

Breakout Sessions

[Breakout Session 1 - Tuesday, October 25 | 1:15 - 2:15 PM](#)

- [78: At-Grade Railroad Crossings](#)
- [40: Preview of UDOT Design Manual Drawings - Bikeways](#)
- [06: Pedestrian Comfort Convenience Access and Safety](#)
- [68: If We Build It Will They Come?: AT Mode Shift Tool](#)
- [92: 2022 Overhead Sign/VMS Structural Standards for Construction Inspection and Contractors](#)
- [67: UDOT Digital Construction Overview](#)
- [103: Expanding Opportunity, Equity, and Inclusion in State Government](#)
- [75: New Standards for Mitigating Utility Risk](#)
- [29: Maintenance and Construction Innovation Workshop](#)
- [108: Zero Fatalities - A Frank Discussion](#)
- [110: Stop the Bleed Training](#)

[Breakout Session 2 - Tuesday, October 25 | 2:45 - 3:45 PM](#)

- [82: Take it to the limit! Performance metrics at UDOT](#)
- [51: Colorado SMART 25 Managed Motorways Pilot Project](#)
- [11: Evaluating the Safe Speed Limit Setting Tool](#)
- [26: Access to Opportunities: a New Project Level Tool](#)
- [63: Stormwater Improvements at UDOT Maintenance Sheds](#)
- [61: Thermal Evaporators at UDOT Maintenance Stations](#)
- [70: UDOT ROW Digital Delivery and Asset Inventory](#)
- [98: Specifications 101](#)
- [16: Advancing Transportation Equity One Step at a Time](#)
- [48: Little Cottonwood EIS - Public Information for Controversial Projects](#)
- [111: Stop the Bleed Training](#)

[Breakout Session 3 - Tuesday, October 25 | 4:00 - 5:00 PM](#)

- [62: Survey123 for Stormwater Data Collection](#)
- [85: Good Data = Good Decisions](#)
- [44: Central Construction Updates](#)
- [76: 200 South Transit Corridor Plan - Doubling Down on Bus Transit in SLC](#)
- [18: Bringing Private Solutions to Public Projects](#)
- [95: I-15 Grapevine Pass Rock Cuts](#)
- [96: Bridge Over Troubled Mine \(AKA Blast at Bonanza\)](#)
- [36: The Safety Costs of Design Decisions](#)
- [106: Environmental Updates](#)
- [24: From Change Management to Change Leadership](#)
- [46: Staying on Track During Construction](#)
- [112: Stop the Bleed Training](#)

[Breakout Session 4 Wednesday, October 26 | 8:15 - 9:15 AM](#)

- [30: Engaging with Diverse and Multicultural Audiences](#)
- [59: Zero Fatalities Outreach to Hispanics](#)
- [32: ROW: Helping Cities Navigate the UDOT Process](#)
- [65: ROW Acquisition 101](#)
- [35: Travel Models: Taking them to the finish line](#)
- [12: Forecasting demand for novel transport modes](#)
- [08: CADD: Overlooked features & recent updates](#)
- [55: Connecting the Dots: Strengths-Based Leadership and Employee Performance](#)
- [05: UDOT - AGC Roundtable](#)
- [41: Community Exploration for Walking & Biking Design](#)

[Breakout Session 5 - Wednesday, October 26 | 10:00 - 11:00 AM](#)

- [34: Easy-access resources for roadway safety training](#)
- [09: Evaluating systemic resiliency of Utah's highways](#)
- [47: How drones are revolutionizing UDOT projects](#)
- [71: MDS Digital Delivery Update: Project Use Case](#)
- [77: Leading and Influencing Remote Teams](#)
- [94: Inspecting Reinforcing Steel](#)
- [53: Polymers - Repairs Under Roads Without Excavation](#)
- [105: Deputy Directors Session: All Projects, All Users](#)

[Breakout Session 6 - Wednesday, October 26 | 1:45 -2:45 PM](#)

- [99: URS Tier 1](#)
- [66: UDOT Fiber Optic Training Program](#)
- [43: The Role of Big Data in Traffic Engineering](#)
- [72: Making the Grade: TIF/TTIF Prioritization Process](#)
- [27: Protecting Against the Impacts of Climate Change](#)
- [87: SDDM Updates](#)
- [88: BMM Updates](#)
- [89: GMOI Updates](#)
- [19: UDOT's Long-Range Plan & Why You Care About it?](#)
- [25: Emerging Areas Program Introduction](#)
- [02: Words Matter: Evolving language in transportation](#)
- [56: Understanding Context Classifications in the Design Process](#)
- [113: Stop the Bleed Training](#)

[Breakout Session 7 - Wednesday, October 26 | 3:45 - 4:45 PM](#)

- [100: URS Tier 2](#)
- [60: Stormwater Infrastructure Waste Management](#)
- [17: ORD Drainage: Beyond the Peak Flow](#)
- [97: Structures Emergency Plan](#)

[107: Migration Tool and Other Cool DWR Stuff](#)

[74: Leading with Influence & Trust](#)

[04: Utah Healthy Place Index - Social Determinants of Health and Overall Wellbeing](#)

[38: Why do we invest in a household travel survey?](#)

[39: Incident Command System & UDOT](#)

[114: Stop the Bleed Training](#)

Breakout Session 1 - Tuesday, October 25 | 1:15 - 2:15 PM

Session Day and Time	Assigned Room
Tuesday Oct 25 1:15 - 2:15	200A

Title: At-Grade Railroad Crossings

Learning Objective(s):

- Process to create, close or modify an at-grade railroad crossing
- Purpose of the diagnostic meeting
- At-grade railroad crossing design recommendations

Presenter(s):

Darren Eyre

Darren is a professional engineer with CRS Engineers. He has 22 years of experience in the fields of engineering and surveying. He specializes in railroad infrastructure and has played a pivotal role in coordinating, designing, and constructing hundreds of railroad projects involving railroad crossings, bridges, main lines, branch lines, yards, industry spurs, rail-served ports, and industrial parks. Darren has designed or coordinated over 300 track projects, over 40 at-grade railroad crossings, and several separated grade crossings that involve UPRR, UTA, BNSF, and many shortline railroads throughout the country.

Clint Allen

Clint has 18 years of experience in the engineering industry. He is involved in all aspects of rail projects from initial planning to final construction acceptance. He has worked on numerous rail projects throughout the western United States. Clint's experience includes railroad crossings, branch lines, yards, sidings and industry spurs. He has assisted municipalities and private industries with permitting of rail crossings and rail infrastructure.

Jesse Sweeten

UDOT

Abstract:

Railroads and at-grade crossings have been around in Utah for over 150 years. The rules and processes to create, close and modify them however, are ever changing. This presentation will discuss the process of creating, closing, or modifying an at-grade crossing. Subjects include the diagnostic field review, information that should be provided at the diagnostic, safety enhancements, design criteria, process and timeline, and current design standards for lights and gates, signal house placement, concrete and track panels, signage and striping. Other topics to be covered include railroad right of way, right of entry, flagging, utility crossings, and drainage.

Session Day and Time	Assigned Room
Tuesday Oct 25 1:15 - 2:15	200A

Title: Preview of UDOT Design Manual Drawings - Bikeways**Learning Objective(s):**

Attendees will get a sneak peak into the draft version of the UDOT Design Manual Drawings for Bikeways. They will hear why some items were not included, the engineering judgements made, and the national guidelines that these align with.

Presenter(s):

Travis Evans

Title: Active Transportation Safety Program Manager

Organization: Utah Department of Transportation

Email: travispevans@utah.gov

Bio: Travis is the UDOT Project Manager for UDOT's Design Manual Drawings for Bikeways as well as for a number of projects to develop design and construction standards to maintain safe access for people walking, rolling, and biking on state projects.

Vaughn Nelson

Title: Statewide Design Engineer

Organization: Utah Department of Transportation

Email: vanelson@utah.gov

Bio: Vaughn has been with UDOT for 10 years in design and construction. He is currently the Statewide Design Engineer. His primary responsibilities are managing and updating the roadway design standards and helping with whatever project teams need to deliver projects. He has been involved in the development and upcoming implementation of the Design Manual Drawings for Bikeways to meet current UDOT and AASHTO design requirements to accommodate all users with different abilities within the UDOT Right-of-Way.

Blair Tomten

Title: Active Transportation Designer and Project Manager

Organization: Avenue Consultants

Email: btomten@avenueconsultants.com

Bio: Blair has been working with UDOT to develop the Design Manual Drawings for Bikeways to create design guidance for roadway designers. She has also developed the UDOT Standard Drawings for Pedestrians in Work Zones and Bicyclists in Work Zones.

Abstract:

UDOT is responsible for providing transportation choices through a multimodal transportation system and the Bikeway Design Manual Drawings are part of reaching their strategic goals. There is a lot of guidance at the federal and state level to create good standards and design guidelines for the design and construction of roadways for people driving vehicles, but very limited when it comes to designing for people walking and biking. UDOT has taken the lead and gone beyond the bike lane to develop standards that create a safer and more comfortable experience for people walking and biking, while providing separation between roadway users to maintain mobility. This will be the first time consultants, planners, contractors, and others in our industry will be seeing the draft version of the UDOT Design Manual Drawings for Bikeways and Pedestrian facilities. These drawings increase the number of options available to designers and planners when laying out a new roadway or retrofitting an old one to accommodate all users and abilities.

Participants in the session will learn about the drawings themselves and why certain dimensions or elements were chosen. They will be able to ask questions throughout the session to create a discussion and provide comments on the drawings. There will also be sets of drawings for participants to mark up with questions, comments, and redlines. Attendees are encouraged to leave their name and contact info on their markups for follow-up after the meeting as the comments get addressed during the review process. Attendees will walk away from the session with an understanding of the principles behind the elements in these design manual drawings as well as the opportunity to help guide UDOT to designing roadways that are safer for all roadway users.

Session Day and Time	Assigned Room
Tuesday Oct 25 1:15 - 2:15	200B

Title: Pedestrian Comfort Convenience Access and Safety

Learning Objective(s):

Attendees will learn about UDOTs efforts to improve the comfort, convenience, access, and safety for pedestrians and cyclists. Attendees will gain a new perspective, the perspective of all users.

Presenter(s):

Rudy Bowman
Rotational Engineer
UDOT Planning
rbowman@utah.gov

Rudy Bowman has worked for UDOT for 2 years as a rotational engineer and is currently working in the central planning division. Prior to planning, Rudy worked in Region 1 design and Region 3 construction. He has a BS in Civil Engineering from Brigham Young University - Idaho. He recently became a dad to a beautiful baby girl.

Jake Farnsworth
Traffic Engineer
Kimley-Horn
jacobfarnsworth@utah.gov

Jake has experience in a variety of projects including highway safety, traffic analysis, active transportation studies, ATMS planning, Intersection Control Evaluations (ICE), and event management plans. His expertise includes the Highway Safety Manual crash prediction and application. Jake has an M.S. and B.S. in Civil Engineering from BYU and is a registered P.E. He is also a registered Road Safety Professional (RSP). In his free time, he enjoys spending time with his family, participating in obstacle course races, and pretending to be a cowboy.

Abstract:

The Road Safety Audit (RSA) is a formal roadway evaluation that identifies pedestrian-focused safety concerns, discusses solutions, and decides if or when, and how we should implement the solutions. It is conducted by an independent multidisciplinary team. Walk the Road is an on-the-ground mobility tour of a state-owned roadway. It involves UDOT staff, typically representatives from each organization with an emphasis on designers and project managers. We try to view the road from the lens of the pedestrian. We focus on comfort, convenience, access, and safety for All Users.

Session Day and Time	Assigned Room
Tuesday Oct 25 1:15 - 2:15	200B

Title: If We Build It Will They Come?: AT Mode Shift Tool

Learning Objective(s):

- Attendees will learn how to use and apply a GIS based tool that assesses the potential for an active transportation facility to shift users of the corridor from vehicle trips to bicycle trips.
- Attendees will learn how the results of this tool can help them understand the impacts the active transportation facility may have in the corridor.

Presenter(s):

Stephanie Tomlin

Stephanie Tomlin is a Transportation Program Manager at The Utah Department of Transportation (UDOT) in the Central Planning Division. She oversees modeling, data, and GIS activities within Planning, which includes the prioritization modeling the department uses to rank projects for funding consideration within the four project types of Highway, Active, Transit and First/Last Mile (connections to transit). Stephanie is also involved in active transportation planning efforts across the department, including trail extension projects, and grade separated crossing projects. Stephanie holds a masters degree from Utah State University in Bioregional Planning, she is a member of APA Utah, and is on the Board of Directors for Bike Utah.

Muna Shah

Muna Shah is the GIS Planning Manager at The Utah Department of Transportation (UDOT) in the Central Planning Division. She started as the Senior GIS Analyst at UDOT's Region 2 in 2019 and transferred over to Central in 2021. Muna is responsible for addressing the GIS needs in the division and has actively participated in major projects including long-range planning and active transportation prioritization efforts.

Abstract:

Understanding which active transportation facilities have a high potential for mode shift (from vehicle trip to a walking or biking trip) is a potent metric of success for funders seeking to make high impact transportation investments, because it helps answer the question; "If we build this multi-use trail will it reduce traffic congestion?". While this question certainly isn't the only one answered when determining whether a bicycling facility is worth the investment, it is one that is important to consider and has been difficult to answer using currently available tools. Many funding sources ask the applicant to demonstrate how the project will reduce traffic congestion, including UDOT's own Transportation Investment Fund (TIF), therefore this tool could support that process as well.

Breakout Session - Presenter Information

This session will be based on UDOT's UTRAC research; Mode Shift Potential Evaluations, which developed a method and a tool to assess the amount of trips that may reasonably switch from vehicle trips to bicycling trips based on the proximity and parallelism of origin-destination (OD) desire lines to segments for analysis. Put simply, does the segment connect OD pairs that serve many trips already. The tool functionality allows for it to operate on new and existing connections, essentially replicating a select-link analysis while avoiding the high resource costs of traditional travel demand model runs. The outputs of the tool may allow for application in large scale, rapid prioritization of proposed active transportation facilities. This alignment analysis operates by using line features created by a Utah statewide OD matrix of vehicle trips taken from Replica Places' activity-based modeling data platform.

Broad use of this tool by agencies across the state may help decision-makers have a better understanding of the reach and impact an active transportation facility could have within a community.

Session Day and Time	Assigned Room
Tuesday October 25 1:15 - 2:15	200C

Title: 2022 Overhead Sign/VMS Structural Standards for Construction Inspection and Contractors

Learning Objective(s):

- 1) Learn about details incorporated in the new standards that will facilitate construction and inspection
- 2) Learn about the inspection requirement of the specifications for these type of structures
- 3) Discover how the submittals are designed to facilitate contractor means and methods while still achieving requirements required from the structural design. Learn how the submittals are to be used in the field during construction.

Presenter(s):

Nicholas Clark
nclark@utah.gov

Nicholas Clark is a Structures Project Engineer in Design for the Utah Department of Transportation, where Nicholas is responsible for overseeing and delivering the structural pieces of the project, overseeing consultant lead designs, and providing oversight for alternative delivery projects such as Design Build, CMGC and Progressive Design Build.

Nicholas has been with UDOT for over 8 years and prior to coming to the Department he spent 14 years as a consultant designing transportation projects in California, Oregon and Washington.

He holds a bachelor's and master's degree in Civil Engineering from the University of Utah.

As part of his duties at the Department he has spent the last 7 years working on the structural standards for Overhead sign and VMS structures and will be presenting today some of the changes that are part of the new standard with specific emphasis on the inspection and construction.

Abstract:

These types of structures have been in need of an update. This presentation helps further efforts made by the Structures Division to address conflicts in construction and help provide the support that Construction Inspection Teams and Contractors need.

With the release of the updated SDDM the Structures Division is also releasing updated overhead sign/VMS structure standards that the Division has been working on for numerous years. A lot of effort has been put into these standards with the goal to improve Design, Construction and asset management efforts for these structures. There is a lot of excitement over the enhancements, but not all of the industry is aware of these changes. This is a great opportunity to bring a large group of the impacted stakeholders together in one location to show and explore the new standards.

Session Day and Time	Assigned Room
Tuesday Oct 25 1:15 - 2:15	200D

Title: UDOT Digital Construction Overview

Learning Objective(s):

Attendees will gain updated information on UDOT's Digital Delivery AID Grant Project and Digital Delivery practices, as well as gain a background of GIS tools used during construction (including Survey 123 DPR and Field Maps). This will allow attendees to prepare to implement UDOT's new tools for upcoming digital delivery construction projects.

Presenter(s):

Ken Talbot, P.E.

State Construction Engineer, UDOT

kentalbot@utah.gov

Ken brings 22 years of experience working at UDOT in construction management and design. Currently and for the last three years he has helped manage the UDOT's Central Construction department focusing on digitization of construction practices.

Nicole Williams, P.E.

Project Manager, Kimley-Horn

nicole.williams@kimley-horn.com

Nicole has 16 years of experience designing and managing UDOT projects. Her experience includes leading the team for UDOT's Digital Delivery Data and Process Development project that assisted UDOT in the development of their DD program. She is currently working with UDOT on updating the draft MDS.

Becky Hjelm, GIST

DD Preconstruction, UDOT

bhjelm@utah.gov

Becky has over 20 years of experience in GIS management, data analysis, project management, and IT development in government. She is UDOT's Project Manager for Digital Delivery and has been instrumental in the development of UDOT's DD Program.

Abstract:

UDOT is currently working on an Accelerated Innovation Deployment (AID) Grant through the Federal Highway Administration (FHWA) that focuses on the Digital Construction aspects of the project lifecycle. This presentation will focus on the 2022 construction season and the corresponding goals and software that were targeted. Specifically, the presentation will touch on the GIS tools that were developed and piloted, including Survey 123 DPR and Field Maps, as well as the challenges and benefits that the pilot projects experienced using these tools through construction.

Session Day and Time	Assigned Room
Tuesday Oct 25 1:15 - 2:15	300A-B

Title: Expanding Opportunity, Equity, and Inclusion in State Government

Learning Objective(s):

Presenter(s):

Miguel Trujillo (he/him) is a Licensed Clinical Social Worker, PhD Candidate, and the Training & Research Coordinator for the Utah Division of Multicultural Affairs (MCA). His work with MCA serves to foster inclusion and belonging across the State of Utah. With a practice and research background in mental health and education, he strives to create an educated and healthy Utah for all.

Weslie Porter is the inaugural EDIA Accelerator for the State of Utah as outlined in the One Utah Road Map. He is housed in DHRM and works to ensure inclusion and equity in policy and procedures in the employment process and employee experience. Weslie has served in multiple capacities in higher education STEM program development and in the US Army for combat operations, HR, and Victim Advocacy. He has acted as Military liaison for many middle eastern countries and state and federal agencies supporting equitable policy development and interagency collaboration.

Neelam Chand is the CEO and founder of Shift SLC, a diversity and inclusion consulting firm located in Salt Lake City, Utah. With over a decade of D&I experience, Neelam has worked with industries ranging from higher education to financial services and tech startups to break down systemic barriers and design a more equitable workplace environment. Before establishing her firm, Neelam served as SVP, Diversity and Inclusion Officer at Zions Bank. She currently serves on various social justice boards and commissions throughout the state of Utah including YWCA Utah, Utah Museum of Fine Arts, and the Utah Covid-19 Multicultural Task Force.

Abstract:

During this session, we'll hear about Equity and Inclusion initiatives from the Division of Multicultural Affairs, Department of Human Resource Management and UDOT.

Session Day and Time	Assigned Room
Tuesday October 25 1:15 - 2:15	300C-D

Title: New Standards for Mitigating Utility Risk

Learning Objective(s):

Attendees can apply newly revised ASCE 38-22 and newly published ASCE 75-22 standards properly within their project development activities to facilitate 3D design, BIM, and digital project delivery, and update and sustain utility data throughout project life by including in their project construction specifications.

Presenter(s):

Philip J. Meis, PE - Chair of ASCE 75-22, Member ASCE 38-22, ASCE Utility Engineering and Surveying Institute Governor, President UMS

Casey Brown, PE - Member ASCE 75-22, Senior Engineer AECOM

Abstract:

Utility owners are rarely contractual parties to the infrastructure project development process, yet their existing pipes and cables and support structures have significant effects on project risk, schedules and budget. Reliance upon utility owner records for design plan base conditions has not solved the problem as these records are often inadequate or incompatible for designer needs, especially within congested urban corridors. Engineers have long recognized the problems and historically, through disclaimers and onerous contract language, have passed responsibility for managing utilities along to the contractor. By doing so, not only do project costs escalate so contractors can reactively deal with unforeseen utility issues, but engineers forgo the opportunity to proactively consider and strategically address base conditions that affect public health safety and welfare in the planning and design stages.

ASCE has developed two standards, ASCE/UESI/CI 38-22 (ASCE 38) and ASCE/UESI/CI 75-22 (ASCE 75), to assist engineers in managing risk associated with utility infrastructure. Although a non-mandatory consensus standard, Colorado with minor additional language, has turned ASCE 38, now considered a best practice in many states, into a statutorily required standard for all public projects disturbing more than 1,000 square feet and 2-feet of depth.

The beneficial results observed in Colorado have Pennsylvania among other states following suit. The Engineers Joint Committee on Contract Documents (EJCDC) consisting of ASCE, NSPE, and ACEC also reference these standards as a Basic Engineering Service. ASCE 38 and ASCE 75 along with new technologies for cloud-based data management and geophysical methods for seeking out known and unknown

Breakout Session - Presenter Information

utilities, are driving new and previously untapped risk management practices and strategies for project development.

This session will present these two newly published utility standards, associated new technologies, and new legislative efforts to employ these best practices at a ubiquitous level. Attendees will learn the following: (1) High level overview of the new revision of ASCE 38 and newly published ASCE 75. (2) New geophysical and remote sensing technologies used for investigating existing utility infrastructure. (3) Utility investigation case studies with 3D utility modeling.

Session Day and Time	Assigned Room
Tuesday Oct 25 1:15 - 2:15	400

Title: Maintenance and Construction Innovation Workshop

Learning Objective(s):

- Attendees will learn about and share implementation opportunities for new homegrown maintenance and construction innovations.
- Attendees will brainstorm ways to adapt and improve innovations from other DOTs.

Presenter(s):

Winston Inoway

Winston is the Innovation Program Manager in UDOT’s Research and Innovation Division. In addition to program management, he helps to collect and document ideas and innovations. He has a background in communication and uses these skills to develop media to share implementations and innovative developments.

Quinten Klingonsmith

Quinten is UDOT's Innovation Program Coordinator. He promotes a culture of innovation by documenting innovations, facilitating UDOT's Innovation Council, and executing employee engagement initiatives. Before UDOT, Quinten was a Senior Business Analyst at Workforce Services with responsibilities for developing online training, including video, simulations and interactive learning experiences.

Brad Loveless

Brad started his career with UDOT in 2006 as a Rotational Engineer after graduating from the University of Utah. He spent 1½ years as a Roadway Design Engineer before transferring to the UDOT Willard Construction Crew where he served for over 9 years as a Field Engineer and 2½ years as a Resident Engineer. During his time in construction he has had the opportunity to work on project teams for a variety of projects including using digital delivery. Brad is a research project manager with the Research and Innovation Division

Jayson Kesler

Jayson joined UDOT in 2010. He spent over 15 years owning and growing several businesses before joining the public sector starting as a Trans Tech at the Region Two Sign and Guardrail Shed 2444. Jayson has been the Sign and Guardrail supervisor for the last 9 years and says he loves his job. He has always had a passion for training and innovation. Fun fact: His experience with innovation and his patents have allowed him to travel to several countries around the world.

Dexter Forbush

Dexter Forbush is the Lead at the Region Two Sign and Guardrail shed. He has worked in the sign industry for around 12 years and has worked at UDOT for almost ten years.

Trent Reeder

Rob Knuchel

Abstract:

UDOT has a long history of innovative thinking and executing. Employees in the field are constantly building, fabricating, modifying, and adapting products and processes to do their job more efficiently. To benefit from this culture of innovation, the solutions and ideas need to be shared across the organization.
Statement of Contribution

While UDOT is an innovative organization, we cannot afford to stop pushing the envelope of what is possible. Our employees are constantly confronted with new challenges and opportunities. As new ideas and solutions are developed, we can scale up, adapt, and improve the work of others. Transportation organizations such as No Boundaries and Build a Better Mousetrap program have collections of maintenance ideas to adopt and adapt. Our UDOT employees will benefit from exposure to other innovations that will help them do their jobs better, with less cost, and with greater safety.

Description(s) of activities, exercises, and tactics for audience engagement

This workshop will center on a conversation and brainstorm about how to implement good innovations. Leveraging the experience and ingenuity of our employees, this workshop will seek to generate excitement for innovation, suggestions and solutions to improve a situation, and a network to share knowledge.

Using UDOT case-study examples, we will have UDOT innovators share their approach and solutions. (example: Saddle Lift Sign Repair Tool, Jayon Kesler, Region Two Sign and Guardrail Shop). The workshop facilitator will then lead a discussion for how this concept could be adapted for another use, improved, or scaled to wider implementation. Solutions and tools developed from other DOT's will be discussed with a focus for implementation at UDOT. The next steps to implement will be recorded and support will be extended after the Conference.

Statement of deliverables/outcomes

Attendees will walk away from the experience with a sense of optimism and encouragement to try new things. The workshop will provide exposure to multiple ready-to-implement innovations that can be put into practice. The opportunity to network and collaborate with other employees will also be supported after the conference. Each attendee will be able to access a maintenance and construction innovation resource document with additional ideas beyond what can be discussed in the workshop.

Session Day and Time	Assigned Room
Tuesday Oct 25 1:15 - 2:15	E1

Title: Zero Fatalities - A Frank Discussion**Learning Objective(s):****Presenter(s):**

Kristen Hoschouer

Kristen has worked at UDOT for the past ten years, seven of which as the Program Administrator for the Zero Fatalities and Safe Routes Utah Programs. She holds a Bachelors in Geography from the University of Utah and a Masters in Urban Plannin and Policy from the University of Illinois at Chicago. Kristen is passionate about traffic safety and feels very strongly about reducing fatalities on Utah roadways and reaching the ultimate goal of zero fatalities.

Jeff Lewis - Central Traffic and Safety

Jeff has worked in the Transportation Engineering industry for over 16 years, including 10 years at the Utah Department of Transportation (UDOT) working in Region 2 in Roadway Design, Traffic & Safety, and Permits. Jeff now works as the Safety Programs Engineer with UDOT Central Traffic & Safety.

Robert Miles

Abstract:

Zero Fatalities is an important goal for the state of Utah. At UDOT, we're always looking for ways to improve safety, but this goal has become increasingly difficult. With record high fatalities and crashes in the last few years engineers and safety specialists have been assessing what has worked well in the past and what more we can do to save lives on our roads. Come learn and contribute to this discussion.

Breakout Session - Presenter Information

Session Day and Time

Assigned Room

Tuesday
October 25
1:15 - 2:15 PM

Draped Hallway

Title: Stop the Bleed Training

Learning Objective(s):

Presenter(s):

EmmaJayne Daw, RN, CCRN
St. Mark's Hospital

Abstract:

A person can die from a bleeding emergency in as little as three minutes. Do you know what to do in a bleeding emergency? Join us for a full training! NOTE: this session is first come, first serve and capped at 20 participants.

Breakout Session 2 - Tuesday, October 25 | 2:45 - 3:45 PM

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	200A

Title: Take it to the limit! Performance metrics at UDOT**Learning Objective(s):**

Attendees will be able to articulate the importance of performance measures and where they are used in the department

Presenter(s):

Chris Whipple
Asset Management, Program Manager
UDOT

Ryan Bailey
Performance Management, Program Manager
UDOT

Jay Aguilar
State Long Range Planning Manager, UDOT
Jay is a professional land use and transportation planner with experience working in Utah, Hawaii and California. He has worked in the public and private sector in planning, economic development and marketing. His Utah government work experience has allowed him to work at the city, county, region and now state levels from Logan to St. George. He is currently the UDOT Long Range Planning Manager.

Abstract:

Performance metrics are used to gauge progress and facilitate decision making. Where and how they are used make a difference to the work they are applied to. In this session, attendees will hear from our lead of Long Range Planning, our Statewide Asset Manager, and our Performance Management Manager. We will discuss federal v. state measures, targets, data, and where we are going with metrics in the future.

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	200B

Title: Colorado SMART 25 Managed Motorways Pilot Project

Learning Objective(s):

Attendees will learn about the first application of the Australian Managed Motorways concept in the United States, and be able to gauge whether a similar investment in technology could achieve similar results in their jurisdictions.

Presenter(s):

Scott Pitera, AICP, PMP

Senior Lead Consultant, WSP USA

Scott Pitera is a Senior Lead Consultant with WSP in Denver, Colorado, focusing on the use of technology to improve roadway congestion, safety, and funding. Since 2017, he has served as Project Manager for the CDOT Smart 25 Managed Motorways Project, the first application U.S. of the Australian TSMO concept.

Abstract:

The Colorado Department of Transportation (CDOT) has completed operations of a managed motorways pilot project along I-25 northbound between Ridge Gate Parkway and University Boulevard in the Denver Metro Area. The SMART 25 Pilot Demonstration intended to address recurring peak-period congestion and severe unreliability on this vital I-25 corridor that connects Denver’s central business district and the Southeast Denver business corridor.

The primary goal of the SMART 25 is to provide for a more efficient, productive, and reliable freeway corridor using advanced transportation management and coordinated ramp metering technologies, without expanding interstate capacity.

The concept was pioneered on the M1 Freeway in Melbourne, Australia. The M1 Managed Motorways project was able to improve flow by 4.7% and 8.4% in the mornings and evening commute (respectively), with upwards of 45% reduction in travel time variability. In addition, early performance data from the SMART 25 Pilot Project in Colorado indicates that the CARM concept has reduced evening travel times by 20%, and improved travel time reliability by 30%, despite a 40% increase in volumes due to COVID-19 travel recovery.

This presentation will provide an overview of the SMART 25 project, a description of the underlying Managed Motorways philosophy and why it was deployed in Colorado, as well as an overview of initial results. Attendees will walk away with knowledge of the concept, and a new technology based tool as an option to improve traffic performance and safety in their jurisdictions.

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	200B

Title: Evaluating the Safe Speed Limit Setting Tool

Learning Objective(s):

Attendees will gain an understanding of the Safe Speed Limit Setting Tool and Procedure and compare this with the current speed limit setting analysis in the state.

Presenter(s):

Grant G. Schultz, Ph.D., P.E., PTOE
Professor and Associate Chair
Department of Civil & Construction Engineering
Brigham Young University
gschultz@byu.edu

Dr. Grant Schultz is a Professor in the Department of Civil and Construction Engineering at Brigham Young University. He holds Bachelor of Science and Master of Science degrees in Civil Engineering from Brigham Young University, and a Ph.D. degree in Civil Engineering from Texas A&M University.

Cory Ward, EIT
Graduate Research Assistant
Department of Civil & Construction Engineering
Brigham Young University
cw3147@hotmail.com

Cory Ward is a Graduate Research Assistant in the Department of Civil and Construction Engineering at Brigham Young University. He holds a Bachelor of Science degree in Civil Engineering from Brigham Young University and is currently completing his Master of Science degree.

Abstract:

The purpose of the presentation is to report on research conducted to evaluate the Speed Limit Setting Procedure (SLS-Procedure) found in National Cooperative Highway Research Program (NCHRP) Project 17-76 for implementation on Utah roadways with the goal of aiding the agency in overall road safety surrounding speed limits. The Speed Limit Setting Tool (SLS-Tool) automates the SLS-Procedure and displays the process in a transparent way. The Procedure and Tool emphasize the importance of context by classifying roadway segments into one of four Speed Limit Setting Groups (SLSGs). The research team analyzed 29 locations that were divided into 66 uniform segments that could be individually analyzed with the SLS-Tool. Then, the suggested speed limit that resulted from the SLS-Tool were compared to the recommendations presented in the UDOT speed studies.

Using the SLS-Tool, the closest 85 th percentile speed was only suggested in 18 percent of segments, rounded-down 85 th percentile speed was suggested for 21 percent of segments, and the closest 50 th percentile was used in 54 percent of the segment suggestions. When compared to the UDOT speed study, 62 percent of the segments shared the same result as the SLS-Tool suggestion, 23 percent were a lower suggestion, and 15 percent were a higher suggestion. A high crash rate and the lack of bike lanes on urban streets were the most common reasons for a closest 50 th percentile speed suggestion. The research team recommends that UDOT use the SLS-Procedure and SLS-Tool as a reference when performing future speed studies. The use of these resources can aid an analyst in complying with the Utah guidelines on when to depart from a traditional 85 th percentile speed.

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	200C

Title: Access to Opportunities: a New Project Level Tool

Learning Objective(s):

- Attendees will better understand the access to opportunity performance measure, which looks at both mobility and proximity to determine accessibility.
- Attendees will learn about a new, user-friendly tool for calculating project-level access to opportunities.

Presenter(s):

Julie Bjornstad - WFRC

Bert Granberg - WFRC

Abstract:

A basic purpose of our transportation system is to efficiently connect residents to activities and destinations. Access to opportunities, also referred to as accessibility or ATO, combines mobility and proximity analyses to measure how well people can connect to basic needs and amenities including jobs, schools, grocery/retail, parks, community centers, and leisure activities.

Wasatch Front Regional Council (WFRC) has measured ATO for its metro area primarily through travel demand model (TDM) based output and has a number of web-based tools for exploring the Region's TDM-calculated accessibility landscape. However, a faster and more nimble method for evaluating project ATO benefit was desired to complement the TDM approach.

WFRC recently developed its new ATO Impact Tool to assess the accessibility benefit of individual or small groups of road, transit, bike, and land use projects. Built on ESRI's ArcGIS Network Analyst, the tool simulates ATO impact by editing the candidate project into the underlying baseline network or land uses, applying appropriate assumptions – such as travel time adjustments in the project vicinity – for the project, and recalculating distance-decayed travel sheds outward from each of the Region's 3,000+ traffic analysis zones (TAZs). The resulting travel sheds produce updated counts of jobs and households accessible from each TAZ and these results can be compared to the baseline and summarized for the entire WFRC Region or, at a more granular level, to explore impact on specific geographic areas.

Outputs from the ATO Impact tool, reflecting comparative accessibility benefits of each project, have now been integrated into the RTP prioritization process. The ATO metric generated by the new tool is a composite score that measures both how well residents in a location can access jobs, as well as how well

Breakout Session - Presenter Information

employers in that area can access the labor force. The two elements are combined by scaling the measures for employment areas to residential area measures using the Region's jobs per household ratio. ATO can help WFRC see gaps between residents and employment opportunities and other basic needs at a neighborhood scale. This is especially relevant for underserved populations that may benefit most from alternate forms of transportation to access key needs. The TAZ-level results of the ATO tool have been combined with Census data on racial/ethnic minority, low-income, and no-car households that form WFRC's Equity Focus Areas.

The underlying process was designed to take, at most, 20-30 minutes per project and can be applied for any geography, not just in the WFRC planning area. The tool's analysis is for a single time frame, but this can be any year for which TAZ socioeconomic projections are available (through 2050 for WFRC's Region). Initial results show that the ATO impacts of a single project are small when assessed on a regional scale—less than 1% of total regional ATO— but that there is sufficient variation among projects to differentiate them. There is also significant variation in location-specific changes in ATO that can be helpful to exploratory planning efforts and differing effects on populations, including equity focus areas.

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	200D

Title: Stormwater Improvements at UDOT Maintenance Sheds

Learning Objective(s):

- Participants will gain an understanding of the stormwater regulatory requirements that apply to UDOT facilities.
- Participants will have knowledge of the efforts by the UDOT Stormwater Team, maintenance personnel, and other staff of what is being done in order to comply with stormwater regulations.

Presenter(s):

Rhonda Thiele

UDOT Stormwater Program Manager

rhondathiele@utah.gov

Rhonda has worked in the field of stormwater management for over 30 years. She has worked for the Salt Lake County Health Department in the areas of pollution prevention and illicit discharge detection and elimination (IDDE) and then became the MS4 program coordinator for the Department of Environmental Quality. She has served as UDOT’s stormwater program manager for the last five and a half years, which provides a unique perspective after serving as UDOT’s MS4 permit writer for nearly 10 years.

Bren Edwards

Region 1 Stormwater Program Coordinator

brenedwards@utah.gov

Bren Edwards joined the UDOT stormwater team in May of 2018. He is the Region Stormwater Program Coordinator for Region 1 where his primary goal is permit compliance throughout the region’s maintenance and construction operations. Bren and his wife have two children and they love spending their time rodeoing with their kids.

Stephanie McGinnis

Region 2 Stormwater Program Coordinator

samcginnis@utah.gov

Stephanie McGinnis joined UDOT as the stormwater coordinator for Region Two in March of 2022. In her role, she helps to ensure compliance with UDOT’s Utah Pollutant Discharge Elimination System (UPDES) Municipal Separate Storm Sewer System (MS4) permit. She holds a M.S. in Biological Sciences from Montana State University.

Lenora Sullivan

Region 3 Stormwater Program Coordinator

lsullivan@utah.gov

Lenora has 25 years of experience working as an environmental scientist including hazardous waste, wildlife, wetlands, weed control and water quality. She holds a B.S. in Environmental Science from the University of Utah and loves skiing, jogging and traveling.

Jared Barton

Region 4 Stormwater Program Coordinator

jaredbarton@utah.gov

Jared has been a Region Stormwater Program Coordinator since April 2017 where his primary focus has been UDOT MS4 permit compliance. Prior to Stormwater Program Coordinator, Jared

Brandon Burrows

Stormwater Program Specialist

bburrows@utah.gov

Brandon is a Stormwater Program Specialist for the UDOT Stormwater Team. His previous roles in stormwater management include assisting the City of St. George stormwater program and managing s

Sidney Pharr

Stormwater Program Specialist

spharr@utah.gov

Sidney is a recent transplant from Savannah, Georgia, with a B.S. in Environmental Sciences and experience in wastewater treatment. She started as a UDOT Stormwater Program Specialist in September

Abstract:

UDOT was audited by the Division of Water Quality (DWQ) and Environmental Protection Agency (EPA) in 2013. The audit included document review and site visits to several Maintenance Stations across the State. The audit revealed UDOT was non-compliant in several areas including improper documentation, inadequate infrastructure and improper operational behavior. Several UDOT facilities were operating under outdated documents and site maps. Many had uncovered salt piles, were improperly capturing, re-using or discharging contaminated water, while others lacked facility inspections and staff training.

The UDOT Stormwater Team is excited to have a discussion with transportation professionals based around experience and recent improvements made at UDOT facilities. The roundtable format promotes conversation and awareness that will result in educating our transportation professionals and help UDOT become MS4 Compliant.

This session is relevant for transportation professionals because UDOT is a regulated Municipal Separate Storm Sewer System (MS4) entity under Permit No. UTS000003. As a result of the 2013 Audit findings, UDOT was issued a Consent Decree Order with financial penalties through the Department of Justice (DOJ). As a regulated MS4, UDOT is required to provide adequate infrastructure and adjust operational behavior as necessary to achieve compliance. Continual discussions, education and improvements are necessary with staff turnover and aging infrastructure.

Breakout Session - Presenter Information

This session will promote awareness and foster discussion among transportation professionals. Through a round-table interaction, innovations and efficiencies will be generated that can improve UDOT operations and protect water quality. The round-table format allows a diverse group of transportation professionals to collaborate and learn from one another. The best solutions are often discovered when a variety of perspectives are brought together and shared in a non-confrontational setting. A smaller group is less likely to be intimidating and will promote quality sharing and group discussion.

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	200D

Title: Thermal Evaporators at UDOT Maintenance Stations

Learning Objective(s):

- Demonstrate knowledge of the history and status of existing and future evaporators at UDOT maintenance stations.
- Exhibit an understanding of the implications and benefits of utilizing thermal evaporators at UDOT maintenance sheds.

Presenter(s):

Rhonda Thiele

UDOT Stormwater Program Manager

rhondathiele@utah.gov

Rhonda has worked in the field of stormwater management for over 30 years. She has worked for the Salt Lake County Health Department in the areas of pollution prevention and illicit discharge detection and elimination (IDDE) and then became the MS4 program coordinator for the Department of Environmental Quality. She has served as UDOT’s stormwater program manager for the last five and a half years, which provides a unique perspective after serving as UDOT’s MS4 permit writer for nearly 10 years.

Stephanie McGinnis

Region 2 Stormwater Program Coordinator

samcginnis@utah.gov

Stephanie McGinnis joined UDOT as the stormwater coordinator for Region Two in March of 2022. In her role, she helps to ensure compliance with UDOT’s Utah Pollutant Discharge Elimination System (UPDES) Municipal Separate Storm Sewer System (MS4) permit. She holds a M.S. in Biological Sciences from Montana State University.

Bren Edwards

Region 1 Stormwater Program Coordinator

brenedwards@utah.gov

Bren Edwards joined the UDOT stormwater team in May of 2018. He is the Region Stormwater Program Coordinator for Region 1 where his primary goal is permit compliance throughout the region’s maintenance and construction operations. Bren and his wife have two children and they love spending their time rodeoing with their kids.

Lenora Sullivan
Region 3 Stormwater Program Coordinator
lsullivan@utah.gov

Lenora has 25 years of experience working as an environmental scientist including hazardous waste, wildlife, wetlands, weed control and water quality. She holds a B.S. in Environmental Science from the University of Utah and loves skiing, jogging and traveling.

Abstract:

The Utah Department of Transportation (UDOT) is challenged with how to best manage the salty water produced from washing their snow removal equipment. Currently, the Department has retention ponds at many of their maintenance stations where this water is stored until it can be used for making brine, evaporated, or pumped and hauled to a disposal site. The issue facing UDOT is that ponds may be unable to handle the amount of salty water that is produced and the water doesn't naturally evaporate quickly enough. This means that the pond water has the potential to run off of the site. Any wash water that overtops the pond and flows off site is known as an illicit discharge and is a violation of UDOT's Utah Pollutant Discharge Elimination System (UPDES) Municipal Separate Storm Sewer System (MS4) permit. Water in the retention ponds have contaminants from washing vehicles and equipment that can be harmful to water quality, vegetation, and local habitats.

Because hauling water to an approved disposal site is extremely costly, UDOT has recently started to employ the use of thermal evaporators to reduce water levels in ponds at risk of exceeding capacity. Thermal evaporators use natural gas to heat up and, as their title implies, evaporate water. UDOT has identified central locations within UDOT regions to house thermal evaporators so that neighboring maintenance stations can utilize them as well. Evaporators are located at the Hot Springs Maintenance Station in Region One and the West Jordan Maintenance Station in Region Two. One is planned to be constructed at the Vernal Maintenance Station in the near future as well.

Join us to learn about the long-term cost savings, process efficiencies, and regulatory compliance benefits of thermal evaporators.

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	300A-B

Title: UDOT ROW Digital Delivery and Asset Inventory

Learning Objective(s):

Attendees will be able to navigate UDOT's new Right-of-Way Design Asset Inventory in order to track the Right-of-Way Design processes to aid in identifying existing Right-of-Way data and properties that may be identified as excess to the Department. The session will educate the audience on new Right-of-Way Design processes for asset inventory that is required on all projects that require the purchase of additional real property, regardless of the Digital Delivery project, and introduce a similar process for the Excess/Surplus Process. The new processes will have an impact on the cost and schedule of a project in keeping with the Right-of-Way Design Process which includes preparing excess/surplus packages during the project life cycle. With this session, the audience will be able to develop a fee and schedule more accurately during proposal and scoping phases of the project.

Attendees that are involved in the Right-of-Way Design will also receive a refresher on the GIS Conversion process which is required for all projects and learn of the beta conversion tool and process that will be utilized for identifying and tracking of excess/surplus properties.

Presenter(s):

James A. Olschewski
Right-of-Way Program Manager
UDOT
jolschewski@utah.gov

James A Olschewski, PLS, SR/WA, has spent his 35+ Right of Way year career designing and acquiring ROW for UDOT as a consultant & as an employee. He has degrees in Architecture & Surveying and loves to spend time with his grandchildren.

Riley Lindsay
Statewide Survey Specialist
UDOT
rlindsay@utah.gov

Riley Lindsay has worked as the UDOT Region 4 Survey Manager and the Region Right of Way and Utility Designer for Region 4. His current role with the Department is as the Statewide Surveyor. He is a licensed surveyor, and currently leads the development of innovative processes related to drone aerial imagery and data collection. He loves to find ways to implement technologies such as UAS, LiDAR and GIS to make people's jobs easier and more efficient.

Ben Teran
GIS Administrator for Right-of-Way Division
UDOT
bteran@utah.gov

Ben has worked for UDOT for the past year and a half supporting Property Management & the Acquisition teams. Ben has 20 years of GIS experience working for both local government and the private sector. In his free time Ben loves to travel, hike, camp, and fish with his family.

Derrick Sharp
GIS Manager
Horrocks
derricks@horrocks.com

Derrick is an experienced GIS Programmer, Manager, and Senior Analyst with 16 years of experience. Derrick specializes in server-side GIS and workflow automation. Derrick has used his experience to develop tools to aid in the DD process for private companies, municipalities, and public agencies.

Alexis Walters
Transportation Engineer
Kimley-Horn
allie.walters@kimley-horn.com

Alexis is a professional engineer focused on roadway engineering and DD design and implementation. She has developed standards and training material for DD processes in conj

Abstract:

UDOT Central ROW has developed an asset management tool for current and future projects to track properties acquired during the Right-of-Way Design and Acquisition process in conjunction with Digital Delivery requirements. The Right-of-Way tool captures data in a CADD environment and processes this data, along with information from the Right-of-Way Module in ePM, into a GIS database for use in UPLAN and/or other GIS tools.

This demonstration will provide an overview of the new processes, training material, and Department standards for staff and consultants to use during the Right-of-Way Design and excess/surplus process that flows into the asset inventory for the Department. The presenters will demonstrate how to use the Right-of-Way Map on UDOT's UPLAN portal for project teams to better utilize the existing ownership and property data. A demonstration of the resources for the Right-of-Way Conversion tool will be provided in conjunction with an overview of the beta conversion tool and process for tracking excess/surplus properties.

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	300C-D

Title: Specifications 101

Learning Objective(s):

- 1) Learn how the specifications are used together with plans and pay items
- 2) Learn how an individual spec should be written and why

Presenter(s):

James Corney has been part of the Structures Division for the last 7 years with a major focus on Structures Standards and manuals. Before moving to Utah with his wife and two boys James worked as a lead designer designing bridges and buildings in Las Vegas Nevada for 10 years.

Abstract:

Specifications are like engineers. In general engineers are not flashy, or attention grabbing. They chose a highly specialized, intellectual career path with little expectation to be the center of attention or, honestly, even all that recognized for the hard work they do. Yet the work they do is extremely important and provides all of the behind the scenes "stuff" that actually makes a project run successfully. And when the other stuff hits the fan it's the engineer who is called forward to testify and stand in the legal gap to determine what is right and what is wrong. That's what specifications are.

While the plans are artistic and show a completed vision, the specifications do the work. They provide the requirements the Department thinks are necessary for the work to be completed successfully and with pay. Doing the work and getting paid for it is what the specifications are all about. The plans and specifications must work together for a successful project to meet expectations.

This presentation will provide context for specifications and their connection to other contract documents like plans, the M&P, and MS&TR. It will also discuss UDOT specification format and proper specification writing to provide a correct, legal and enforceable specification.

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	400

Title: Advancing Transportation Equity One Step at a Time

Learning Objective(s):

- 1- Define what transportation equity means for UDOT and its partners.
- 2- Share information about ongoing transportation equity-related work.
- 3- Act on shared transportation-equity priorities.

Presenter(s):

Eileen Barron

Strategic Communications Manager, UDOT
ebarron@utah.gov

Eileen Barron is Communications Manager for Planning and Investment at the Utah Department of Transportation. She supports statewide initiatives for Program Development, Technology and Innovation, and Employee Learning and Development. Eileen has more than 20 years experience leading communications and public involvement for transportation plans and projects. More recently, Eileen has applied her public engagement skills to internal employee outreach to lead intentional culture formation within UDOT. She is project manager for the department's focus on being a strengths-based organization and leads the department's strategy for Equity, Diversity, Inclusion and Access (EDIA).

Muriel Xochimitl

President, X-Factor Strategic Communications
muriel@xfactorutah.com

Muriel Xochimitl is the president of X-Factor Strategic Communications. She has served as the WFRC communications and government affairs director, UDOT communications manager, project manager for The Langdon Group, and Congressional staffer. She has a B.A. in Political Science from BYU, an M.A. in International Development from Johns Hopkins University.

Mitzi Miranda

Communications Coordinator, X-Factor Strategic Communications
mitzi@xfactorutah.com

Mitzi Miranda is an X-Factor communications coordinator. She specializes in community outreach to diverse and underserved communities. Mitzi is a first-generation Mexican American who speaks fluent Spanish. Mitzi has worked as a digital marketing manager for ClearLink. Mitzi holds a B.A. in strategic communications from the University of Utah.

Kaylee Hansen

Communications Manager, X-Factor Strategic Communications

kaylee@xfactorutah.com

Kaylee Hansen is an X-Factor communications manager. She develops communications and marketing campaigns for a wide variety of clients, drafts content, and designs graphics for digital and print channels, tracks and reports web, social and email analytics, and executes day-to-day tasks. Kaylee holds a B.A. in Marketing at UVU.

Lizeth Zacarias

Communications Coordinator, X-Factor Strategic Communications

liz@xfactorutah.com

Liz is an X-Factor communications coordinator. She brings a wealth of experience helping clients achieve their goals through strategic communications and or

Abstract:

Never has there been a better time than the present to engage in open and honest conversations about transportation equity in Utah. There is a growing, broad-based recognition that Utah's transportation system has historically negatively impacted underrepresented communities disproportionately.

Our session will be collaborative and interactive. We will first undergo a root cause analysis (RCA) with attendees by dividing the room into groups. After a report from each table, the lead facilitator manages a large group discussion about the findings from each of the tables.

The second interactive exercise will build on the RCA. The exercise is intended to make the connection that everyone in the room has privilege.

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	E1

Title: Little Cottonwood EIS - Public Information for Controversial Projects

Learning Objective(s):

Attendees will learn about how the Little Cottonwood EIS project has utilized the NEPA process

Presenter(s):

Josh Van Jura

Utah Dept of Transportation - Little Cottonwood Canyon EIS Project Director

jvanjura@utah.gov

Josh graduated from Penn State University in 2001 and after numerous ski trips to Utah decided that's where he ultimately wanted to live. He started with the Utah Department of Transportation directly out of university and spent the first part of his career in UDOT's Construction Division as Resident Engineer and then the State Construction Engineer. He is currently the Project Director for the Little Cottonwood Canyon EIS project.

Brianna Binnebose

Penna Powers - Public Information Specialist

bbinnebose@pennapowers.com

After a spring break ski trip from Wisconsin to Little Cottonwood Canyon in 2005, the powder convinced Brianna Binnebose to give Utah a try. She is a communications consultant with Penna Powers and the Public Involvement Lead for the Little Cottonwood Canyon EIS. Brianna earned a Master's Degree in Public Policy from the University of Utah and has been involved in public involvement and planning for nearly a decade. She has previously worked for the Utah Division of Forestry, Fire and State Lands as the Wasatch Front Wildland Urban Interface Coordinator, where she received national recognition for her work in wildfire prevention and preparedness. When not strategizing on all things communication, Brianna can be found motorcycling, roaming mountains near and far, and watching cooking shows on Netflix.

Lance Kovel, P.E.

Special Projects Coordinator

USDA Forest Service, Uinta-Wasatch-Cache National Forest

lance.kovel@usda.gov

BSc Civil Engineering, Colorado School of Mines; MSc Arctic Engineering, University of Alaska.

Licensed Professional Engineer, Civil/ Environmental; Alaska, Colorado, and Utah. Presently over 6-years with the USDA Forest Service managing transportation, electric transmission line, NEPA, and other special projects across multiple National Forests in Utah. Forest Service UDOT Liaison.

Carissa Watanabe

Title: Environmental Program Manager

Organization: UDOT

Email: cwatanabe@utah.gov

Bio: Carissa has been with the Utah Department of Transportation since 2016 and is currently an Environmental Program Manager overseeing the preparation of environmental impact statements, environmental assessments and larger state environmental studies.

Abstract:

The Utah Department of Transportation (UDOT) has identified Gondola B as the single preferred alternative developed as part of the Little Cottonwood Canyon Final Environmental Impact Statement (EIS) to improve transportation in the canyon. Gondola B, with phased implementation, best meets the project purpose and need and provides the highest travel reliability for the public. The Final EIS, available for review on the project website, is the next phase in the EIS process, which includes a 45-day public review and comment period through October 17.

Recognizing that safety, mobility and reliability are issues on S.R. 210 today, and that it may take years to secure federal, state and/or private funding for full implementation of the Gondola B Alternative, UDOT is proposing a phased implementation plan starting with components of the Enhanced Bus Service. The proposed phasing would include increased and improved bus service as described in the Enhanced Bus Service Alternative (with no canyon roadway widening), tolling or restrictions on single occupancy vehicles, and the construction of mobility hubs. UDOT would also proceed with widening and other improvements to Wasatch Boulevard, constructing snow sheds, and implementing trailhead and roadside parking improvements, as funding allows. These improvements will improve air quality, protect the watershed, and increase the quality of life for residents and canyon users by reducing traffic congestion as private vehicles shift to transit.

We will discuss how the project has gotten to the release of the FEIS, the large amount of public comments and where we are going from here.

Breakout Session - Presenter Information

Session Day and Time

Tuesday
October 25
2:45 - 3:45 PM

Assigned Room

Draped Hallway

Title: Stop the Bleed Training**Learning Objective(s):****Presenter(s):**

EmmaJayne Daw, RN, CCRN
St. Mark's Hospital

Abstract:

A person can die from a bleeding emergency in as little as three minutes. Do you know what to do in a bleeding emergency? Join us for a full training! NOTE: this session is first come, first serve and capped at 20 participants.

Breakout Session 3 - Tuesday, October 25 | 4:00 - 5:00 PM

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	200A

Title: Survey123 for Stormwater Data Collection**Learning Objective(s):**

- Attendees will be able to understand how the UDOT Stormwater Team utilizes Survey123 to collect and manage data that is crucial to compliance of key components of the UDOT stormwater regulatory permit.
- Attendees will have knowledge of the capabilities of Survey123 and how it can be used for data collection, organization, and visualization.

Presenter(s):

Rhonda Thiele
UDOT Stormwater Program Manager
rhondathiele@utah.gov

Rhonda Thiele has worked in the field of stormwater management for over 30 years. She has worked for the Salt Lake County Health Department in the areas of pollution prevention and illicit discharge detection and elimination (IDDE) and then became the MS4 program coordinator for the Department of Environmental Quality. She has served as UDOT's stormwater program manager for the last five and a half years, which provides a unique perspective after serving as UDOT's MS4 permit writer for nearly 10 years.

Brandon Burrows
Stormwater Program Specialist
bburrows@utah.gov

Brandon is a Stormwater Program Specialist for the UDOT Stormwater Team. His previous roles in stormwater management include assisting the City of St. George stormwater program and managing stormwater operations for a contractor as the Environmental Health and Safety Director. Brandon has received his bachelor's degree in History and MBA both from Southern Utah University.

Sidney Pharr
Stormwater Program Specialist
spharr@utah.gov

Sidney is a recent transplant from Savannah, Georgia, with a B.S. in Environmental Sciences and experience in wastewater treatment. She started as a UDOT Stormwater Program Specialist in September 2022, in which she assists the Stormwater Team in complying with the UPDES MS4 permit.

Abstract:

The Utah Department of Transportation Stormwater Team is required by a stormwater (MS4) permit to perform and document inspections for a variety of stormwater related activities and locations including; construction projects, maintenance stations, ports of entry, rest areas, illicit discharge investigations, dry weather screening, long-term stormwater feature inspections, and many others. Additionally, maintenance station staff, ports of entry staff, construction crews, and consultants are all required to perform inspections that must be documented and stored so that they can be reviewed at any time. The requirements of the UDOT MS4 permit create the need for hundreds of inspections each month which makes it clear why paper inspections are inefficient for our needs and why digital inspection capabilities are essential to the success of the UDOT Stormwater Program.

Rather than using paper copies, the stormwater team has turned towards the online survey application Survey123 to help track and assist field inspections. The use of Survey123 has been crucial to aid with inspections, data visualization, and documentation efforts for UDOT's stormwater program. We receive real-time data that helps us better respond to events such as spills and overflowing ponds. Survey123 also safely stores and manages our data so it's easier to understand and compile into annual reports, presentations, and to review at any time. One of its most valuable features is that it is intuitive and easy to use from any mobile smart device. Survey123's offline features also allow our staff in rural areas of the state or construction projects taking place in remote areas to document activities.

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	200A

Title: Good Data = Good Decisions

Learning Objective(s):

- Attendees will understand the importance of quality data in setting performance measures and targets that lead to data-informed decisions as well as the progress being made to better manage asset data.
- Attendees will be able to identify sources of data for asset management and decision making, including digital delivery (design/construction), maintenance, and permits. As well as how they contribute to those sources and improve data integrity.

Presenter(s):

Chris Whipple
Asset Management, Program Manager
UDOT

Abstract:

Having standardized data is key to analysis and decision-making. The Transportation Performance Management group has been asked to provide resources to Executive Leadership to make data-informed decisions about funding and resource allocations.

In order to provide that information, we need quality data that is managed at an appropriate level. That data is then connected to performance measures that allow prioritization and analysis to make data-informed decisions.

With the help and patience of all Tier 1 and 2 asset groups, a baseline of data management practices was established using consistent data assessments. The assessments also established a desired level of data management to improve data collection, integration, analysis, and decision-making. Gaps between the current and desired levels of data management as well as improvements have been identified and prioritized for each asset group.

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	200B

Title: Central Construction Updates

Learning Objective(s):

Updates regarding contract management and business system updates and new modules, along with upcoming changes to certain programs

Presenter(s):

Deni Archuletta
Sr. Business Analyst
UDOT Central Construction
darchuletta@utah.gov

Deni Archuletta has worked with UDOT for just over 10 years, all with Central Construction. She started out as the Administrative Assistant and is currently a Sr. Business Analyst. She primarily supports the Masterworks Construction module, running and creating reports. Prior to UDOT she worked in Call Center Management for 16 + years. She managed projects from 6 to over 400 employees. This included: managing finances; ensuring Key Service Agreement metrics were tracked, reported on, and met; Interviewing and Hiring employees; Employee development; and Client Relations. She has been married for 30 years to her best friend. They have a son and a daughter, horses, dogs, and muscle cars. They like to camp, boat, compete in horse shows, go to the dunes, go on trail rides and go to car shows.

Rodney Ruby
Deputy Construction Engineer
UDOT Central Construction
rjruby@utah.gov

Rodney obtained his Civil Engineering Degree from University of Utah in 2008 and has been with UDOT for 15+ years. His first 13 years were on a Region 2 construction crew, first as an intern then Field Engineer, then 11 years as a Resident Engineer. The last 2.5 years has been in Central Construction as the Deputy Construction Engineer.

Stacy Frandsen
UDOT Central Construction
Contracts, Compliance & Certification Manager
sfrandsen@utah.gov

Stacy has served UDOT for 27 years. As the Contracts, Compliance & Certification Manager, Stacy is responsible for overseeing federal and state compliance and processes in relation to UDOT Federal &

Breakout Session - Presenter Information

State Heavy Highway and Subrecipient Contracts, Utility Pay Requests, Partial and Final Contractor Payments, Monitoring Contractor & Subcontractor Performance, Heavy Highway Project Advertising, Heavy Highway Project Closeout and UDOT Contractor Prequalification processes.

Cory Bekkemellom
UDOT Central Construction
Construction Inspection Program Manager
cbekkemellom@utah.gov

Cory spent 27 years in region 2 Construction working his way up from a seasonal to a Level IV. Notable projects he was involved with are: 12300 S. Design-Build, 11400 Design-Build, SR-92 Design-Build, Silvercreek canyon (twice), the first two phases of Mountain View Corridor, and I15; SB 2100 S to 12300 South Design-Build. His last two years have been in Central Construction as the Construction Inspection Program Manager.

Jace Mecham
UDOT Central Construction
State Construction Engineer
jmecham@utah.gov

Jace has been with the Department for 23 years, is the chair of the WASHTO subcommittee on partnering. He graduated from Utah State and enjoys playing VR and collecting a

Abstract:

Come learn about Updates regarding contract management and business system updates and new modules, along with upcoming changes to certain programs. Topics may include: Construction Zone website, Instruction to Contractor Manuals, Utility agreements in advertising, M&P Update, BA, the direction of central construction, a demo of upcoming Masterwork changes, CITP, the new Partnering Program, and Contractor of the Year information.

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	200C

Title: 200 South Transit Corridor Plan - Doubling Down on Bus Transit in SLC

Learning Objective(s):

Attendees will learn how to use a variety of engagement tools. Attendees will learn what features could be incorporated on a multimodal corridor in an urban setting.

Presenter(s):

Kyle Cook, PE
Transportation Engineer
Salt Lake City Transportation Division
kyle.cook@slcgov.com

At SLC Transportation I bring ideas to reality by retrofitting the public right of way to make people safer and more comfortable as they move through our City. Things like transit stops, crosswalks, bike lanes, and complete streets. My projects coordinate across many disciplines, so I'm ever-grateful for the opportunity to learn and collaborate with others working to make positive changes.

Kordel Braley, PE, PTOE
Senior Traffic Engineer
AECOM
kordel.braley@aecom.com

Kordel has 16 years' experience specializing in traffic operations analysis, planning, and safety across all modes of transportation. Kordel enjoys supporting the design process to achieve broadly acceptable and sustainable transportation solutions for unique transportation challenges. Kordel led the traffic analysis during the planning phase of the 200 South project.

Megan Yuill, AICP
Senior Transportation Planner
AECOM
Megan.Yuill@aecom.com

Megan is a Senior Transportation Planner with AECOM, where she has been leading planning efforts on a variety of multimodal projects across the country. She is a strong advocate for transit and multimodal solutions, and was selected to participate in the American Public Transportation Association's Emerging Leaders Program this year.

Scott, Shea, PE
Senior Transportation Engineer
AECOM
scott.shea@aecom.com

Scott loves bicycles! He was so excited for this project, as he commuted on 200 South using the bike lanes and the UTA #2 bus line while earning his PhD at the UofU. Scott led the signing and striping design, including the intricate interactions between the bikes, buses, and pedestrians.

Brandon Kidd, PE
Senior Transit Project Manager
AECOM
Brandon.Kidd@aecom.com

Brandon has 21 years of experience in design and project management of transportation projects in Utah and the western United States. His expertise includes innovative design

G.J. LaBonty
Manager – Customer Experience
Utah Transit Authority
glabonty@rideuta.com

LaBonty has 18 years of experience with the transit agency and worked as a Long Range and Strategic Planner before taking over the Customer Experience team. His pri

Abstract:

Located in the heart of downtown Salt Lake City, 200 South is more than just a street. It connects to Utah's largest job and local business centers, signature retail and cultural destinations, the intermodal hub, and the University of Utah. As part of the Funding our Future Bond, Salt Lake City has started reconstructing 200 South from 400 West to 900 East with aspirations to create an iconic corridor where businesses thrive, residents feel comfortable and safe walking, transit users navigate easily, and visitors build lasting memories. Better transit service and improved street conditions were identified as two of the City's four critical needs through the Funding our Future bond and because the pavement on 200 South had reached the end of its useful life, it was put on the list for reconstruction.

The 200 South Corridor Plan was launched to evaluate transit and mobility improvements and a transit hub to better serve all modes – walking, biking, transit, vehicular, and shared mobility. The study was led by the City in partnership with Salt Lake County and UTA.

As the plan kicked off in March 2020, there was no “play book” for how to engage stakeholders and the public and gain the consensus necessary to move from planning to implementation all in a virtual world.

This presentation will share successful strategies for how our team quickly adapted to a new way of doing business in a virtual world to engage the public and gain consensus. We will also share some of the strategies and considerations our team used to identify right-sized transit and multimodal improvements and how we incorporated community feedback along with technical expertise to identify the preferred alternative for a corridor entering an era where the future of transit was changing and

Breakout Session - Presenter Information

uncertain. As the project is now under construction, the presentation will also cover lessons learned during the design and construction of this unique multi-modal project.

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	200C

Title: Bringing Private Solutions to Public Projects

Learning Objective(s):

Attendees are able to share an innovative funding mechanism option with their teams or clients based on the success and lessons learned from the Powers & I-25 Interchange Project in Colorado Springs, CO.

Presenter(s):

Pat Stein, PE
Mountain West Regional Director, FHU
Patrick.stein@fhueng.com

Pat has 17 years of experience in transportation, including teaching baby boomers how to use the SumProduct command in Excel. As Mountain West Regional Director, Pat’s focus is on successfully delivering our most complex projects. In his free time, he enjoys golfing and skiing slower than his kids.

Alivia Plankis, PE
Mountain West Structures Group Lead, FHU
Alivia.plankis@fhueng.com

Alivia is FHU’s Mountain West Structures group lead, with 10 years of structural design experience on transportation projects across the region. As a younger leader in the industry, she brings innovative skills like “sharing her screen” and remembering to unmute. In her free time, she enjoys rock climbing and camping.

Abstract:

Powers Boulevard acts as the eastern beltway around the City of Colorado Springs. Although much of the corridor has been constructed, the northern connection to I-25 is a missing link to the beltway from the north. The culmination of residential growth on the north side of the City, combined with major attractions including the Air Force Academy and Bass Pro Shops drove an accelerated need for a project that was first identified in the 1990s. This important missing link to I-25 at the north end of Powers Boulevard would improve safety, reduce travel time and drive economic vitality for the City. However, it needed a funding solution that went above available State and City dollars.

Copper Ridge Metropolitan District approached the City with a partnership strategy that included building a funding mechanism for the interchange using an Urban Renewal Authority (URA). By taking advantage of the current tax base in the area, Copper Ridge was incentivized to broaden the tax base through development, while also creating a fund for the interchange. This partnership led to \$50M of funding dedicated to the construction of a new interchange connecting State Highway 21 and Interstate

Breakout Session - Presenter Information

25. Building on that momentum, the project team was able to secure the remaining construction dollars through smaller grants and supplemental funds from the Colorado Department of Transportation (CDOT). CDOT leveraged a Water Quality Grant Fund which allowed over \$10M to be contributed to the project through a separate construction contract, thus closing the funding gap.

By accelerating the project funding through the URA, the new interchange started construction in 2018, cutting years off the predicted construction date. This ability to hit preferred timing of market conditions not only saved construction dollars simply due to continual inflation, but also by allowing the project to finish construction just prior to severe material cost spikes. Without this project acceleration, CDOT would not only be missing a key link in their network but would also be further short financially and less likely to close the increasing funding gap.

Utilizing two different funding mechanisms with two different contractors within the same project limits required thoughtful coordination and partnership with numerous stakeholders. As the lead designer of this complex interchange, FHU will present the project history, hurdles and successes that took a project with no funding to a fully directional interchange that is now operational in Colorado Springs. The innovative funding mechanism and unique partnership between a trusted developer and multiple public stakeholders serves as an example of how consultants, developers, and public clients can leverage creative approaches to deliver impactful infrastructure solutions for the public.

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	200D

Title: I-15 Grapevine Pass Rock Cuts

Learning Objective(s):

Recognize the importance of accurate site characterization and construction monitoring for rock cuts.

Presenter(s):

Ari Menitove
UDOT

Abstract:

This is the story of how errors in geologic characterization and lack of communication during construction resulted in stability issues within a rock cut along I-15 at Grapevine Pass (Washington County). Ultimately, the cut was redesigned and reconstructed at significant expense to the Department. This presentation describes what went wrong and the lessons learned from a geological/geotechnical perspective.

Session Day and Time	Assigned Room
Tuesday Oct 25 2:45 - 3:45	200D

Title: Bridge Over Troubled Mine (AKA Blast at Bonanza)

Learning Objective(s):

This will be a case history of a decision process related to a difficult situation with the conditions and interested 3rd parties.

Presenter(s):

Jon Bischoff

Geotechnical Design Engineer

BS and MS Degrees at Utah State University

1984-1994 - Consulting Geotechnical Engineer with projects in the states of Utah, Idaho, Arizona, Oregon, Washington, California, and Minnesota.

1994-Present - Geotechnical Design/Oversight Engineer on large and small projects involving bridges, embankments, landslides and other geohazards.

Member of 4 TRB committees (not all at once) and panel member on 8 NCHRP studies, including chairman of 3.

Abstract:

A gilsonite mine at Bonanza crosses under SR-45. The mine left a soil bridge under our road to support the road. Over the years the soil bridge started collapsing and closed the road. The decision to mitigate the situation went several rounds that ended up in a bridge over the mine, with the mine covering some, but not all of the cost.

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	300A-B

Title: The Safety Costs of Design Decisions**Learning Objective(s):**

Quantifying safety in the engineering decision process, including:

- Design exceptions
- Alternative selection
- Asset value
- Transportation planning, etc.

Presenter(s):

Jeff Lewis - Central Traffic & Safety

Jeff has worked in the Transportation Engineering industry for over 16 years, including 10 years at the Utah Department of Transportation (UDOT) working in Region 2 in Roadway Design, Traffic & Safety, and Permits. Jeff now works as the Safety Programs Engineer with UDOT Central Traffic & Safety.

Ivana Vladislavljovic - Central Traffic & Safety

Dallas Wall - Wall Consulting Group

Abstract:

The Code of Ethics from the National Society of Professional Engineers makes the following statement in their code of ethics (<https://www.nspe.org/resources/ethics/code-ethics>):

“ . . . services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare.”

Data driven decision procedures assume a sound understanding of the benefits and costs associated with the decision making process. Many engineers lack the tools to determine how their decisions impact the safety of roadway users. This workshop introduces concepts of quantifying safety to engineers and planners in an attempt to help make better decisions. This workshop's activities include the following:

1. Identify common misconceptions of engineers when it comes to roadway safety
2. Explain why predictive modeling is necessary to quantifying safety
3. Compare the safety impacts of alternatives
4. Help Engineers feel confident in explaining their decisions

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	300 C-D

Title: Environmental Updates

Learning Objective(s):

Attendees will learn about recent changes in the environmental section, and updates on regulations

Presenter(s):

Presenter: Brandon Weston

Title: Environmental Services Director

Organization: UDOT

Email: brandonweston@utah.gov

Bio: Brandon has been at UDOT for nearly 20 years and has been UDOT's director of environmental for 10. Prior to coming to central environmental he served numerous roles in Region 2 and 3.

Presenter: Naomi Kisen

Title: Environmental Program Manager

Organization: UDOT

Email: nkisen@utah.gov

Bio: Naomi has been an Environmental Program Manager with UDOT for almost eight years. She takes her NEPA responsibilities with a few environmental resources on the side, including air quality, and is a self-proclaimed policy nerd.

Presenter: Matt Howard

Title: Natural Resource Manager

Organization: UDOT

Email: matrhoward@utah.gov

Bio: Matt Howard is the Natural Resources Manager for UDOT who works to avoid and minimize impacts

to wildlife due to new and existing transportation projects. He has worked as a biologist for 16 years, 5 of which have been with UDOT.

Presenter: Rod Hess

Title: Senior Landscape Architect

Organization: UDOT

Email: rhess@utah.gov

Bio: Rod Hess is the UDOT Senior Landscape Architect whose duties include oversight of UDOT projects

Breakout Session - Presenter Information

regarding aquatic resources permitting; final stabilization measures; landscape architecture, and highway aesthetics.

Presenter: Liz Robinson

Title: Cultural Resources Program Manager

Organization: UDOT

Email: lizrobinson@utah.gov

Bio: Liz is the Cultural Resources Program Manager and oversees UDOT's regional archaeologists and architectural historian. She has worked to

Abstract:

Attendees will learn about recent changes in the environmental section, and updates on regulations. Topics may include:

- What EAs/EISs are ongoing
- Upcoming Projects
- Challenges
- IJJA
- NEPA Phase 2

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	400

Title: From Change Management to Change Leadership

Learning Objective(s):

- (1) Participants will be able to identify and lead discussions on all five steps in the ADKAR Change Management model
- (2) Participants will be able to use the ADKAR Change Management model to lead a current or future change that they are involved in.

Presenter(s):

Bryce Lancaster
Training Manager, Utah Department of Transportation
Blancaster@utah.gov

Bryce Lancaster is an ADKAR-Certified Change Manager through Prosci, who is one of the global leaders in change management solutions. Bryce has extensive experience leading large scale changes in organizations from beginning to end, and has prepared a curriculum for leaders who want to take an active role in their organization's change management efforts.

Abstract:

"I don't like change" is a very common thing to hear in the workplace. Unfortunately for those who feel that way, things in the transportation industry change all the time. Many think of organizational changes as huge, challenging concepts that come from higher-up. But every individual in an organization has the ability to manage, lead, and facilitate change by placing their changes within a framework. The Prosci ADKAR Change Management model is that framework. The ADKAR Change Management model provides leaders and influential individuals within an organization a researched, data-driven approach to effectively managing changes both large and small. Participants in this workshop will learn the five tenets of ADKAR Change Management, and walk away with a practical application of the model using present situations they face in the workplace today.

Session Day and Time	Assigned Room
Tuesday Oct 25 4:00 - 5:00	E1

Title: Staying on Track During Construction

Learning Objective(s):

Attendees will learn best practices working for with UPRR and other during construction

Presenter(s):

Travis Bailey (RailPros)

Lance Kippen (RailPros)

Garret Jenson

Abstract:

Travis Bailey (RailPros) will lead the panel discussion focused on railroad construction processes and coordination. Panelists will be from RailPros, who represents Union Pacific Railroad on projects in Utah; UDOT; and Granite to get perspectives from the major parties involved in construction. Many construction delays can be tied back to not understanding or following the railroad process. The panel will address frequently asked questions as well as questions from the audience. The purpose of this session is to head off the questions and mistakes that happen regularly to better educate the engineering and contractor communities on how to work with the railroad to avoid these delays on future projects. The variety in the panel will allow participants to hear the perspective of their peers for better application. Lance Kippen (RailPros) was formerly with Union Pacific and is currently the public projects engineering consultant (PP-EC) for Union Pacific Railroad in Utah. Lance will share the railroad perspective including guidance from the new Union Pacific Public Projects Manual. Garret Jenson has been working with the Union Pacific and other railroads for several years and has helped UDOT successfully construct several projects with Union Pacific Railroad. Garret will share UDOT's perspective and lessons learned. Pat Kalisz works for Granite Construction. Granite has demonstrated an excellent understanding of railroad processes and has built multiple projects involving Union Pacific. Pat will share best practices that can lead to successful completion of construction projects with Union Pacific Railroad.

Breakout Session - Presenter Information

Session Day and Time

Tuesday
October 25
4:00 - 5:00 PM

Assigned Room

Draped Hallway

Title: Stop the Bleed Training**Learning Objective(s):****Presenter(s):**

EmmaJayne Daw, RN, CCRN
St. Mark's Hospital

Abstract:

A person can die from a bleeding emergency in as little as three minutes. Do you know what to do in a bleeding emergency? Join us for a full training! NOTE: this session is first come, first serve and capped at 20 participants.

Breakout Session 4 Wednesday, October 26 | 8:15 - 9:15 AM

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	200A

Title: Engaging with Diverse and Multicultural Audiences

Learning Objective(s):

Incorporate best practices for diverse and inclusive public outreach, including the use of demographic information to understand audiences reached and measure success.
 Understand the importance of engaging community partners early to avoid hurdles in contracting and for continued engagement throughout the process.

Presenter(s):

Megan Waters

Community Engagement Director – Utah Transit Authority

Megan Waters is the Community Engagement Director at the Utah Transit Authority, guiding engagement efforts, partnership building, and community connections. Megan’s background is in public health - she’s excited about applying a public health and health equity lens to community engagement and transportation.

Claire Woodman

Senior Project Manager – Horrocks Engineers

Claire is a senior project manager and planner who is skilled in multimodal corridor studies, regional planning efforts, environmental analyses, and small area plans with high levels of stakeholder participation and public involvement. Claire is committed to advancing strategies for equitable outreach through all aspects of project development.

Katie Williams

Public Involvement Specialist

Katie is a Public Involvement Specialist with an expertise in engaging with a broad spectrum of stakeholders. She works to establish and maintain relationships with local government entities, businesses, residents, businesses and agencies. She is experienced in overseeing and organizing effective outreach campaigns using a variety of tools and tactics to obtain meaningful public feedback from a variety of audiences.

Abstract:

The South Valley Transit study was completed in 2022 and evaluated options for providing high- quality transit service from Provo to Santaquin. The study brought together the Cities of Provo, Springville, Mapleton, Spanish Fork, Salem, Payson, and Santaquin, in collaboration with the Mountainland Association of Governments (MAG), Utah Department of Transportation (UDOT), and Utah Transit Authority (UTA).

Breakout Session - Presenter Information

A robust public engagement program was utilized for the public and stakeholders to provide input and coordination throughout the study. This included ongoing opportunities for education and input and three public outreach periods to solicit targeted feedback at key milestones.

During the first public outreach period, focused on the study Purpose and Need, demographic information was collected to gauge a baseline of who was participating in the study process and if they represented the ridership of UTA and South Utah County. Once the Purpose and Need comment period was completed, we noticed significant disparities in the demographic data.

The initial respondents represented a homogenous demographic of affluent white males, rather than the broader demographic profile indicated by census data for the communities we were serving and typical UTA riders.

To target audiences whose feedback we were missing and those who represented transit users in the area, we refocused outreach efforts to address these demographic disparities. The outreach team targeted community events with a multicultural focus and adapted materials to be accessible to all. As we continued to closely monitor demographic data collected, we saw that community members participating in the study process started to more closely represent users of transit and the demographics of the county.

An effort was undertaken to engage and hire a Community- Based Organization (CBO) partner to compensate for targeted engagement to multicultural audiences in the study area. The outreach team attempted several strategies to navigate through the red tape of contracting and compensating a CBO, but the efforts ultimately fell short. This presentation will share the hurdles in that process and what tactics could be employed moving forward to make partnering with a CBO a success.

Engaging with Diverse and Multicultural Audiences will highlight lessons learned, share best practices, and provide resources for planning and outreach professionals to utilize to ensure an inclusive outreach effort.

Session Day and Time

Assigned Room

Wednesday
Oct 26
8:15 - 9:15

200A

Title: Zero Fatalities Outreach to Hispanics

Learning Objective(s):

Learn about Hispanic fatality statistics and the work we're doing to reach out to this demographic and save lives

Presenter(s):

Martin Herrera

Zero Fatalities Outreach Coordinator, Penna Powers

Martin Herrera is a business owner, entrepreneur and a community outreach professional. He studied at the University of Sonora and University of Arizona and has been involved in Hispanic community activities for more than a decade. He became passionate about traffic safety through a personal experience and spends his time teaching the Hispanic community the importance of safe driving.

Jessica Gonzales, Communications Manager, UDOT

Abstract:

The Hispanic population is one of the fastest growing demographics here in Utah. This presents both new opportunities and challenges when it comes to communicating about safe driving behaviors and traffic safety. Recent data shows that fatalities and accidents affect this group differently across key demographics such as age, gender, and mode. For the past year, the Zero Fatalities team has met with local Hispanic organizations to better understand the data and learn how we can make our outreach more meaningful to save lives. Learn about the current work we've been doing and our future plans to make Zero Fatalities more inclusive to the unique needs of the growing local Hispanic population.

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	200C

Title: ROW: Helping Cities Navigate the UDOT Process

Learning Objective(s):

City staff will learn how to follow the UDOT ROW process and understand what documentation is needed to streamline projects.

UDOT staff will understand the perspective of local governments and improve relationships with them by helping City staff feel more comfortable with UDOT ROW processes.

Presenter(s):

Wendy Hansen

Right-of-Way Acquisition Manager/Broker/Relocation Manager

Horrocks

wendyh@horrocks.com

Horrocks' Wendy Hansen has 25 years of acquisition and relocation experience working with DOTs, local governments, and transit authorities on Utah projects. Specializing in acquisition, relocation, and corridor preservation, she applies her understanding of state and federal acquisition laws to help people relocate, keep projects progressing, and save taxpayer dollars.

Shannon Wixom

Lead Right-of-Way Acquisition & Relocation Agent

Horrocks

shannonw@horrocks.com

Shannon Wixom is a licensed Real Estate Agent and Acquisition/Relocation Agent for Horrocks with eight years of experience acquiring real property under eminent domain and providing relocation services. Her previous experience includes working for UDOT as a Lead Right-of-Way Agent and Weber County Transportation Fund Manager.

Jolene Ottley

Lead Agent/Local Government Program Manager

UDOT

joleneottley@utah.gov

Jolene Ottley has been with UDOT for 15 years. As the UDOT Right-of-Way Lead and Local Government Manager, she provides UDOT oversight and assists local governments on property acquisition and relocations for transportation projects. Jolene served as the IRWA Chapter 38 president from 7/2015 to 6/2016.

Steven Dale
Right-of-Way and Survey Manager
West Valley City
steve.dale@wvc-ut.gov

Steven Dale is a Professional Land Surveyor and has worked with West Valley City for more than 25 years. As the Right-of-Way and Survey Manager, Steve is responsible for leading the City's survey review of new commercial and residential development and acquiring the necessary rights-of-way, properties, and easements for City projects.

Abstract:

We have an opportunity to improve relationships with Cities and local entities to help both sides of the table work better together and promote ROW coordination between agencies. This session will feature a panel of ROW professionals sharing diverse insights. The objective is to understand local government hesitancy when it comes to UDOT ROW coordination and to identify methods for improving that collaboration.

Topic 1: Working with a Local Government Team

When working with a local government team, we need to make sure the local government is aware of the state and federal regulations they are required to follow as well as the structure of the team, UDOT's oversight role, and who has the authority to condemn. Similarly, when UDOT staff understands the needs of the local government it helps eliminate confusion, reduce redundant work, and streamline the ROW process. We will discuss setting up a successful team, with a focus on the perspectives and needs of our local government staff.

Topic 2: Understanding UDOT ROW Policy and Procedures

During this segment the panelists will provide a brief, high-level overview of key UDOT ROW policies and procedures and how they apply to local government agencies. The objective is to review topics that these local government teams may be unfamiliar with and help UDOT staff anticipate points of confusion and opportunities to make the process positive for both parties.

Topic 3: Prioritizing Timing and Schedule

Because timing and schedule are so critical to successful ROW coordination, the panelists will dedicate an entire topic to understanding timing and maintaining schedules for effective design, project management, and acquisition coordination. The panelists will provide specific, actionable recommendations and welcome problems and solutions from attendees.

Topic 4: Lessons Learned

In addition to the foundational topics of creating effective teams, understanding and adhering to state and federal guidelines and policies, and implementing effective project scheduling, the panelists have gathered consistent lessons learned from working with local government agencies and UDOT to create a positive ROW collaboration experience. The final segment of the panel discussion will highlight these findings and encourage staff to identify their own improvements for coordination with local governments.

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	200C

Title: ROW Acquisition 101

Learning Objective(s):

This will provide a high level overview of the right of way acquisition process from the real estate professional's perspective. It is intended to educate project managers and other members of the project team of how and when they should ask for real estate help. It will aid in project/ROW coordination efforts, which will hopefully increase project efficiencies.

Presenter(s):

Charles A. Stormont is a professional problem-solver who draws upon his experience in a variety of fields to serve the State of Utah and his community. He has extensive real estate experience, and is an experienced civil litigation and trial lawyer who currently serves as the Utah Department of Transportation's Director of Right of Way and Property Management, where he oversees myriad complex real estate functions. Prior to joining UDOT in 2018, Charles acted as litigation counsel in a variety of roles, having successfully tried cases in the eminent domain, accounting malpractice, debt collection, patent, securities fraud, driver license revocation, and employment fields. He has worked on multi-billion dollar mergers before federal agencies and a variety of antitrust and intellectual property litigation matters. Charles is active in his community, having been a nominee for statewide public office, and has dedicated considerable time and energy to pro bono and access to justice issues in many roles. For example, Charles has successfully organized pro bono programs in the debt collection, landlord-tenant, bankruptcy, and asylum fields, leading him to receive several awards for his service to others. Charles has been happily married for more than 17 years, and has two amazing kids.

Abstract:

Recent challenges with project delivery have started to arise due to the number of relatively new project managers that do not have significant right of way experience. We have made this presentation in the past, which resulted in considerable efficiencies and improved working relationships by helping different members of the UDOT team learn how the right of way group works, and how we can more effectively work together to deliver projects. It also facilitates productive dialogue, and aids the right of way team by building relationships with those who rely on our services. By getting together to share information and ideas, we hope to break down silos of information that often creep into our work. This, in turn, will increase effective communication across the Department to ensure we continue to Keep Utah Moving efficiently.

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	300A-B

Title: Travel Models: Taking them to the finish line

Learning Objective(s):

Attendees will be exposed to the process and data needed to update the travel models. Attendees will understand the importance of close coordination and frequent communications in complex projects.

Presenter(s):

Natalia Brown
 Travel Demand Model Program Manager
 Utah Department of Transportation
 nataliabrown@utah.gov

Natalia Brown is the Travel Demand Model Program Manager at UDOT and has worked in the development and/or application of travel models in Utah for many years. She, along with partner agencies, is guiding the requirements and design of the new 2023 Household Travel Survey.

Craig Gresham

Senior Associate
 Fehr & Peers
 c.gresham@fehrandpeers.com

Craig Gresham is a senior transportation engineer with twenty-five years of experience in travel demand model development, traffic forecasting, and GIS. He moved from North Carolina to Utah last summer and enjoys exploring all the hiking, ski resorts, and national parks around the area.

Abstract:

For the past year, agencies across the state have spent significant resources updating six travel demand models encompassing all the communities in Utah. Why the big push? Because these models are the tools used to develop the 2023-2050 Long Range Plans across the state. But what are these models? Who uses them? How important are they? How much does it take to update them? What data, expertise, and resources are needed? What challenge can someone expect? What lessons learned can we apply next time? This presentation will attempt to answer many of these questions.

New challenges arrive every time a model is updated, and this time was no exception. The biggest challenge this cycle was the timeline to deliver working models. Delays in the Census data, changes in the traffic analysis zone structure statewide, creation of a new subarea model (Iron County), overhaul of the Dixie and Cache travel models, revamp of the trip generation step for most models, and the inclusion of three new disruptive

Breakout Session - Presenter Information

trend components: telecommute, e-commerce, and connected and autonomous vehicles (CAV) in a short time coupled with limited availability of agency staff and consultants with the necessary expertise created a big challenge to complete every task in time. However, close coordination between all the agencies and their consultants had a positive impact in completing these tasks.

For this model update, all agencies worked very closely to collaborate as much as possible in the development of datasets and changes to the models. Keeping in mind the timeline and the limited resources, agencies and/or consultants developed statewide datasets such as the socioeconomic datasets (outside the Wasatch Front), median income, vehicle costs to assure consistency across models and reduce time and effort to complete. The Interagency Agency Travel Modeling Director also created templates to create consistency across models. All agencies and their consultants met regularly to discuss the status of input datasets, the timeline to have working models, and any questions or concerns. This helped all the agencies work together to create a consistent framework for the models in the state. With this close coordination and regular communication, the Long Range Plans and other transportation studies will be able to use these models for their projects.

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	300A-B

Title: Forecasting demand for novel transport modes

Learning Objective(s):

Attendees will understand the strengths and weaknesses of microsimulation versus choice modeling when modeling complex transport alternatives

Presenter(s):

Gregory Macfarlane (BYU, gregmacfarlane@byu.edu) is an assistant professor of civil engineering at Brigham Young University. His research interests include travel behavior analysis, travel demand forecasting, and the interaction of transportation and land use. He holds a PhD from Georgia Tech and a BS from BYU. He sings tenor and smokes ribs.

Chris Day (WFRC, cday@wfr.org) Originally from New Hampshire, Chris is a big Boston sports fan and enjoys playing tennis, pickleball, rock climbing, biking, and spending time with family. He's a BYU Civil Engineering graduate working towards his Master's in Transportation Engineering. Chris currently works at Wasatch Front Regional Council as a Transportation Data Scientist.

Hayden Atchley (BYU, shaydenatch@gmail.com) is from Boise, Idaho, and is currently pursuing a Master's degree in Civil Engineering at BYU, with a focus on transportation planning and modeling. He plays the French horn in the university symphony and composes music as well.

Abstract:

The advent of novel transport modes has challenged forecasters to develop new methods of capturing behavior and estimating service capabilities. Bike share, e-scooter, ride hail, and autonomous vehicles have been forecasted with activity-based models, multi-agent simulations, spatial analysis, survey data and statistical methods, and even machine learning approaches. Methodologies to model new transport technologies are dissimilar and difficult to access. In this paper, we examine novel mode forecasts generated by different activity-based model and multi-agent simulation mode choice combinations. Using ActivitySim as the activity-based model and BEAM as the multi-agent simulation, we establish 10 different mode choice combinations to analyze ride hail capabilities for a Salt Lake City, Utah case study region. By analyzing ride hail ridership, utilization, and wait times we determine two effective approaches to modeling novel modes using a linked activity-based model and multi-agent simulation. We also determine that linking an activity-based model and a multi-agent simulation is a valid methodology to forecasting novel modes, especially if novel mode choice is kept to only one of those modeling tools. Lastly, we conclude that using the combination of path, person, and location type variables to calculate the mode choice utility is more effective than only using path type variables. Overall, the results of our research give direction to those struggling to forecast new transport technologies with the current disarray of modeling approaches.

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	300C-D

Title: CADD: Overlooked features & recent updates

Learning Objective(s):

- (1) Attendees will be able to list at least two new tools or workflows to try on their MicroStation CONNECT/OpenRoads projects.
- (2) Attendees will be able to guide their teams in selecting whether to use OpenRoads Designer for drainage and utilities on a traditional delivery project.

Presenter(s):

Bob Peterson

Methods Engineer, UDOT Central Preconstruction

bobpeterson@utah.gov

Bob has worked for UDOT for 32 years: the first 10 years in roadway design and the next 22 years in the development of the design software. He has been involved in various projects related to the CADD environment including the switch from Digimap to InRoads and digital delivery implementation.

Dave Hansen

Hydraulics Engineer, Horrocks Engineers

dave.hansen@horrocks.com

Dave recently joined Horrocks Engineers. He has over 16 years of experience working on transportation projects and specializes in drainage design. He worked on developing and updating UDOT's ORD drainage digital delivery workspace while working at UDOT and as a consultant.

Ariel Froerer

BIM Specialist, UDOT Central Preconstruction

afroerer@utah.gov

Ariel has been with UDOT since early 2021. Prior to joining UDOT, she worked as a roadway designer on a variety of transportation projects, including several UDOT digital delivery projects. She currently helps with the development and support of the design software and the implementation of digital delivery.

Abstract:

The majority of UDOT roadway projects are designed using Bentley's MicroStation CONNECT or OpenRoads Designer software. Between Bentley software updates and UDOT workspace improvements, it can be difficult

Breakout Session - Presenter Information

for designers to stay up-to-date on the latest tools and best workflows within the software. The objective of this presentation is to raise awareness of several helpful but under-utilized tools and workflows.

The presentation will include two main sections. The first section will cover tools and workflows that are applicable to all OpenRoads or MicroStation users, including tools that are used for quantity management and sheet production. The second section will focus on discipline-specific tools and will be most pertinent to drainage, utility and roadway designers. During this section, presenters will also discuss when to use OpenRoads for drainage and utility design and what factors teams should consider if they are using InRoads Storm and Sanitary instead.

These topics are relevant to any transportation professionals who are using Bentley software or are considering using them to design UDOT projects. The opportunity to ask questions throughout the presentation will also be valuable to these professionals. At the conclusion of the presentation, attendees will leave with the knowledge to try out several new tools or workflows on their projects.

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	400

Title: Connecting the Dots: Strengths-Based Leadership and Employee Performance

Learning Objective(s):

Describe the process to develop the performance of your team. Identify two action items you can do to develop your team's performance.

Presenter(s):

Allan Harris

allanharris@utah.gov

Allan Harris has worked in the Learning & Development field for 25 years in a wide variety of industries including banking, technology, consulting, and government. He focuses mostly on areas such as Leadership, Technical skills, Competency Models, and Talent Management. Allan has led projects, teams, and departments and understands the challenges that come with leadership positions. Allan currently works on our Employee Development team as a Training Manager focusing on leadership, strengths, and data analysis.

Abstract:

As leaders, we must motivate our teams to perform as high as possible. If we use a natural cycle of performance development, not only do we maximize performance, but we do it in a way where people can do what they do best. We create a positive and engaging work environment and it motivates employees to work hard towards organizational, team, and personal goals. In this workshop you'll get a chance to learn about a performance cycle and the types of conversations leaders have with their teams to promote this kind of environment. We'll apply this knowledge to real-world examples of motivating and developing employees and decide how to make this work with our real teams.

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	E1

Title: UDOT - AGC Roundtable

Learning Objective(s):

An open discussion between the UDOT and AGC regarding various, current construction issues that will impact our construction projects and how the groups address those issues.

Presenter(s):

Betty Purdie

Project Executive

Ralph L. Wadsworth Construction

betty@wadsco.com

Betty graduated from the University of Utah with a BS in Civil Engineering. She is a registered Professional Engineer in the state of Utah. She retired from UDOT having worked most of her career in Construction and Maintenance at Region 2. She has worked the past 12 years at Ralph L Wadsworth as a PM and Project Executive. This has included projects in 4 states with most being design build.

Bryan Griffith

Large Project Manager

Granite Construction Company

Bryan.Griffith@gcinc.com

Bryan has over 20 years of experience in the Heavy/Highway and Civil Construction industry working on complex transportation projects. He has had the opportunity to work in California, Utah, Idaho and Colorado. Most of Bryan's focus has been on reconstruction of urban corridors where space is limited, complex utility coordination is needed, and severe stakeholder impacts are trying to be mitigated. He has been the project manager through preconstruction and construction on UDOT's first CMGC and first Progressive Design Build. He has been the project manager on 8 different alternative procurement projects. In both CMGC and PDB he has overseen the preconstruction where design efficiencies, means and methods, schedule, innovation, and risk are analyzed and optimized to fit each project's needs. Bryan is currently working on scoping and budget for UDOT's second PDB Project, an updated interchange with 2.5 miles for urban reconstruction and widening.

Eric Chaston

Director of Construction

UDOT Central Construction

echaston@utah.gov

Breakout Session - Presenter Information

Eric has been with the Department for 22 years starting as a Transportation Technician in Region 2 Maintenance. Eric obtained his Civil Engineering degree from the University of Utah in 2008. Since that time, he has spent the majority of his career in construction serving as a Field Engineer, Resident Engineer, District Engineer and is currently the Director of Construction.

Bill Lawrence
UDOT Central Materials
Materials and Pavements Director
billlawrence@utah.gov

William (Bill) Lawrence has worked for the Utah Department of Transportation for 32 years, the past 14 years in leadership roles as Materials and Pavements Director and Program Finance Director. His other UDOT experience includes Region Pre-Construction Engineer, Planning Statistics Director, Concrete Engineer, Materials Engineer and Urban Planning Engineer. He serves on the national AASHTO Committee for Materials and Pavements and is a member of two Transportation Research Board (TRB) Committees; Fabrication and Inspection of Metal Structures and Pavement Condition Evaluation. Bill has a Civil Engineering Degree with a Minor in Mathematics from Utah State University and is a licensed Professional Engineer in the State of Utah.

Abstract:

Representatives from UDOT Central Construction and AGC will discuss their respective views of how recent issues have impacted and will continue to impact UDOT's construction projects and discuss ways to mitigate those issues, as well as responding to questions from the audience.

Session Day and Time	Assigned Room
Wednesday Oct 26 8:15 - 9:15	Draped Hallway

Title: Community Exploration for Walking & Biking Design

Learning Objective(s):

Attendees will learn through a boots-on-the-ground walk audit how our built environment can have obstacles and barriers for those walking, biking, and accessing transit.

Attendees will understand how engaging with key groups through inclusive engagement can identify community needs and drive creative solutions.

Attention: This session is limited to 60 participants and requires sign up in advance. Please visit the Registration Desk or the Horrocks booth in the exhibit hall to sign up. Sign up ends Tuesday, October 25th at 7:00 PM or when the session is full.

Presenter(s):

Alex Fisher-Willis

Project Manager, UDOT Region 2

afisher@udot.gov

Alex has worked for UDOT for over 10 years, most recently as a Project Manager. She currently manages environmental, design, and construction for a variety of projects. She loves the outdoors and regularly travels around town on her bike. She is interested in creating corridors for all modes of travel.

Alexis Verson

Senior Planner, Horrocks

alexis.verson@horrocks.com

Alexis is a Senior Transportation Planner and AICP for Horrocks with 10 years of experience. As a multimodal planner, she enjoys facilitating community-driven solutions. Alexis focuses on developing comfortable and complete facilities for people walking, biking, and accessing transit with the goal of complete networks for all users.

Katie Kourianos

Public Involvement Manager, Horrocks

katiek@horrocks.com

Horrocks' Katie Kourianos is a skilled communicator with 14 years' experience managing outreach and communications campaigns. Her work includes over 100 roadway projects, many with active transportation/multimodal facilities. She understands design and construction processes and collaborates with contractors, design teams, stakeholders, and the public to answer questions and reach consensus.

Jessica Williams
Public Information Officer, Idaho Transportation Department
jessica.williams@itd.idaho.gov

Jessica is a Public Information Officer with the Idaho Transportation Department. For five years, she has spearheaded messaging regarding transportation projects and the important benefits they bring to communities. She enjoys sharing her personal and unique perspectives on the usability of transportation systems for those with special mobility needs.

Abstract:

This session will center on the efforts that Horrocks and UDOT have been working on over the last year focused on bringing walking and biking needs to the forefront of planning and design work. Historically, many UDOT facilities have focused on moving cars, with a smaller emphasis on comfortable and connected infrastructure for those who walk, bike, or ride transit.

The objective of this session is to highlight several studies and projects that have dedicated time and resources to understanding, analyzing, and recommending facilities for walking and biking at the early stages of the process to ensure these networks are well integrated and not an afterthought to the project or process.

The session will include a brief presentation from speakers on two to three current examples of the walking and biking planning processes with UDOT projects and studies. Then, the session attendees will transition to a real-world walking audit similar to what Horrocks and UDOT deploy for real projects. The walk audit will be followed by a workshop, summary of best practices, and a debrief.

The goal is to educate planners and engineers about the importance of engaging our communities and stakeholders early to ensure well integrated and appropriate walking and biking facilities.

Breakout Session 5 - Wednesday, October 26 | 10:00 - 11:00 AM

Session Day and Time	Assigned Room
Wednesday Oct 26 10:00 - 11:00	200A

Title: Easy-access resources for roadway safety training

Learning Objective(s):

Attendees will learn what type of content is available on the new website and will be able to use it to make safer decisions in design, operations, and analysis.

Presenter(s):

Jeff Lewis - Central Traffic & Safety

Jeff has worked in the Transportation Engineering industry for over 16 years, including 10 years at the Utah Department of Transportation (UDOT) working in Region 2 in Roadway Design, Traffic & Safety, and Permits. Jeff now works as the Safety Programs Engineer with UDOT Central Traffic & Safety.

Ivana Vladislavljjevic - Central Traffic & Safety

Clancy Black - Wall Consulting Group

Abstract:

The Traffic & Safety Division has developed a Traffic Safety Standards website containing critical short-read traffic safety training information to help grow our safety knowledge and culture. The site provides important information such as predictive modeling guidelines, how to identify patterns in crash data, and how to select the best countermeasure. The website serves as a guide with simple explanations and links to additional resources when applicable.

Engineers and planners have dozens of manuals, standards, and policies that they learn and follow beginning early in their career. These resources shape our thinking and approach to design and transportation system management. Conversely, most transportation safety knowledge is developed over time and through experience, you can't just read it all at once. In order to reduce fatalities more quickly everyone has to learn the nuances of safety decision making transportation.

This presentation will help traffic engineers, planners, and project managers understand what traffic safety standards and training is available on the site and how it will help them make Utah's roads are safer.

Session Day and Time	Assigned Room
Wednesday Oct 26 10:00 - 11:00	200A

Title: Evaluating systemic resiliency of Utah's highways

Learning Objective(s):

Attendees will learn of efforts to evaluate systemic resiliency of highway assets beyond immediately diverted traffic.

Presenter(s):

Gregory Macfarlane (BYU, gregmacfarlane@byu.edu) is an assistant professor of civil engineering at Brigham Young University. His research interests include travel behavior analysis, travel demand forecasting, and the interaction of transportation and land use. He holds a PhD from Georgia Tech and a BS from BYU.

Natalie Gray (BYU,) is a masters student at Brigham Young University studying civil engineering with a transportation emphasis. She is researching transportation demand model parameter sensitivity for her thesis. Her plans are to enter the consulting field after graduation

Max Barnes (Kimley-Horn) joined Kimley-Horn as a transportation engineer in their Las Vegas office in 2021. Max completed his MS and BS degrees in civil engineering at BYU.

Abstract:

The Utah Department of Transportation (UDOT) manages and maintains a complex statewide network of highways, consisting of bridges, tunnels, mountain passes, and canyon roads that are at risk from various natural or human hazards. Additionally, the remote location of many of these facilities presents maintenance challenges while preventing the construction of redundancies. Understanding the systemic effects of a link closure – and thereby gaining an understanding of the resilience of the transportation network to hazards – has been an agency priority.

Traditional methods of evaluating the systemic criticality of transportation network links focus on the volume of affected traffic or evaluating the increase in travel time that would be experienced by users. These methods do not fully represent human behavior: A user’s ability to choose an alternate route, mode, or even destination might mean that the transportation system can better tolerate the loss of certain high-volume links in areas where alternatives are plentiful or at least available.

The presented research describes the creation and evaluation of a model designed to estimate the relative systemic criticality of highway links on Utah’s highway network. This model employs a logit-based accessibility framework sensitive to changes in destination choice, mode choice, and route path. The current Utah

Breakout Session - Presenter Information

Statewide Travel Model (USTM) does not incorporate user mode or destination choice in its design, making it unsuitable for this task in its present condition. Consequently, this research describes the development of a new model framework – employing USTM data elements where possible – that evaluates the cost of impaired destination choices and mode choices for home-based work, home-based other, and non-home-based personal trips resulting from a damaged highway network. Other trip purpose categories could not be represented in the logit-based framework and are estimated using a parallel methodology of increased congested travel time. The accessibility changes estimated by this model can be readily converted to dollar values for cost-benefit analysis and project evaluation.

The model framework is applied to 41 scenarios representing complete highway closures at strategic locations on Utah's highway network. The results – when compared to the travel-time based costs method – suggest that the two approaches result in a materially different ranking of link criticality. At the same time, a collection of links appear to be the most critical in both methodologies: I-80 near the border of Tooele and Salt Lake counties, I-80 in Parleys Canyon, I-84 in Weber Canyon, and I-15 at the point of the mountain between Draper and Lehi. The primary recommendation of this research is that USTM should be improved to include additional choice-based frameworks, so that analyses such as this can be conducted more routinely. Additionally, the model results suggest that the freight trip sector experiences substantially more travel costs than personal trip purposes; developing methods to estimate freight destination and route choice – including trips that divert out of Utah entirely – would be a necessary extension to this research.

Session Day and Time	Assigned Room
Wednesday October 26 10:00 - 11:00	200C

Title: How drones are revolutionizing UDOT projects

Learning Objective(s):

Attendees will gain knowledge about the proven use cases with UAS on UDOT projects and hopefully come away from the presentation with new ideas about how drones can be utilized in their jobs. Attendees will also learn what it takes to become a UAS drone pilot for UDOT and all of the steps involved with that process.

Presenter(s):

Riley Lindsay

UDOT Statewide Surveyor

rlindsay@utah.gov

Riley Lindsay has worked as the UDOT Region 4 Survey Manager and the Region Right of Way and Utility Designer for Region 4. His current role with the Department is as the Statewide Surveyor. He is a licensed surveyor, and currently leads the development of innovative processes related to drone aerial imagery and data collection. He loves to find ways to implement technologies such as UAS, LiDAR and GIS to make people's jobs easier and more efficient.

Ryan Ferrin

UDOT Statewide Maintenance Engineer

rferrin@utah.gov

Ryan Ferrin is the Statewide Maintenance Engineer working at UDOT Central. He has been working for UDOT for 13 years and started his career as an Intern in the Asphalt Mix Laboratory at UDOT Central in 2009. He enjoys any activity in the wilderness away from civilization

Ben Goddard

UDOT TOC Control Room Manager

bgoddard@utah.gov

Benjamin Goddard was a member of the UDOT Incident Management team from 2018 - 2022. He became a lead in the spring of 2019 and started training his team in the use of drones. Ben is passionate about aviation, safety, and the future of transportation. Ben has been involved in the transportation industry for more than 18 years.

Paul Damron
Utah Division of Aeronautics
Advanced Air Mobility and Asset Manager
pdamron@utah.gov

Paul Damron is the Advanced Air Mobility and Asset Manager at Utah Division of Aeronautics. He has an innovative aspect for new and emerging technologies in GIS, Advanced Air Mobility, and Uncrewed Aircraft System. For more than 10 years, he has developed a wide background in geospatial development, analytics, GIS, and power BI.

Abstract:

UAS or drones are revolutionizing the way we are doing business on UDOT projects. This presentation will highlight some of the amazing ways that drones have been used as a tool to make our jobs easier, quicker and more cost efficient. We will have presentations from UDOT personnel in various job positions at the state that have utilized UAS technology on their projects. Some of these disciplines include Maintenance, Emergency Response, IMT, Preconstruction, Construction, Geotech and Aviation. The objective of this presentation is to give the audience a wide variety of use cases in an attempt to spark ideas about how drones might be utilized within their discipline. The presenters will focus on specific ways that drones either made their job safer, quicker or more cost efficient. We will also focus on what it takes to become a UDOT pilot or if you are a consultant the process that needs to be followed to fly within UDOT right of way.

Session Day and Time	Assigned Room
Wednesday Oct 26 10:00 - 11:00	200D

Title: MDS Digital Delivery Update: Project Use Case

Learning Objective(s):

Attendees will be able to scope Digital Delivery projects more accurately due to a better understanding of each Model Use case, as defined in Chapter 4 of UDOT's Model Development Standards (MDS). Attendees will be able to utilize the MDS and Model Development and Delivery Plan (MDDP) during Digital Delivery projects to enhance communication among the project team during design.

Presenter(s):

Vaughn Nelson, P.E.

Statewide Design Engineer

UDOT

vanelson@utah.gov

Vaughn has been with UDOT for 10 years in design and construction. He is currently the Statewide Design Engineer. His primary responsibilities are managing and updating the roadway design standards and helping with whatever project teams need to deliver projects. He has been involved in the development and upcoming implementation of the Design Manual Drawings for Bikeways to meet current UDOT and AASHTO design requirements to accommodate all users with different abilities within the UDOT Right-of-Way.

Nicole Williams, P.E.

Project Manager

Kimley-Horn

nicole.williams@kimley-horn.com

Nicole has 16 years of experience designing and managing UDOT projects. Her experience includes leading the team for UDOT's Digital Delivery Data and Process Development project that assisted UDOT in the development of their DD program. She is currently working with UDOT on updating the draft MDS.

Alexis Walters, P.E.

Transportation Engineer

Kimley-Horn

allie.walters@kimley-horn.com

Alexis is a professional engineer focused on roadway engineering and DD design and implementation. She has developed standards and training material for DD processes in conjunction with UDOT Central

Breakout Session - Presenter Information

Preconstruction. Alexis has assisted in the implementation and final design of DD projects within the various UDOT regions.

Abstract:

We presented at last year's UDOT Conference on the newly developed Model Development Standards (MDS). This draft is available on the Digital Delivery website for project teams to use. This presentation will give an overview of the MDS and a status update from UDOT Central on the timeline for standardization of the MDS. This presentation will focus on how we utilized the MDS and a Model Development and Delivery Plan (MDDP) on the I-15 Springville/Spanish Fork Interchange Digital Delivery Project. Members of the design team were assigned to take part in a Digital Delivery Task Force.

The team came across challenges and worked with Region 3 and UDOT Central to develop and overcome those challenges. The lessons learned during this project can be utilized to advance the tools and processes used during Digital Delivery. The presentation will also demonstrate the advantages of collaboration and communication among the project team.

We will also provide an in-depth look at the design requirements the team followed related to each design element's required Level of Development, attribution, and annotation. The Task Force communicated and assisted in the development of deliverables by milestone and will share about the Model Use cases used in the project. We will share feedback from similar pilot projects, as well as our own experience using the MDS, and how this has emphasized the need for incorporating a MDDP to develop BIM designs to meet the needs of Model Use cases.

Session Day and Time	Assigned Room
Wednesday Oct 26 10:00 - 11:00	300A-B

Title: Leading and Influencing Remote Teams

Learning Objective(s):

The session is designed to develop leaders to hone specific leadership skills that are critical to leading and influencing remote teams. We will explore leadership practices that can support accountability, influencing remotely and foster connections.

Presenter(s):

Angelique Meyer PCC, MBA

Angelique is the newest member of the Leadership and Organizational Development team at DHRM. She is a Leadership expert and Executive Coach.

For over 20 years, Angelique has designed and delivered talent management initiatives to organizations. She has strong business acumen across numerous industries from working with executives and senior leaders. She has developed and facilitated a comprehensive suite of courses that focus on driving high performance cultures throughout North America, including; team effectiveness, growth mindset, mitigating bias, and coaching skills for leaders.

Angelique is passionate about leadership and she is a graduate of several Master Level Leadership programs. Angelique is a Professional Certified Coach, with a PCC designation and holds an MBA. She also has her pilot's license and has traveled extensively across the continent.

Abstract:

Over the past 2 years, UDOT leaders have been forced to make an abrupt shift to a full or partial remote work environment. This means that today, many leaders meet with their team members in person less frequently. The transition has been difficult and presents many challenges. This shift has left many leaders feeling like they are still learning about and adapting to manage remote teams.

There are potential benefits associated with remote work and potential risks that need to be mitigated. The session is designed to develop leaders to hone specific leadership skills that are critical to leading and influencing remote teams. We will explore leadership practices that can support accountability, influencing remotely and foster connections.

Session Day and Time	Assigned Room
Wednesday Oct 26 10:00 - 11:00	300C-D

Title: Inspecting Reinforcing Steel

Learning Objective(s):

- Learn fundamentals regarding reinforcing steel inspection.
- Learn about additional information and resources available from the Concrete Reinforcing Steel Institute.

Presenter(s):

Paul Dye
Pacific Northwest Manager, CRSI
pdye@crsi.org

As the CRSI Pacific Northwest Manager with over 40 years of combined roles in the reinforcing steel industry Paul provides a working devotion and understanding to promoting, sustaining, and enhancing the reinforcing steel industry. With almost his entire career located in the Pacific Northwest, he maintains an extensive working knowledge of operations, sales, estimating, detailing, and fabrication within the industry.

For over 15 years Paul was Vice President and COO of (CRSI member company) Precision Rebar & Accessories, Inc., Vancouver, WA. Paul was Previously Region Manager for Graham Steel in Vancouver, and worked as a project manager for Western Coating in Ogden, UT. He started his Reinforcing Steel career with Graham Steel in Kirkland, WA, where he advanced his experiences and extensive working knowledge of the many aspects the industry provides.

Paul's working relationships with owners, design professionals, government agencies, academia, and contractors within the reinforced concrete industry enhances CRSI's promotional and technical team.

Abstract:

Quality control and Inspection are necessary to ensure compliance with the contract documents and the building code applicable to the project under construction. Inspection is an important phase of the construction process that ensures a high quality, well-built structure. Almost every structure requires reinforced concrete somewhere on the job. The type and placement of the reinforcing steel in that concrete determines its structural capacity and performance. Inspections routinely occur as part of a quality control program initiated by the General Contractor, Owner, Engineer, or governmental agency (Federal, State, County, City), either individually or collectively, and serve to verify that construction is proceeding in a way that will result in a safe and durable product.

Breakout Session - Presenter Information

Founded in 1924, the Concrete Reinforcing Steel Institute (CRSI) is a technical institute and Standards Development Organization that stands as the authoritative resource for information related to steel reinforced concrete construction. CRSI offers many technical publications, standards documents, design aids, reference materials and education opportunities, and is a good resource to inspectors, consultants and contractors who are looking for a stronger understanding of reinforcing steel in its various types and applications.

Session Day and Time	Assigned Room
Wednesday Oct 26 10:00 - 11:00	400

Title: Polymers - Repairs Under Roads Without Excavation

Learning Objective(s):

Attendees will be able to initiate emergency or permanent repairs to settled pavements (highway or airport) or structures caused by slides, erosion, frost heave, utility failures, initial construction deficiencies, landfill movement or long term load induced wear and tear. They will also be able to plan, design and budget for the cost of those repairs given the statistical frequencies that those types of problems occur on the system.

Presenter(s):

Kent A. Nichols, P.L.S
knichols@allwest.net
CST – Field Engineer 20 yrs. (2002-2022)
Expanding Structural Polymers - Maintain & Repair Buildings, Structures and Highways.
UDOT – 42 yrs. (1960-2002, Retired R.E.)
Transportation Work - Design, Construction, Maintenance and Reconstruction of Major Hwys. -
Project Administration for all types of Hwy. Work

Ron Youngman, P.E.
2young2bron@gmail.com
CST – Field Eng. 6 yrs. (2017-2022) - ESP's - Maintain & Repair bldgs./Structures/Hwys.
ACPA CO/WY - 28 yrs. (1987-2015) - Marketing, Design, Construction and Maint.
Engineering Consultant - 8 yrs. (1980-1987) Design & Construction Management for
Transportation, Bldg Construction and Pavement Management Systems

Abstract:

Structural Polymers (ESP's) have continued to be a cost and time saving maintenance tool for transportation, extending the lives of settled roads, rails, drainage systems and structures, since their introduction in the 1970's. Applications for using ESP's expanded during the pandemic due to the creative thinking of geotechs and maintenance personnel that thought of expanding the definition of "Poly Anchors". Conventional grouting doesn't expand into the surrounding soil like ESP's do, thus increasing the potential volume of materials that get stabilized.

This method has been applied to holding back concrete structural walls but also has an application of increasing the mitigation of slide potential under mountain roads. The use of ESP's without the use of soils nails or tie-back rods has already been successful in mitigating slides on US-550 south of Silverton, CO. In

Breakout Session - Presenter Information

In addition to mitigating future slides, the ESP's lifted the settled asphalt and eliminated the need for a skin patch and the extra "dead-load" weight and dynamic impact from compacting additional asphalt in that area.

In this presentation, examples (completed projects) will be shown on the many uses of ESP's that have been listed, as well as the methodology for future slide mitigation. Demonstrations will also be given during the presentation to show how the material works to maintain roads, bridges, rail lines (heavy and light) and drainage systems. All of this work is done without the extra time and cost of excavation and backfill.

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Wednesday Oct 26 10:00 - 11:00	E1

Title: Deputy Directors Session: All Projects, All Users

Learning Objective(s):

Presenter(s):

Teri Newell, P.E, is UDOT's Deputy Director of Planning and Investment. In this role she guides UDOT's response to Utah's growing population and advances in technology. Teri previously served as UDOT's Region Three director for five years and spent 10 years taking the Mountain View Corridor from a concept, through the environmental process, to completion of the initial phases. Teri earned her Civil Engineering Degree from Iowa State University.

Lisa Wilson, P.E, is UDOT's Deputy Director of Engineering and Operations. She has worked for UDOT since 1998, most recently working as Region Director in UDOT Region Two. Lisa also served as Region Director in Region One, Deputy Director in Region Two, Preconstruction Director, Region Two Program Manager and Project Manager. She is a graduate of Utah State University.

Abstract:

"All Users" is a decision-making mindset that prioritizes people and community context to create a safer, more reliable and accessible transportation system. The result of an All Users approach is to provide people with transportation choices so they can get where they want, in the way they want, safely. Join Deputy Directors Lisa Wilson and Teri Newell to learn more about the All Users approach and how we can integrate it into all projects.

Breakout Session 6 - Wednesday, October 26 | 1:45 -2:45 PM

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	200A

Title: URS Tier 1

Learning Objective(s):

Presenter(s):

Vicky Steinbrech, CFP® is a Retirement Planning Advisor at Utah Retirement Systems. Vicky started working for Utah Retirement Systems in late 2019. Prior to starting with URS, Vicky worked as a controller of a small private company where her responsibilities included retirement planning. Prior to working in small business, Vicky worked for KeyBank for 18 years.

Abstract:

Come learn about Utah Retirement Systems Tier 1 retirement savings option.

Session Day and Time**Assigned Room**Wednesday
Oct 26
1:45 - 2:45

200B

Title: UDOT Fiber Optic Training Program**Learning Objective(s):**

- Contractors, inspectors, and UDOT staff will be made aware of the new UDOT fiber optic training program, how to access the different modules, and why adherence to UDOT's fiber optic standards is critical to new fiber projects and ongoing maintenance.
- The session and attendees will spread awareness of this training resource. This will result in increased longevity and quality of UDOT fiber optic infrastructure as staff and consultants understand UDOT policies and procedures for fiber optic placement.

Presenter(s):

Lynne Yocom

Fiber Optics Director, UDOT

lyocom@utah.gov

Lynne Yocom is UDOT's Fiber Optics Director. She has worked with fiber optics and telecommunication companies for the last 23 years and has successfully created public private partnerships to expand and build UDOT's fiber optic network. Lynne currently serves on the Utah Broadband Advisory Council and several other technology-centered boards.

Carrie O'Neill

President, O'Neill & Company

coneill@oneillandco.net

Carrie O'Neill brings 30 years' experience in traffic signal, roadway, and ITS design. Ten years ago, she launched O'Neill & Company to provide Excellence in Engineering to her clients. She and her team have provided fantastic training programs to UDOT with the Fiber Optic Training Certification being the newest addition!

Brad Smith

Director of Fiber Optics, Horrocks

BradS@horrocks.com

Brad Smith has enjoyed more than 22 years in the fiber optics industry, in both public and private sectors. His experience includes field installation and splicing, engineering design, project management, and construction management. He has been involved in many great UDOT ITS/ATMS projects during his 13 years with Horrocks.

Abstract:

The purpose of this breakout session is to raise awareness of the new UDOT fiber optic training program. This training has been developed in response to issues regarding poorly placed fiber optic infrastructure. We have found that when fiber optic infrastructure is placed in nonconformance with UDOT specifications, additional project funds, change orders, and network outages occur. This increases the cost to the state through additional funding, time, and resources.

UDOT has tasked Horrocks and O'Neill & Company with creating training modules to help alleviate these concerns. The training currently has three modules: Installation, Splicing, and Testing and Inspection. The training is available to UDOT personnel, contractors, and inspectors, and its purpose is to reduce improper placement of UDOT fiber optic infrastructure on projects, increasing the longevity of UDOT's network and resulting in cost savings on projects and future maintenance. This training will be extremely beneficial to UDOT project personnel and consultants and will build a better understanding of UDOT's fiber optic specifications and best practices for installation on state projects.

Because the UDOT fiber optic training modules are a fairly new resource, they have not yet been widely utilized by UDOT staff and contractors. This session will expand on the problems and solutions addressed in the training and help attendees understand how and why they should take advantage of the training, even though it is not currently a requirement. Attendees will also have opportunities to ask questions of the training's designers and to get more in-depth information about UDOT's fiber optic policies and procedures.

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	200B

Title: The Role of Big Data in Traffic Engineering

Learning Objective(s):

Understand what big data means for traffic engineers and some use cases on how to use it.

Presenter(s):

Vijay Sabawat Ph.D.

Transportation Data Scientist

Felsburg Holt & Ullevig

As a proven data analyst and asset manager, Vijay consults with the Colorado Department of Transportation and local agencies to manage the planning, design, and implementation of Intelligent Transportation Systems. He is a problem-solving software developer and traffic engineer who improves tools and infrastructure to maximize productivity and to minimize system downtime. As a Doctoral candidate, Vijay worked closely with the Wyoming Department of Transportation to develop a machine learning algorithm for deploying variable speed limits on the Interstate 80 corridor.

Abstract:

Traditionally, traffic engineers rely on the data that is collected from the field for a limited period to recommend changes. This is changing rapidly with the advent of new technologies and the availability of big data. Many agencies are deploying intelligent transportation devices in the field to better understand traffic patterns, congestion, and more. Using big data in traffic engineering can help agencies make better-informed decisions and also to measure the impact of the decisions using performance metrics. With these datasets, transportation firms can better anticipate future needs and ensure that they can better serve their customers and drivers.

One of the most common questions in the transportation industry is, "How is data analytics used?" This presentation will provide some insights on what are the few big data sets that are readily available for the traffic engineer and how one can utilize these datasets to improve traffic operations and maintenance. The presentation also includes a few use cases on how big data is used to improve traffic operations and safety. Big data comes with Big Responsibility, the outcomes of the data analytics need to be implemented with the understanding of the data sources and the context. As technology improves, so do new challenges for the transportation industry, so we will explore some of the challenges and how to deal with these as well in this session.

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	200C

Title: Making the Grade: TIF/TTIF Prioritization Process

Learning Objective(s):

Attendees will leave the session with a clear understanding of the TIF/TTIF Prioritization Process. They will understand the data that is behind the models and will be able to see how a project gets a high or low ranking within the models based on its characteristics.

Presenter(s):

Stephanie Tomlin

Stephanie Tomlin is a Transportation Program Manager at The Utah Department of Transportation (UDOT) in the Central Planning Division. She oversees modeling, data, and GIS activities within Planning, which includes the prioritization modeling the department uses to rank projects for funding consideration within the four project types of Highway, Active, Transit and First/Last Mile (connections to transit). Stephanie is also involved in active transportation planning efforts across the department, including trail extension projects, and grade separated crossing projects. Stephanie holds a masters degree from Utah State University in Bioregional Planning, she is a member of APA Utah, and is on the Board of Directors for Bike Utah.

Evan Enarson-Hering

Evan Enarson-Hering is a Principal of Cambridge Systematics, Inc. (CS) with more than 15 years of experience in integrated planning and policy, including applied policy analysis, performance management, regional economics, strategic planning, and socioeconomic indicators. Evan has direct expertise in engaging stakeholders, facilitating workshops, effectively writing, and visualizing data. He has supported work covering a wide variety of topics, including economic development, finance and tax policy, organizational strategic planning, workforce and education, climate change and energy, trade and logistics, as well as transportation policy development and analysis. Since 2017, Evan has supported UDOT's TIF and TTIF Prioritization decision support models and prioritization process design efforts.

Abstract:

You've heard it before; Transportation Investment Fund and Transit Transportation Investment Fund (TIF and TTIF) Prioritization modeling used to determine funding for projects. Sounds pretty important, right? It is! And we want to dismantle the black box of what the models are, how and when they are used and recent updates to them.

Breakout Session - Presenter Information

Come to this session to learn about the four TIF/TTIF prioritization models, which include the TIF Highway, TIF Active, TTIF Transit, TTIF First and Last Mile. Projects are grouped by type and ranked within these spreadsheet based models. Each of the models are rooted in UVision and use evaluation criteria that support the four pillars of Good Health, Strong Economy, Connected Communities and Better Mobility. These outcome areas drive the metrics and data used to evaluate projects being considered for TIF/TTIF funding. We will walk through these outcome areas and discuss the data being used for each of the four models, taking the time to explain why we are using the data we are. We'll also discuss updates to the models and changes that are on the horizon.

Understanding these models will help those interested be aware of how projects are being assessed and be confident in the results of the evaluation. The goal of the process is to be transparent and easy to follow.

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	200D

Title: Protecting Against the Impacts of Climate Change

Learning Objective(s):

Attendees will understand how climate stressors will impact our current infrastructure, like roads and bridges, and ITS and safety systems, and identify adaptation and increased maintenance costs and identify economic impacts of infrastructure interruptions.

Presenter(s):

Paul S. Chinowsky, PhD

Director, Resilient Analytics, Stanley Consultants

chinowskypaul@stanleygroup.com

Dr. Paul Chinowsky is the Founder and Director of Resilient Analytics, a Stanley Consultants company. He focuses on the impact of climate change on infrastructure of all types including potential damages, costs, and adaptations. He has worked in over 50 countries and been an author on national and international climate assessments.

Abstract:

As the world experiences the growing effects of climate change, future focused analytics will be critical to prioritizing human safety and capital investments. Resilient Analytics, a Stanley Consultants Company, has developed proven climate, engineering and economic models that help clients understand how climate stressors will impact infrastructure and people, determining future fiscal costs and risks to communities and organizations.

Resilient Analytics provides insight on adaption investments that are more cost-effective than reactive approaches and have worked in over 50 countries, with clients ranging from county governments to international banks. Resilient Analytics produces actionable insights that have been used to identify millions of dollars in savings for clients while reducing the near-term and long-term risks to critical operations

Resilient Analytics will address challenging climate change driven issues including: • Extreme heat impacts on roads and transportation infrastructure • Neighborhood level analysis of risk-reduction and adaptation opportunities • Infrastructure and social responsibility impact from wildfire risk • Analysis of HVAC needs given future climate projections and the impact on maintaining healthy work and living environment

Examples of past work we have completed that will be illustrated in our presentation. Our presentation is highly visual, relatable, and interactive. Attendees will understand how climate stressors will impact our current

Breakout Session - Presenter Information

infrastructure, like roads and bridges, and ITS and safety systems, and identify adaptation and increased maintenance costs and identify economic impacts of infrastructure interruptions.

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	300A-B

Title: SDDM Updates**Learning Objective(s):**

- Learn what has changed in the updated SDDM.
- Learn about future plans.

Presenter(s):

James Corney has been part of the Structures Division for the last 7 years with a major focus on Structures Standards and manuals. Before moving to Utah with his wife and two boys James worked as a lead designer designing bridges and buildings in Las Vegas Nevada for 10 years.

Abstract:

The SDDM is the Structures Division document which provides detailed instruction and requirements for all structures projects funded by UDOT. The changes included in this update affect every Structures project and are important for anyone who designs or constructs UDOT structures to know. The 2022 SDDM, released in September, is the first major update to the manual after 5 years and includes changes to nearly every chapter. Although most changes are minor and work to clarify the Department's intent and conform UDOT's manual with national standards, some changes are UDOT specific and will change expectations for projects. This presentation will discuss the changes to the SDDM, but will also discuss the manual in general terms and introduce it to people who may not be familiar with its method of distribution, and as this manual represents updates caused in large part by comments provided to the Structures Division, some explanation to the method of comment submission and intermediate updates will be provided.

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	300A-B

Title: BMM Updates**Learning Objective(s):**

- Learn what has changed in the updated BMM.
- Learn about future plans.

Presenter(s):

Becky Nix is the Bridge Management Engineer in the Structures Division at UDOT. She graduated from the University of Utah and worked as an intern in Region 2 Maintenance for four years while in school. Upon graduation she worked in Hydraulics for the Maryland State Highway Administration for two years. For the last 15 years in various roles including design, planning, programming, and inspection.

Abstract:

The BMM is the Structures Division document which provides detailed information into structural asset management policies and procedures as it relates to UDOT inventoried bridges. The changes included in this update affect every Bridge, both state and locally owned and are important for anyone who owns, maintains, designs or constructs UDOT structures to know. The 2022 BMM, released in September, is the second major update to the manual and includes changes to nearly every chapter. Although most changes are minor and work to clarify the Department's intent and conform UDOT's manual with national standards, some changes are UDOT specific and will change expectations for projects.

This presentation will discuss the changes to the BMM, but will also discuss the manual in general terms and introduce it to people who may not be familiar with its method of distribution.

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	300A-B

Title: GMOI Updates

Learning Objective(s):

- Learn what has changed in the updated GMOI.
- Learn about future plans.

Presenter(s):

Grant Gummow
UDOT

Abstract:

The GMOI is the Structures Division document which provides detailed instructions and requirements for all projects funded by UDOT with geotechnical items. The changes included in this update affect every project with geotechnical items, and are important for anyone who designs or constructs UDOT geotechnical items to know. The 2022 version of the GMOI, released in September, is the first major update to the manual after 5 years and includes changes to nearly every chapter. Although most changes are minor and work to clarify the Department's intent and conform UDOT's manual with national standards, some changes are UDOT specific and will change expectations for projects.

Session Day and Time**Assigned Room**Wednesday
Oct 26
1:45 - 2:45

300C-D

Title: UDOT's Long-Range Plan & Why You Care About it?**Learning Objective(s):**

Attendees will understand the LRP process, where UDOT currently is in that process, and how their project may show up on that plan and what that means for project implementation.

Presenter(s):

Jay Aguilar

State Long Range Planning Manager, UDOT

Jay is a professional land use and transportation planner with experience working in Utah, Hawaii and California. He has worked in the public and private sector in planning, economic development and marketing. His Utah government work experience has allowed him to work at the city, county, region and now state levels from Logan to St. George. He is currently the UDOT Long Range Planning Manager.

Kim Clark

VIA Consulting

Christopher Chesnut

Urban Planning, Manager

UDOT

Abstract:

UDOT's LRP process has become increasingly important in the last few years as the programming of TIF and TTIF funds now comes from projects prioritized in the long-range plan. With future transportation needs that outpace the availability of resources, understanding how projects are included and phased in the Long Range Plan is even more important.

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	300C-D

Title: Emerging Areas Program Introduction

Learning Objective(s):

Inform UDOT and consultants on the current Emerging Areas program direction.

Presenter(s):

Travis Hair
 UDOT Emerging Areas Project Manager
 thair@utah.gov

Travis Hair moved to UDOT Planning at the beginning of 2022 after spending 7 years in municipal planning and has been developing the Emerging Areas Program. Travis is a graduate of The University of Arizona (B.A. Studio Art & Theater) and Weber State University (B.S. Geography).

Jordan Backman
 UDOT Urban Planning Manager
 jbackman@utah.gov

Jordan Backman has worked for UDOT since 2016. His current work includes Federal grants, freight planning, emerging areas, and managing the Technical Planning Assistance program. He graduated from Brigham Young University with a B.S. in Geography and from the University of Utah with a Master of City and Metropolitan Planning.

Abstract:

The Emerging Areas program was created to provide additional transportation planning resources to rural areas of the state that are expected to see significant population and commercial growth in the near future. The focus is on areas not already served by an MPO and that are ready for discussions about their transportation futures. In the past, transportation need discussions have occurred when there was already an existing safety or traffic issue. One of the major goals of the Emerging Areas program is to have communities talk about transportation ideas now, before more growth creates impacts, and move towards a point where plans are already in place to deal with the impact of a growing population and where they are in a better position to get project funding.

Using a Solutions Development process, the program initially aims to help communities identify their overarching transportation goals, document connection points between the different cities and counties for roads, active transportation and transit, and develop work plans for each involved entity to advance planning work and goals.

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	400

Title: Words Matter: Evolving language in transportation

Learning Objective(s):

- Properly use messaging and language that reflects the evolving transportation culture and objectives.
- Adjust language by audience when communicating about the work we do.

Presenter(s):

Elizabeth McMillan, UDOT Communications

Nichol Bordeaux, UTA Community Relations

Nichol Bourdeaux has over 20 years of experience working in Public Administration. As the Chief Planning and Engagement Officer for the Utah Transit Authority, she oversees Community Engagement, Customer Experience, Customer Service, Innovative Mobility Solutions and Planning.

Mike Sobczak, WFRC Government Affairs

Abstract:

Session Day and Time	Assigned Room
Wednesday Oct 26 1:45 - 2:45	E1

Title: Understanding Context Classifications in the Design Process

Learning Objective(s):

- Attendees will gain a better understanding of what Context Classification is, how to include context in the planning/design phase for UDOT's projects and how to justify Design Exceptions for context needs.
- We will also highlight UDOT's plan to develop and implement Context Classifications at a Statewide level and what impact that will have on our planning and design process.

Presenter(s):

Vaughn Nelson, P.E.

Statewide Design Engineer, Utah Department of Transportation

vanelson@utah.gov

Vaughn has been with UDOT for 10 years in design and construction. He is currently the Statewide Design Engineer. His primary responsibilities are managing and updating the roadway design standards and helping with whatever project teams need to deliver projects. He has been involved in the development and upcoming implementation of the Design Manual Drawings for Bikeways to meet current UDOT and AASHTO design requirements to accommodate all users with different abilities within the UDOT Right-of-Way.

Angelo Papastamos

Systems Planning and Programming, UDOT

apapastamos@utah.gov

Angelo works in UDOT's Program Development group in planning. He is involved with making sure roadway facilities provide access for all users and has been an integral part of making changes at the department ensuring a better future for the public's transportation needs.

Abstract:

Background

The most recent version of the AASHTO Green Book (2018) outlined context-based classifications introducing a new set of land-use context classifications (i.e., rural, rural town, suburban, urban, and urban core) that creates a change in guidance for state transportation officials. The need for the contexts comes from our changing environment and ensuring the transportation system accommodates all users to enhance mobility and accessibility and improve our overall quality of life. While necessary, this is a paradigm shift and may be challenging for many agencies.

Statement of Contribution

Breakout Session - Presenter Information

UDOT is beginning the process to develop context classifications for the State but this will take some time. In the meantime, we want to use our current design processes to make better choices to accommodate all roadway users on our projects and not wait until our context classifications are completed.

Exercises

This breakout will cover what context classifications are and how they help determine what facilities should be included on our roadways to accommodate the needs of all users. We will work through examples of when the context might influence roadway elements and/or require flexible design standards. We will also cover how to document those decisions using our deviation and design exception processes.

Outcome

Planners, Designers, Project Managers, and Asset Managers will gain an understanding of different roadway user needs based on the context of the roadway and know how to document decisions to meet those needs if/when deviating from our standards is required.

Breakout Session - Presenter Information

Session Day and Time**Assigned Room**

Wednesday
October 26
1:45 - 2:45 PM

Draped Hallway

Title: Stop the Bleed Training

Learning Objective(s):

Presenter(s):

EmmaJayne Daw, RN, CCRN
St. Mark's Hospital

Abstract:

A person can die from a bleeding emergency in as little as three minutes. Do you know what to do in a bleeding emergency? Join us for a full training! NOTE: this session is first come, first serve and capped at 20 participants.

Breakout Session 7 - Wednesday, October 26 | 3:45 - 4:45 PM

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	200A

Title: URS Tier 2

Learning Objective(s):

Presenter(s):

Vicky Steinbrech, CFP® is a Retirement Planning Advisor at Utah Retirement Systems. Vicky started working for Utah Retirement Systems in late 2019. Prior to starting with URS, Vicky worked as a controller of a small private company where her responsibilities included retirement planning. Prior to working in small business, Vicky worked for KeyBank for 18 years.

Abstract:

Come learn about Utah Retirement Systems Tier 2 retirement savings option.

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	200B

Title: Stormwater Infrastructure Waste Management**Learning Objective(s):**

- Demonstrate knowledge of the proper management of waste generated from stormwater infrastructure cleaning and maintenance.
- Demonstrate an understanding of the implications of existing and future sanitary sewer connections at UDOT maintenance sheds.

Presenter(s):

Rhonda Thiele

UDOT Stormwater Program Manager

rhondathiele@utah.gov

Rhonda has worked in the field of stormwater management for over 30 years. She has worked for the Salt Lake County Health Department in the areas of pollution prevention and illicit discharge detection and elimination (IDDE) and then became the MS4 program coordinator for the Department of Environmental Quality. She has served as UDOT's stormwater program manager for the last five and a half years, which provides a unique perspective after serving as UDOT's MS4 permit writer for nearly 10 years.

Stephanie McGinnis

Region 2 Stormwater Program Coordinator

samcginnis@utah.gov

Stephanie McGinnis joined UDOT as the stormwater coordinator for Region Two in March of 2022. In her role, she helps to ensure compliance with UDOT's Utah Pollutant Discharge Elimination System (UPDES) Municipal Separate Storm Sewer System (MS4) permit. She holds a M.S. in Biological Sciences from Montana State University.

Jared Barton

Region 4 Stormwater Program Coordinator

jaredbarton@utah.gov

Jared has been a Region Stormwater Program Coordinator since April 2017 where his primary focus has been UDOT MS4 permit compliance. Prior to Stormwater Program Coordinator, Jared has acted as a UDOT Project Manager, Environmental Team Leader and Landscape Architect. Experience outside of UDOT includes employment with a utility company, Forest Service, NRCS and city government. He received his bachelor's degree in Landscape Architecture from Utah State University.

Abstract:

UDOT proactively inspects and maintains stormwater infrastructure to prevent roadways from flooding and protect water quality. However, removing sediment, leaves, trash - and anything else that finds its way from the pavement to the storm drain system - also creates a unique problem. The debris that is removed is often in slurry form, a mixture of solid and liquid waste, and cannot be hauled directly to an approved waste facility because only dried out or solidified waste will be accepted. To prepare waste for disposal, UDOT recently built decant facilities at the South Valley Maintenance Station and Salt Lake East Maintenance Station and is in negotiations with Summit County to build a third at the Silver Summit Maintenance Station.

A decant facility can properly prepare waste for disposal by separating the slurry into solid and liquid waste. The slurry travels through a series of weep holes and vault-like areas where solid waste settles out and liquid waste is drawn off, or decanted. Each of UDOT's decant facilities is unique, with varying external partnerships, maintenance station staff duties, and sanitary sewer requirements.

Join us to learn about the process to approve, build, and maintain a decant facility. We will also discuss the differing requirements of sanitary sewer districts to discharge liquid waste from a decant facility and implications for future connections.

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	200B

Title: ORD Drainage: Beyond the Peak Flow

Learning Objective(s):

- Attendees will be informed of the advantages and potential disadvantages of using time dependent (hydrograph) methods in ORD.
- Attendees will learn the basic steps to set up hydrograph analysis in ORD and lessons learned.

Presenter(s):

Dave Hansen

Hydraulics Engineer, Horrocks Engineers

dave.hansen@horrocks.com

Dave recently joined Horrocks Engineers. He has over 16 years of experience working on transportation projects and specializes in drainage design. He worked on developing and updating UDOT's ORD drainage digital delivery workspace while working at UDOT and as a consultant.

Brady Christensen

Associate Engineer, Horrocks Engineers

BradyC@horrocks.com

Brady is an Associate Engineer with Horrocks. He has nine years of experience working primarily on large transportation projects focusing on drainage design. He has worked on over 30 UDOT projects including the US-89 Progressive Design-Build (PDB) and is currently working on 5600 South PDB.

Abstract:

The majority of UDOT roadway projects are designed using Bentley's OpenRoads Designer (ORD) software. ORD includes StormCAD, which uses the rational peak flow hydrology method. The rational method is often adequate for roadway drainage systems, but it is limited by watershed properties. On UDOT projects the rational method is limited to uniform watersheds less than 200 acres. Also, the rational method cannot be used to analyze stormwater detention facilities, which are common on UDOT projects.

Bentley's CivilStorm software can calculate hydrology and hydraulics through time (a.k.a. hydrograph routing) instead of only calculating the peak flow. CivilStorm is available as a stand-alone software and can also be integrated in ORD with the proper license. A common workflow is to perform the peak flow analysis using StormCAD in ORD and to use the stand-alone version of CivilStorm or another software to perform analysis for a large watershed or a stormwater storage facility.

Breakout Session - Presenter Information

The motivation of this presentation is to introduce the potential benefits, share lessons learned and tips, and allow for discussion for using CivilStorm in ORD. The objective of this presentation is to raise awareness of the capabilities, benefits, risks, and potential workflows of using CivilStorm integrated with ORD.

This topic is relevant to anyone that currently uses or is considering using ORD to design drainage systems. At the conclusion of the presentation, attendees will be able to evaluate the applicability of using CivilStorm in ORD for a project and how to set up for success when they use it.

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	200C

Title: Structures Emergency Plan**Learning Objective(s):**

- 1) Identify critical structure damage
- 2) Understand response procedures in case of a major structural emergency event

Presenter(s):

Clint McCleery works for UDOT Structures in our Bridge Management area. Clint McCleery has been with UDOT for 22 years. Clint has worked within structures approximately 16 years. Clint has been in a few different positions in structures he has worked in our bridge inspection area 10 of those years and 3 of them were spent as the bridge inspection supervisor. Clint has been in the role of Bridge Emergency and Maintenance coordinator for the last 6 years. Clint helps with all areas of our Structures Division working to overcome many of our bridge maintenance and emergency repairs statewide.

Jera Irick works in UDOT Structures in Bridge Management as the Inspection Manager. He graduated from the University of Wyoming in Civil Engineering. He started his career in the private sector in the construction and mining industries before starting at UDOT. At UDOT he has worked on 3D bridge design and currently is the Structures Inspection Manager, where he coordinates the in-service bridge inspections and the Bridge Asset Management database and software.

Abstract:

This session will go over structures emergency response plans. It will give an overview of emergency response roles, inspection types, typical damage levels and types, and documentation during emergency response.

Breakout Session - Presenter Information

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	200D

Title: Migration Tool and Other Cool DWR Stuff

Learning Objective(s):

Attendees will learn about efforts at the DWR and tools available for project planning

Presenter(s):

Presenter: Matt Howard

Title: Natural Resource Manager

Organization: UDOT

Email: matrhoward@utah.gov

Bio: Matt Howard is the Natural Resources Manager for UDOT who works to avoid and minimize impacts

to wildlife due to new and existing transportation projects. He has worked as a biologist for 16 years, 5 of which have been with UDOT.

Abstract:

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	300A-B

Title: Leading with Influence & Trust**Learning Objective(s):**

"Influencing" is one of the four main areas on the CliftonStrengths assessment. Have you ever noticed how many of our technical experts don't have natural strengths in "Influencing"? We have created an Influence Formula that attendees will follow in order to be strategic about leading with influence and trust. We also have 8 pillars of trust that have been proven by research to be skills that can be learned by leaders to improve trust in their relationships both with their internal teams and with their clients.

Presenter(s):

Sydne Jacques, Jacques & Associates

Sydne has comprehensive understanding of and extensive experience with public projects. Since 1994 she has provided public involvement, facilitated partnering meetings, and taught training seminars during the environmental, design, and construction phases for hundreds of public projects. Fun fact: Sydne loves a good scare.

Abstract:

Background: "Influencing" is one of the four main areas on the CliftonStrengths assessment. Have you ever noticed how many technical experts don't have natural strengths in "Influencing"?

Motivation: After walking through many UDOT offices and seeing the displays of team strengths and observing a noticeable lack of "Influence" strengths we decided that engineers like formulas so we have created an Influence Formula that attendees will follow in order to be strategic about leading with influence and trust.

Methods: We also have been certified by the Trust Edge Leadership Institute in Minneapolis to be able to teach the Trust Edge Leadership Course. It is based on 8 pillars of trust that have been proven by research to be skills that can be learned by leaders to improve trust in their relationships both with their internal teams and with their clients.

Results: The strength of this presentation is that it is research based and attendees will walk away with a handout and practical ideas that they can implement in order to become more influential and trusted leaders.

Conclusions: My favorite definition of a leader is "A leader is someone that establishes a clear vision, communicates that vision to their team and then removes the stumbling blocks so that the team can accomplish the vision." Many leaders in the transportation industry are selected to become leaders because they excel in technical skills but when they become a leader they often are not trained at how to become

Breakout Session - Presenter Information

stronger in their people skills. Without people skills and the ability to influence and build trust, leaders won't be able to help their team accomplish the great challenges that are facing our teams today.

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	300C-D

Title: Utah Healthy Place Index - Social Determinants of Health and Overall Wellbeing

Learning Objective(s):

Objective: attendees ask a question or questions on UDOT's role in using the UHPI and improving Community Well-Being

Presenter(s):

Angelo Papastamos: UDOT Planning - Transportation Planning Manager, apapastamos@utah.gov
 Angelo Papastamos works for UDOT, serving as one of UDOT's Transportation Planning Managers. He created, developed, and guides the UDOT-TravelWise Program. Angelo is focused on Moving People. He strives to incorporate UDOT's QoL framework into our transportation network across Utah for All Users, with particular attention to Health, Access, & Equity.

Sarah Hodson: Utah Department of Health and Human Services - Deputy Director, Office of Health Promotion and Prevention shodson@utah.gov
 Sarah Hodson serves as the Deputy Director of the Office of Health Promotion and Prevention at the DHHS. She currently oversees the Utah Healthy Places Index mapping project which is a tool to help community leaders understand how different neighborhoods experience the community conditions known to impact health.

Louis Alloro: Positive Psychologist, louis@louisalloro.com
 Louis was one of the first one hundred one hundred people in the world to earn a Masters in Applied Positive Psychology from University of Pennsylvania, and since 2008, he has trained and certified thousands of practitioners and workplaces in applied positive psychology and wellbeing science.

Abstract:

The Utah Department of Health and Human Services Office of Health Promotion and Prevention worked with a number of partners and stakeholders to create the Utah Healthy Places Index (Utah HPI) which launched in the fall of 2022. The HPI asks and answers the following question; what do education, income, housing, transportation, and access to services have in common?

Breakout Session - Presenter Information

There is a growing body of research on the national level showing there is a strong relationship between these previously thought of non-health factors and overall community/peoples health. Decisions on all of these factors have a significant impact on community and people's well-being. The HPI is a new data and policy tool to assist communities in exploring these local factors and others that predict life expectancy and comparing community conditions across the state.

This panel will present and discuss how individuals, communities, and agencies can use the Utah H PI to view data at a census tract level in order to gain a better understanding of the local conditions that drive health. We will also discuss how the HPI offers practical solutions for communities to improve community conditions. Using the H PI, communities and agencies will be empowered to do their own assessments and have data to support policy and program decisions and funding requests.

The panel will consist of health, well-being, and transportation-all user experts bringing forth a thorough understanding of the Utah H PI (the health and well-being of a community), with some specific focus on the transportation and access to services factors.

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	300A-B

Title: Why do we invest in a household travel survey?

Learning Objective(s):

Attendees will understand the importance of conducting a household travel survey and how it is used by the agencies.

Presenter(s):

Natalia Brown
Travel Demand Model Program Manager
Utah Department of Transportation
nataliabrown@utah.gov

Natalia Brown is the Travel Demand Model Program Manager at UDOT and has worked in the development and/or application of travel models in Utah for many years. She, along with partner agencies, is guiding the requirements and design of the new 2023 Household Travel Survey.

Chad Worthen
Interagency Travel Modeling Director
Wasatch Front Regional Council
cworthen@wfrc.org

Chad is the Interagency Travel Modeling Director at the Wasatch Front Regional Council. He helps guide, develop and maintain Utah's travel demand and land use models. Chad works with the state's transportation partners to coordinate and promote the improvement of the data, tools, processes, policies and skills needed to provide quality travel and land use forecasts and analyses.

Abstract:

Household Travel Surveys are key to understanding travel patterns and behaviors, but why is it so important for the state? Agencies, such as the department of transportation and metropolitan planning organizations use the data from this survey to understand who, how, when, and for what purpose people in different communities travel. One of the main applications of this data is to update the travel models in the state, a tool widely used to forecast future travel. The purpose of this presentation is to provide an overview of the process, present the key questions that agencies are interested to answer, show where we are in the process, and go over examples of how agencies can use this data.

UDOT and partner agencies develop and maintain travel demand models that represent communities in the state. Common applications of these models are Long Range Plans, corridor studies, transit studies, and

Breakout Session - Presenter Information

region-wide transportation studies. The household travel survey provides an important dataset to make modifications in these models to better represent communities and their travel patterns and choices. The state conducted the last household travel survey in 2012, and since then, new modes have emerged (rideshare, scooters, etc.), telework has become more common, and e-commerce has significantly increased, impacting how people shop. Surveying techniques used to reach a larger cross-section of the Utah population have also improved since 2012, making it easier for participants to engage. Having a new household travel survey will provide relevant data to better reflect current travel patterns in the tools used to make decisions about the future of transportation.

Session Day and Time	Assigned Room
Wednesday Oct 26 3:45 - 4:45	E1

Title: Incident Command System & UDOT

Learning Objective(s):

Participants will gain a working knowledge of the Incident Command System (ICS) which not only facilitates their work process, but is an important platform to collaborate with other first response and public safety agencies

Presenter(s):

Joaquín has been UDOT as the Chief Emergency Manager since June of 2014.

Prior to that, as a unit commander and a member of operations staff in the United States Army Reserves and the Utah National Guard, he worked in a wide range of operational environments ranging from communications, security, logistics, education, humanitarian assistance and other operations other than war. His main focus while working for the Department has been to foster working relationships with public safety stakeholder agencies such as local, state and federal emergency management, law enforcement, Fire, EMS, Public Works, Dispatch, regional and partner DOTs and the private sector.

Abstract:

When working with other first response agencies, it is important for partner and stakeholder groups to be able to speak a common language and have a similar understanding of procedures and techniques when responding to and recovering from an event, either planned or unplanned. The Incident Command System (ICS) from the National Incident Management System (NIMS) is a widely recognized and endorsed method of task organizing across the public safety spectrum. This class will review these basic skills using a scenario based subject to both teach and adapt to the participants needs. UDOT is a leader in many aspects of operations and maintenance, and this class will supply the knowledge to develop techniques, tactics and procedures (TTPs) which can improve our contribution to operations, not just the day to day, but to the extraordinary.

Breakout Session - Presenter Information

During any given on-the-road work environment, supervisors and workers plan, review and update instructions, per the MUTCD Chapter 6, in order to identify potential risks, emplace mitigations to those risks, brief the staff on these strategies and supervise and refine the process. This is all done with the intent of protecting workers, the traveling public and any potential motorist(s) who might be experiencing an out of the ordinary situation. UDOT employees enjoy the admiration and praise of the people of Utah for their expertise and professionalism during our normal day-to-day projects, and also for when situations go beyond the normal. Crashes, bad weather condition or unusual road issues create a very challenging environment

A situation may become one of complex duration or cause such as a hazardous material (HAZMAT) spill, a physical threat to the environment, or a situation involving multiple jurisdictions from city, county, tribal or state jurisdictions.

UDOT may be the lead agency for the situation, or may need to collaborate with state and federal agencies which may require a formalized Incident Action Plan (IAP).

If this is ever the case, it is crucial for UDOT employees to know and follow the particular steps needed to create a work organization, or an Incident Command structure which deals with the situation or incident and then coordinates with other agencies for the purposes of quick, safe and effective response and recovery activities.

In this workshop format, volunteers will be given a scenario for a given event and then will be selected at random from the audience in order to simulate the management of some type of on-the-road hazard. Included in the presentation will be a review of the new UDOT Emergency Operation Plan, presented in real-time using the app, which covers the basics of emergency management in that we, as workers, are in a cyclic period of contingency operations. We are always recovering from the last event, preparing for the next situation or responding to the current threat.

The use of Quick Response cards, developed by the Mineta Group, will help to facilitate the learning process and because they are take-home items, will encourage the participants to review their own in-house TTPs for field project work.

Participants will gain a working knowledge of the Incident Command System (ICS) which not only facilitates their work process, but is an important platform to collaborate with other first response and public safety agencies.

Breakout Session - Presenter Information

Session Day and Time

Wednesday
October 26
3:45 - 4:45 PM

Assigned Room

Draped Hallway

Title: Stop the Bleed Training

Learning Objective(s):

Presenter(s):

EmmaJayne Daw, RN, CCRN
St. Mark's Hospital

Abstract:

A person can die from a bleeding emergency in as little as three minutes. Do you know what to do in a bleeding emergency? Join us for a full training! NOTE: this session is first come, first serve and capped at 20 participants.