

2024 New Mexico Transportation and Construction Conference

Las Cruces Convention Center, 680 E University Ave, Las Cruces, NM 88001

Las Cruces New Mexico

April 17-19, 2024

Navigating Tomorrow's Infrastructure: Innovations in Transportation and Construction Engineering

<https://engrnm.nmsu.edu/professional-development/conferences/transcon.html>

Hosted by the College of Engineering at New Mexico State University
in collaboration with



New Mexico Department of Transportation (NMDOT), American Planning Association-New Mexico (APA-NM), American Society of Civil Engineers (ASCE)-New Mexico Section, Associated Contractors of New Mexico (ACNM), American Council of Engineering Companies-New Mexico, and Federal Highway Administration-New Mexico Division



2024 New Mexico TransCon Conference Co-Chairs:

Craig M. Newton, Ph.D. and Qianyun (Gloria) Zhang, Ph.D., New Mexico State University

Tuesday, April 16, 2024

12:00 p.m. **15th Annual Golf Tournament Fundraiser, NMSU Golf Course**

Organized by the NMDOT District 1 Highway Employees Association (H.E.A.)
to benefit the ASCE Student Chapter at NMSU

Contact: Ami Evans, Ami.Evans@dot.nm.gov



8:00 a.m. Sponsor and vendor booth registration and set-up.

Room: Hallway

10:00 a.m. Attendee registration opens.

1:00 p.m. **Opening Session**

Moderator: Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Welcome

Speakers: Craig Newton, Ph.D. and Lakshmi Reddi, Ph.D., P.E., Dean, NMSU College of Engineering

Room: Exhibit Hall

1:20 p.m. **Opening Remarks from New Mexico's Lieutenant Governor** (invited)

Introduction: _____, Wilson & Company

Speaker: Howie Morales, Ph.D., Lieutenant Governor, State of New Mexico

1:40 p.m. **Opening Remarks from New Mexico's Secretary of Transportation** (invited)

Introduction: _____, Wilson & Company

Session Moderator: Lakshmi Reddi, Ph.D., P.E., Dean, NMSU College of Engineering

Speaker: Ricky Serna, Cabinet Secretary, New Mexico Department of Transportation

2:20 p.m. **Update from the American Society of Civil Engineers**

Introduction: _____, Wilson & Company

Speaker: Marsia Geldert-Murphey, P.E., F.ASCE, President, American Society of Civil Engineers (ASCE) Global

2:50 p.m. **Announcement: Booth Champions Challenge**

Introduction by Craig Newton, Ph.D., New Mexico State University

Speaker: _____, Stantec

3:00 p.m. **Break and Vendor Exhibits**

A refreshment station is located outside the ballrooms at the east end of the building.

Room: Hallway

Wednesday, April 17, 2024

3:30 – 5:00 p.m.

Room: Ballroom 1

Track 1: Transportation Research

Moderator: TBA

- Title 1:** *What Goes into Producing the Concrete, Asphalt, and Precast/Prestressed Products of Tomorrow, Today?*
Presenter: Stanley P. Jobe, Owner, Jobe Materials, L.P.
- Title 2:** *Energy Impacts of Traffic-Smoothing Cruise Controllers on Mixed Traffic*
Presenter: Jose Carlos Acedo Aguilar, Graduate Student, University of Texas-El Paso
- Title 3:** *Accelerated Sulfate Attack Testing*
Presenters: Saleh Mousavinezad and Craig Newton, Ph.D., New Mexico State University
- Title 4:** *Supplementary Cementitious Materials to Mediate Alkali-Silica Reaction*
Presenters: Judit Garcia and Craig Newton, Ph.D., New Mexico State University

Wednesday, April 17, 2024

3:30 – 5:00 p.m.

Room: Exhibit Hall

Track 2: Transportation Safety

Moderator: Daphne Espejel-Garcia, Ph.D., Engineering Faculty, Universidad Autónoma de Chihuahua

- Title 1:** *Road Infrastructure Safety – A Storymap Collection of Road Safety Audits in New Mexico: 2012-2023*
Presenter: Alma D. Pacheco, GIS Analyst, NMDOT Planning Division-Multimodal Planning and Programs Bureau
- Title 2:** *Increasing Driver Awareness with Connected Work Zones*
Presenter: Kirk Thrasher, Southwest Regional Sales Manager, Horizon Signal Technologies, Inc.
- Title 3:** *NMDOT RSA Guidebook*
Presenter: Paul Barricklow, PE, PTOE, Lee Engineering
- Title 4:** *Intelligent Urban Mobility: Channeling Data for Enhanced Traffic Safety in Chihuahua, Mexico*
Presenter: Daphne Espejel-Garcia, Ph.D., Engineering Faculty, Universidad Autónoma de Chihuahua

Wednesday, April 17, 2024

3:30 – 5:00 p.m.

Track 3: Bridge Infrastructure Construction

Room: Ballroom 2

Moderator: Kimberly Coleman, P.E, Engineering Manager, NMDOT Bridge Bureau

Title 1: *Sunport Blvd Extension: Paving the Way for Future Infrastructure*
Presenter: Logan Brandenburg, P.E., Bohannon Huston, Inc.

Title 2: *Eliminating a 100-Mile Detour – Gila River Bridge Slides*
Presenters: Robert Ringwald, P.E., S.E., Associate Vice President, AECOM, and Ben Ansley, P.E., Senior Bridge Engineer, AECOM

Title 3: *4th Street Over I-40 Bridge Slides*
Presenters: Robert Ringwald, P.E., S.E., Associate Vice President, AECOM, and Ben Ansley, P.E., Senior Bridge Engineer, AECOM

2024 New Mexico TransCon

*Navigating Tomorrow's Infrastructure:
Innovations in Transportation and
Construction Engineering*



Thursday, April 18, 2024

7:00 a.m. **Breakfast:** Assorted Breakfast Burritos and Salsas, Fruit Brochettes, Coffee, Tea, Juice

Room: Exhibit Hall

2024 Student Poster Session and Competition

Moderator: Qianyun (Gloria) Zhang, Ph.D., Assistant Professor, Department of Civil Engineering, NMSU

Thursday, April 18, 2024

8:15 – 9:45 a.m.

Track 1: Innovation and Technology

Room: Ballroom 1

Moderator: Edward Halbig, NMDOT Research and Climate Bureau Chief

Title 1: *An Impact Evaluation of Strategic Cyberattacks on Autonomous Vehicles: Safety, Mobility, and Energy Consumption*

Presenter: Fernando Sepulveda, Undergraduate Research Assistant, University of Texas-El Paso

Title 2: *Remote Sensing on Highways: Inventory and Evaluation with Photogrammetry for Roads Conservation*

Presenter: Miguel Mendez, M.E., Engineering Faculty, Universidad Autónoma de Chihuahua

Title 3: *Multidimensional Modeling for Multidimensional Projects: 2D Hydraulic Modeling for Highway Projects Across New Mexico*

Presenters: Vince Steiner, P.E., CFM, Water Resources Engineer, Bohannon Huston, Inc. and Madeline Olivas, P.E., Water Resources Engineer, Bohannon Huston, Inc.

Thursday, April 18, 2024

8:15 – 9:45 a.m.

Track 2: Communities and Environment

Room: Ballroom 2

Moderator: Marisa Maez, Senior Strategic Communications Consultant, HDR

Title: *Connecting with Remote and Rural Communities: Simple Methods to Create Meaningful Public Engagement.*

Panelists:

Marilyn Ochoa, Field Operations Supervisor, Federal Highway Administration

Jennifer Mullins, NEPA Public Engagement Specialist, New Mexico Department of Transportation

Mo Moabed, P.E., County Engineer, Doña Ana County, New Mexico Public Works Department

Vernon Lujan, Deputy Chief Operations Officer and Chairman of the Northern Pueblos

Thursday, April 18, 2024

8:15 – 9:45 a.m.

Track 3: Funding

Room: TBA

Moderator: TBA

- Title 1:** *Electrification Lifecycle: From Funding to Design*
Presenter: Michael Groh, AICP, and Dora Mikete, AICP, PP, Sam Schwartz
- Title 2:** *Connecting Capital to Communities*
Presenter: Boya Dai, AICP, and Robert McHaney, AICP, CTP, The Goodman Corporation
- Title 3:** *Leveraging Public Private Partnership to Increase Safety and Connectivity on NM 109/Jarales Rd*
Presenters: Sandra Lopez, P.E., Technical Support Engineer, New Mexico Department of Transportation, and Stephen Lujan, P.E., Transportation Engineer & Project Manager, Wilson & Company

9:45 a.m.

Break and Vendor Exhibits

A refreshment station is located outside the ballrooms at the east end of the building.

Room: Hallway

Thursday, April 18, 2024

10:00 – 11:30 a.m.

Track 1: Infrastructure Maintenance

Room: Ballroom 1

Moderator: Zhe Wan, Ph.D., Assistant Professor, NMSU Department of Civil Engineering

- Title 1:** *Enhancing Road Network Performance with Cost-Effective Rehabilitation Techniques*
Presenter: Jenna Bowers, P.E., Recycling and Stabilization Innovation Manager, Ingevity Pavement Technologies
- Title 2:** *Survival Life and Life-Cycle Cost Analysis of Airfield Pavement Markings*
Presenter: Zhe Wan, Ph.D., Assistant Professor, NMSU Department of Civil Engineering
- Title 3:** *City of Albuquerque Complete Streets Maintenance Program*
Presenters: Bridgete Garret, Project Manager, Department of Municipal Development, City of Albuquerque and Andrew Sutliff, P.E., Lead Civil Engineer, WSP USA Inc.
- Title 4:** *Enhancing Culvert Capacity Assessment Through Regression Analysis of DEM Data*
Presenters: S.M. Asaduzzaman Reshad, Huidae Cho, Ph.D., P.E., CFM, GISP, New Mexico State University

Thursday, April 18, 2024

10:00 – 11:30 a.m.

Track 2: Construction

Room: Ballroom 2

Moderator: TBA

Title 1: *Techniques to Maximize Your Construction Resources*

Presenter:

Title 2: *Communication in Construction with AI*

Presenter:

Title 3: *Buy America Build America - NMDOT Update*

Presenters:

Title 4: *To be announced.*

Presenters:

Thursday, April 18, 2024

10:00 – 11:30 a.m.

Track 3: Transportation Safety

Room: TBA

Moderator: TBA

Title: *Transportation Safety, a Vision for Tomorrow*

Panelists:

Using New Mexico's Crash Data Dashboard. - Tommy Myszk, P.E., RSP1, Highway and Traffic Safety Engineer and Project Manager, Jacobs Engineering

Examining New Mexico's Interstates Through a Safety Lens. - Mahdi Rajabi, Ph.D., Roadway Safety Technologist, Jacobs Engineering

Vulnerable Road User Safety in New Mexico. - Brandon Gonzalez, AICP, Principal, SW Regional Lead, Alta Planning + Design, Inc.

Strategic Highway Safety Plan for New Mexico. - Jason Coffey, Technical Unit Supervisor, Multimodal Planning and Programs Bureau, NMDOT

Thursday, April 18, 2024

11:30 a.m. **Break and Vendor Exhibits**

Room: Hallway

11:45 a.m. **Keynote Luncheon**

Room: Exhibit Hall

Moderator: Craig Newtson, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Keynote Address: Marsia Geldert-Murphey, P.E., F.ASCE, President, American Society of Civil Engineers (ASCE) Global

Recognitions and Scholarship Awards

Dwight David Eisenhower Transportation Fellowships

Sam Maggard Endowed Transportation Engineering Scholarship

Presented by Craig Newtson, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

ACNM Scholarships

Presented by Brian Roche, ACNM Scholarships Committee

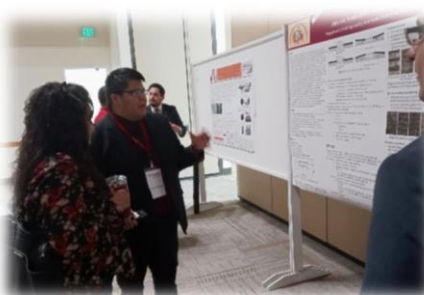
ASCE New Mexico Section scholarships

Presented by Logan Brandenburg, PE, ASCE New Mexico Section President

1:30 p.m. **Break and Vendor Exhibits**

Room: Exhibit Hall

A refreshment station is located outside the ballrooms at the east end of the building.



Thursday, April 18, 2024

1:45 – 3:15 p.m.

Track 1: Innovation and Technology

Room: Ballroom 1

Moderator: TBA

Title 1: *Advancing Innovation Through Parametric Storm Drain Parts*

Presenters: Chris Harman, P.E., National Director of Digital Delivery and Innovation for WSP's U.S. Transportation and Infrastructure business; and, Amanda Ramirez, Engineer Technician V, North Region Design, NMDOT.

Title 2: *The Power of Geospatial Technology in SUE and Utility Coordination*

Presenters: John Gallegos, CEO, CSTi; David Acosta, P.S., President, CSTi; Christina Preas, P.E., SAM

Title 3: *Nondestructive Testing for Asphalt Pavement*

Presenter: Monica Jurado, Pavement and Materials Engineer, FHWA Pavement and Materials Resource Center

Title 4: *The New Mexico State Travel Demand Model Program: Another Tool in the Toolbox*

Presenter: David A. Nelson, Travel Demand Modeler, NMDOT

Thursday, April 18, 2024

1:45 – 3:15 p.m.

Track 2: Transportation Safety

Room: Ballroom 2

Moderator: TBA

Title: *“Walk the Walk”: Making NM Roadways Safer for Pedestrians*

Panelists:

Part I: *State of Pedestrian Safety*, Brandon Gonzalez, Principal and the Southwest Regional Lead, Alta Planning + Design; Alexis Version, Senior Transportation Planner and Planning Practice Lead, Horrocks

Part II: *NMDOT Ped Safety Action Plan Update*, Samuel Jensen, Bicycle, Pedestrian, and Equestrian Coordinator, NMDOT

Part III: *Implementation of Pedestrian Countermeasures*, Claire Woodman, Senior Project Manager, Horrocks

3:15 p.m.

Break and Vendor Exhibits

A refreshment station is located outside the ballrooms at the east end of the building.

Thursday, April 18, 2024

3:30 – 5:00 p.m.

Track 1: Structural Engineering

Room: Ballroom 1

Moderator: TBA

Title: *BIM and AI: A Powerful Combination for the Future of Infrastructure Engineering*

Part 1: *From Blueprints to BIM: The 3D Shift Transforming Civil Engineering*

Presenter: Terry Walters, Technology Specialist, Stantec

Part 2: *Digital Delivery, MALD, and Construction*

Presenter: Brad Hollister, P.E., Infrastructure Digital Practice Team, Stantec

Part 3: *AI Revolution: Transforming Civil Engineering and Beyond*

Presenter: Terry Walters, Technology Specialist, Stantec

Thursday, April 18, 2024

3:30 – 5:00 p.m.

Track 2: Communities and Environment

Room: Ballroom 2

Moderator: Ruinian Jiang, Ph.D., P.E., Professor, NMSU Department of Engineering Technology

Title 1: *New Mexico's Wildlife Corridors Action Plan – Highlights and Implementation*

Presenter: James Hirsch, Wildlife Coordinator, NMDOT

Title 2: *Reaching Communities Across New Mexico – A closer look at NMDOT's Guide to Public Involvement*

Presenters: Jennifer Mullins, NEPA Public Engagement Specialist, NMDOT; Nick Fazio, Communications and Public Involvement Manager, WSP; Jennifer Hyre, Assistant Vice President, Environmental Planning, WSP

Title 3: *How Quick Build Can be the Right Tool for Your Project*

Presenters: Stephanie Shaw, Principal and General Manager, West Coast, Sam Schwartz and Dorottya (Dora) Miketa, AICP, PP, Associate at Sam Schwartz

Title 4: *LANL Transportation Evolution*

Presenters: Jay Fought, Transportation Director and, Elliot Anderson Chavanne, Electric Vehicle Infrastructure Coordinator, Los Alamos National Laboratory

Friday, April 19, 2024

7:00 a.m. **Breakfast:** Assorted breakfast sandwiches and salsas, Whole Bananas, Assorted Danishes
Coffee, Tea, Juice

Room: **Exhibit Hall**

Friday, April 19, 2024

8:00 – 9:30 a.m.

Track 1: Infrastructure Management

Room: **TBA**

Moderator: TBA

Title: *NMDOT Culvert Asset Management Program (CAMP) Update: Successes, Challenges, and Its Future*

Panelists:

Scott Armstrong P.E., V.P. / Sn. PM, Bohannon Huston, Inc.

Dr. Douglas Cortes Ph.D., Harold Foreman Professor, Civil Engineering Department, New Mexico State University

Dr. Claudia Mara Wilson, Ph.D., Associate Professor, Civil and Environmental Department, New Mexico Institute of Mining and Technology

Jeanetta Wyman, GIS/IT, NMDOT

Susan Lime P.E., Drainage Design Bureau, NMDOT

David Trujillo Jr. P.E., MASCE, Drainage Design Bureau, NMDOT

Friday, April 19, 2024

8:00 – 9:30 a.m.

Room: **Exhibit Hall**

Track 2: On Our Minds: Caring for our Mental Health

Moderator: Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Presenter: Mike Schneider, VP, CPO, Baker Concrete Construction

Friday, April 19, 2024

9:30 a.m.

Break and Vendor Exhibits

A refreshment station is located inside the Exhibit Hall.

Room: **Hallway**

Friday, April 19, 2024

9:45 a.m.

Announcement: Winners of the Booth Champions Challenge

Room: **Exhibit Hall**

Moderator: Craig Newton, Ph.D., NM TransCon Chair; Department Head, NMSU Civil Engineering

Speaker: _____, Stantec

Friday, April 19, 2024

10:00 a.m. – 12:00 p.m.

Engineering Ethics 2024

Room: **Exhibit Hall**

Moderators: J. Phillip King, Ph.D., P.E., retired professor, Department of Civil Engineering, New Mexico State University; and, Ken White, Ph.D., P.E., Regents Professor Emeritus, New Mexico State University

Panelists:

TBA

12:00 p.m.

Student Poster Awards

Moderator: Qianyun (Gloria) Zhang, Ph.D., New Mexico State University

12:30 p.m.

Closing Remarks

2024 New Mexico Transportation and Construction Conference

Conference Planning Committee:

Conference Planning Committee Co-Chairs:

Craig Newton, New Mexico State University

Qianyun Zhang, New Mexico State University

Committee Members:

Paola Bandini, New Mexico State University

Logan Brandenburg, ASCE New Mexico Section

Huidae Cho, New Mexico State University

Kimberly Coleman, New Mexico Department of Transportation

Alvin Dominguez, ASCE New Mexico Section

Ahmed Elaksher, New Mexico State University

Daphne Espejel Garcia, Universidad Autónoma de Chihuahua

Roy Gibson, ASCE New Mexico Section

Andy Hume, Las Cruces International Airport / American Planning Association-New Mexico

Ruinian Jiang, New Mexico State University

Samar Khalil, New Mexico State University

Brian Legan, Associated Contractors of New Mexico

Andreas Linnan, New Mexico Department of Transportation

Ross Lujan, American Council of Engineering Companies-New Mexico

Sara Patricolo, New Mexico State University

Jerry Paz, ASCE New Mexico Section and Region 6

Gisela Perez, New Mexico State University

Albert "Bert" Thomas, American Council of Engineering Companies-New Mexico

Max Valerio, Federal Highway Administration – New Mexico Division

Hao Yin, New Mexico Department of Transportation

