

The Engineering Informer

September 12th, 2023

MEMBERS OF THE
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
SDES EASTERN CHAPTER NEWSLETTER
PO BOX 1512 SIOUX FALLS, SD 57101 | WWW.SDES.ORG

NSPE-SD EASTERN CHAPTER
SOUTH DAKOTA
ENGINEERING SOCIETY

INSIDE THIS ISSUE

PRESIDENT'S COLUMN	1
TREASURER'S REPORT	2
UPCOMING EVENTS	3
MONTHLY MEETING	4
MONTHLY MEETING	4
SUMMARY	5
FALL CONFERENCE	6
GOLF RECAP	7-10
WEBEX LOGIN	11
ADVERTISEMENTS	12

WebEx: In addition to our monthly in-person presentation, the meetings will also be broadcast on WebEx. See pages 5 and 11 of this newsletter for the WebEx log-in information.

WELCOME TO OUR NEW MEMBERS SINCE OUR MAY NEWSLETTER:

Dan Drake
Matthew Kirkwold
Adam Esche

PRESIDENT'S COLUMN

BY DEVIN CLAY, PE

September already? It's amazing how fast our summer months seem to go here in South Dakota. I hope everyone will be able to get out and celebrate the closing days of summer and had a great Labor Day weekend. The sun is no longer shining when I wake up in the morning, and those morning runs will soon be in much cooler weather, finally! For me and my fellow hunters, this is just the beginning of our favorite time of year. This also means that our monthly chapter meetings are back in full swing.

I would first like to give a big thank you to Josh Peterson (Past President) and all our officers, directors, committee chairpersons, and the volunteers that we had over the last year and those who are currently filling those roles. I would also like to give a shout out to Kent Ode for another very successful golf outing. We had a record turnout this year! With this being our main scholarship fundraiser, it would be great to continue to break that record turnout year after year.

Last, I would like to thank Nancy Hoines, our Executive Director. She does so much for SDES that truly helps keep things running like a well-oiled machine, and she has been a great help to me as my Presidential year kicks off.

The SDES Fall PDH Conference will be held in Box Elder/Rapid City this year and is on October 11th – 12th. The event will kick off with a tour of Rapid City's Wastewater Treatment Facility in the afternoon of October 11th and will be followed by an evening welcome social. The conference will begin at 8AM October 12th and will be held at Courtyard by Marriott/The Box (the new Box Elder Event Center). Registration is open! See all the details later in the newsletter.

Our first Chapter meeting coming off our summer break is planned for Tuesday, September 12th, 2023, at the 41st Street Pizza Ranch. Dr. Rouzbeh Ghabchi with South Dakota State University will be presenting on Engineered NMA Superpave Mixtures. I would encourage everyone to arrive around 11:30am and grab some food and socialize with your peers prior to the start of the presentation.

TREASURER'S REPORT

BY SCOTT LAVOY, PE

Previous General Fund Balance	4/28/2023	\$ 19,255.22
--------------------------------------	------------------	---------------------

Deposits:

Awards Banquet Revenue	\$ 2,972.70
Fall Conference Revenue	\$ 11,816.88
2022-2023 Newsletter Ads	\$ 584.25

Total Deposits:	\$ 15,373.83
------------------------	---------------------

Expenses:

Board Meeting Expenses	\$ (108.00)
PO Box Renewal	\$ (226.00)

Total Expenses:	\$ (334.00)
------------------------	--------------------

Total General Fund Balance:	\$ 34,295.05
------------------------------------	---------------------

Previous Scholarship Fund Balance	4/28/2023	\$ 8,177.11
--	------------------	--------------------

Deposits:

2022 Golf Outing Revenue	\$ 218.00
--------------------------	-----------

Total Deposits:	\$ 218.00
------------------------	------------------

Expenses:

SDES Scholarships	\$ (10,000.00)
-------------------	----------------

Total Expenses:	\$ (10,000.00)
------------------------	-----------------------

Total Scholarship Fund Balance:	\$ (1,604.89)
--	----------------------

Total Account Balance	9/6/2023	\$ 32,690.16
------------------------------	-----------------	---------------------



UPCOMING EVENTS

Eastern Chapter September Monthly Meeting IN PERSON Tuesday, September 12th at Pizza Ranch (41st Street Location)

- Dr. Rouzbeh Ghabchi with South Dakota State University will be presenting on Engineered NMAS Superpave Mixtures.
- Lunch at 11:30; Meeting starts at noon
- WebEx option available. Look for the WebEx login information elsewhere in the newsletter,

2023 Fall Professional Development Hour (PDH) Conference on Wednesday, October 11th to Thursday, October 12th in Box Elder/Rapid City at the Courtyard by Marriott and The Box, the new Box Elder Event Center.

No October Monthly Meeting! See you at the Fall Conference!

September 2023

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MONTHLY MEETING

Please join us **in-person** for the monthly Eastern Chapter SDES Meeting at the Pizza Ranch Meeting Room on 41st Street.

Tuesday, September 12th

Lunch starts at 11:30 am and the meeting begins at noon

Dr. Rouzbeh Ghabchi with South Dakota State University will be presenting on Engineered NMAS Superpave Mixtures. See more information on the following page.

We look forward to seeing you in person, but if you'd like to join us virtually via WebEx, please see the information below.

We have set up a recurring meeting for the rest of the year, so the meeting information will stay the same until the end of the year (May 2024). Members can also find the link if they log in to the website and click on Membership Meeting Information under the Members Only item in the left hand menu.

<https://sdes.webex.com/sdes/j.php?>

[MTID=mc91a4747132dd74cdcdb0e0493b22356](https://sdes.webex.com/sdes/j.php?MTID=mc91a4747132dd74cdcdb0e0493b22356)

Meeting number: 2464 774 4807

Password: ERt323BNuYv

Join by video system

Dial 24647744807@sdes.webex.com

You can also dial 173.243.2.68 and enter your meeting number.

Join by phone

1-650-479-3208 Call-in toll number (US/Canada)

Access code: 246 477 44807

MONTHLY MEETING SUMMARY

BY ROUZBEH GHABCHI

A Laboratory and Field Study of Engineered NMAS Superpave Mixtures of the City of Sioux Falls

Rouzbeh Ghabchi, Ph.D., P.E.

Associate Professor of Civil and Environmental Engineering

South Dakota State University (SDSU)

The need for an economically feasible, reliable, sustainable, constructible, and resilient transportation system is becoming increasingly evident due to shrinking budgets, expanding demand, capacity limitations, evolving environmental standards, and resource constraints. Improved pavement preservation techniques and optimized engineering parameters are the principal starting point for addressing the preceding needs. An expanded toolbox of pavement designs, materials, and engineered solutions is necessary for meeting these challenges. Given the size and impact of the Sioux Falls metropolitan, the City of Sioux Falls (CSF), the largest urban area in the Dakotas, is facing these challenges on a much larger scale. Therefore, Sioux Falls is the ideal crucible for expanding and developing the tools necessary to meet the foregoing challenges. A core of older infrastructure in the central areas of the city, as well as an ever-expanding need for resilient infrastructure development on its periphery, amplifies the scale of the challenge but also multiplies the benefits of a multifaceted toolbox approach to pavement maintenance, preservation, engineering standards, and holistic pavement selection criteria for new and reconstructed facilities.

To respond to this need and gain a clear picture of asphalt mix properties, different tests capable of characterizing rutting, fatigue cracking, low-temperature cracking, and moisture-induced damage potential should be conducted. In close collaboration with the Dakota Asphalt Pavement Association (DAPA), the research team at SDSU has proposed developing a toolbox of different Thin-Lift Overlay (TLO) options for the CSF. To this end, it is proposed to conduct Hamburg wheel tracking, semicircular bent, tensile strength ratio, 4-point flexural beam, disc-shaped compact tension test, Texas overlay test, and indirect tensile asphalt cracking test following AASHTO T 324, ASTM D 8044, AASHTO T 283, AASHTO T 321, ASTM D7313, TEX-248-F, and ASTM D8225 standard methods, respectively. Test results will be analyzed, and the effectiveness of using polymer-modified asphalt (PMA), highly polymer-modified asphalt (HiMA), reclaimed asphalt pavement, and fiber-reinforced asphalt concrete (FRAC) in TLO mixes used by the CSF to minimize pavement distresses in overlay projects will be determined. More specifically, the effects of utilizing PMA, HiMA, FRAC, and RAP in TLO mixes on their resistance to rutting, cracking, and moisture-induced damage are proposed to be studied. In addition to laboratory tests, pavement sections are proposed to be visited periodically, and any signs of pavement distress at each test section will be documented. This presentation will summarize the proposed work and the related ongoing efforts.

2023 SDES FALL PROFESSIONAL DEVELOPMENT HOUR (PDH) CONFERENCE

Join us for the
SDES 2023 Fall PDH Conference
in Rapid City and Box Elder, October 11th and 12th, 2023!
Visit the conference website [HERE](#).

The SDES Black Hills Chapter invites you to the 2023 Fall Professional Development Hour (PDH) Conference in Rapid City and Box Elder. The exploding new growth and ongoing changes in the Rapid City and Box Elder communities -- and the Hills in general -- bring a new set of challenges and the need for new, top-notch engineering solutions. Join us at the 2023 Fall PDH Conference for a cutting-edge project tour, exceptional educational opportunities, and plenty of networking time!

Register by September 20th to get the Early Bird Conference Rate!

[Register Here](#)

With up to 8.5 hours of interactive PDH including educational sessions and a project tour, plus a social event and exhibitor area -- the conference will be the perfect chance to learn about a variety of new topics, processes, and projects while catching up with colleagues, clients, and industry partners!

Wednesday, October 11th, will kick off with an on-site tour of the City of Rapid City Water Reclamation Facility. Follow up the tour and join us for the Welcome Social on Wednesday evening for an excellent opportunity to catch up with colleagues and friends! Thursday is a full day at the Courtyard by Marriot | The Box Event Center. Join us for a big breakfast to fuel up for a day of educational sessions covering a wide array of engineering topics.

[See the Schedule Here](#)

Room reservations must be made no later than September 15th to receive the conference room rate. A block of rooms has been reserved at the conference hotel, the Courtyard by Marriot, for Wednesday, October 11th, for just \$74 plus taxes and fees. Please book your room directly through the link below and help us meet our hotel requirements by reserving your room at the conference hotel.

[Reserve Hotel Here](#)

SDES Conferences and activities would not be possible without the generous sponsorships and partnerships with our friends in the industry. Thank you for the continuous involvement throughout the year that supports our scholarship fund, the many other activities that help encourage future engineers, and the events that support our other community and industry programs. Of special note -- because it has been so long since we've been to the Rapid City | Box Elder area -- we're adding the opportunity for our industry partners to host a booth and spend some extra time with our conference attendees. Learn all about SDES and Conference Sponsorship and Partner opportunities by clicking on the button below.

[Sponsor and Exhibit](#)

If you have any other questions, please contact Nancy at the SDES office at 605.951.1004 or sdengineeringsociety@gmail.com.

2023 SDGS GOLF OUTING SUMMARY

BY KENT ODE, PE

The annual Eastern Chapter Golf Outing was held at the Brandon Municipal Golf Course on August 10th. We had a record turnout this year with 80 golfers and 30-hole sponsors. It was amazing to see how many people came out and golfed this year. I would like to thank all the sponsors, because the success of the golf outing is due to your continued support. We continued our tradition of having some great raffle prizes donated this year as well.

I would also like to thank all the volunteers who took time out of their day to help during the golf outing and who helped get this event organized. This event would not be possible without the help of so many of our members. The golf outing continues to be our Chapter's largest fundraiser, so thank you to everyone for the donations, your time, and your continued support.

Kent Ode

SDGS Eastern Chapter Event Coordinator

CONGRATULATIONS TO OUR PIN PRIZE WINNERS!

- Closest to the Pin on #2: Matt Dailey
- Longest Put on #9: Derek Kosakowski
- Longest Drive on #16: Zane Hiller
- Closest to the Pin on #17: Jared Haskins
- Longest Put on #18: Gabe Laber



CONGRATULATIONS TO OUR GOLF WINNERS!

- 1st Flight, 1st Place: Branson Tolier and Trace Vilbrandt
- 1st Flight, 2nd Place: Cody Woessner and Nole Harrington
- 2nd Flight, 1st Place: Travis Clark and John Desens
- 2nd Flight, 2nd Place: Clint Ehlers and Trevor Ward

CONGRATULATIONS TO OUR RAFFLE WINNERS!

- | | |
|------------------|----------------|
| • Bayley Colemer | • Paul Korn |
| • Lance Mayer | • Ryan Johnson |
| • Bob Babcock | • Nate Jibben |
| • Chris McKillop | • Matt Carlson |







2023-2024 OFFICERS AND CHAIRPERSONS

Officers

President	Devin Clay, PE
President Elect	Riley Rinehart, PE
Vice President	Jacob Maras, PE
Secretary/Treasurer	Scott LaVoy, PE
Chapter Director(1st term)	Paris Marcy
Chapter Director(2nd term)	Elizabeth Sobania, EIT
State Director	Abby Nelson, PE
Past President	Joshua Peterson, PE

Committees

Nominating Committee	Lee Kaffar, BA
MATHCOUNTS	Karin Lang, PE
Scholarship	Lance Mayer, PE
Events Coordinators	
E-Week	Paris Marcy
Winter Social	Kent Ode, PE
Golf Outing	Kent Ode, PE
Awards Banquet	Jedidiah Reimnitz, PE
Awards	Wes Philips, PE
Audio/Visual IT	Chad Stensland, PE
Newsletter	Vani Jain
Membership List	Myron Adam, PE

Eastern Chapter of SDES Goals

- To promote the licensed practice of engineering and to provide learning opportunities that enable licensed engineers to maintain practice competency;*
- To maintain high ethical standards for the practice of engineering and lead the profession in adhering to these principles:*
- To protect the public health, safety, and welfare; while being good stewards of the environment;*
- To incorporate engineering principles and perspectives in government decisions that protect the public; and*
- To consider community service a professional obligation.*

SDES Mission Statement

SDES is the state society of engineers from all disciplines that promotes the ethical and competent practice of engineering, advocates licensure, enhances the image of its members, and advocates legislation and public policy for the betterment of human welfare and the profession.

Webex Login Instructions

SDES September Monthly Meeting

**Meeting available on Webex on
Tuesday, September 12th at Noon
(CST)**

Meeting number (access code):
2459 789 4089

Meeting password: X78kekBMzX2

Join from the meeting link:

[Click here](#)

For any and all newsletter articles, additions, edits, corrections, and important dates contact:

Vani Jain
HDR
101 S. Phillips Avenue, Suite 401
Sioux Falls, SD 57104
605-977-7753
Vani.Jain@hdrinc.com

For all *State Society* membership information and other business, contact:

Nancy Hoines
SDES Executive Director
PO Box 1076
Pierre, SD 57501
605-951-1004
sdengineeringsociety@gmail.com

Ideas transform communities



Sioux Falls 605.977.7740
Rapid City 605.791.6100

hdrinc.com



Designing Solutions for community growth

As a national leader with long-time relationships in water-focused services, Bartlett & West is your ally for success.

Bartlett & West

2921 E. 57th Street

Sioux Falls, SD

www.bartlettwest.com



Since 1913, HR Green has provided solutions that build communities and improve lives.

▶ SIOUX FALLS ▶ HRGREEN.COM



Vibration Monitoring, Construction Administration, Civil Engineering & Land Surveying

Call us to discuss your project needs!

www.sayreassociates.com • Phone: (605) 332-7211

CREATING & SOLVING FOR A SUSTAINABLE FUTURE.

Ulteig leverages the expertise, curiosity and collaboration of our team to create innovative solutions in Power, Renewables, Transportation and Water throughout North America.

Ulteig

5701 S. Corporate Place, Suite 1
Sioux Falls, SD 57108
605.323.2306

www.ulteig.com



GEOTEK ENGINEERING & TESTING SERVICES, INC.

Resources for Design and Construction

909 East 50th Street North
Sioux Falls, South Dakota

P: 605-335-5512 F: 605-335-0773

www.geotekeng.com

Geotechnical • Construction Materials/NDT
Environmental • Indoor Air Quality/CIH



Streets • Sewer • Drainage
Water • Airports • GIS
Electrical Power

Trusted. Professional. Solutions.

Four locations including
Sioux Falls, SD
605-339-4157

dgr.com email:dgr@dgr.com



SCH_{EM}MER



ARCHITECTURE



ELECTRICAL



CIVIL/SITE



GEOTECHNICAL



MECHANICAL



TRANSPORTATION



STRUCTURAL



WATER/WASTEWATER

SCH_{EM}MER.COM | 605.332.7850