben Williams, WFW Engineers Joel Wilt, NDDOT Steve Windish, Ulteig Shane Winkler, Cass County Tyler Wollmuth, NDDOT Tim Wood, Apex Engineering Group Bryce Wouri, Northern Improvement Shane Yates, Burleigh County Carey Yoder, Braun Intertec Jason Zentgraf, Butler Machinery Company










Thoto Highlights

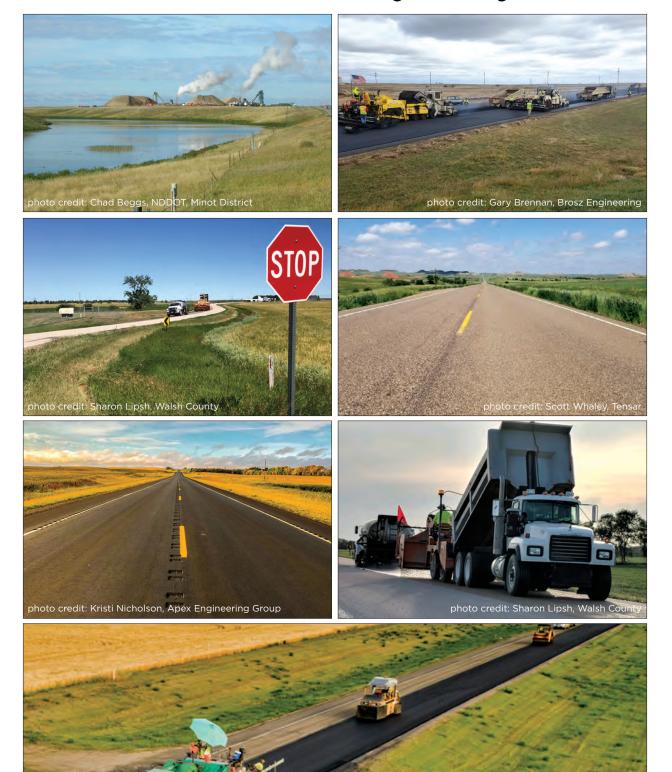


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