



2024 Northwest Transportation Conference

Meaningful Partnerships Produce Better Transportation Outcomes

| MONDAY, March 4, 2024 | | Registration, CH2M-HILL Alumni Center, 9:00 AM | | |
|--|-----------------------------|---|--|---------------------------------------|
| 9:00 to 10:00 | | Networking, Continental Breakfast and Check-In/Registration | | |
| 10:00 to 12:00 | | Opening Plenary Session: Welcome and Introductions-CH2M-HILL Alumni Center Ballroom Welcome from OSU, FHWA, and ODOT Keynote: Susan Handy, University of California-Davis Director, National Center for Sustainable Transportation “Shifting Gears: Toward a New Way of Thinking About Transportation” | | |
| | | Luncheon, 12:00 – 1:30 | | |
| 1:30 to 3:00 | Vendor Fair - Exhibits Open | Cascade Room A/B | Cascade Room C | Willamette Room |
| | | Session 1 A Planner's Guide to Climate-Friendly and Equitable Communities Implementation | Session 2 ITS-Sensors and Sensibility: Oregon’s Connected Vehicle Ecosystem | Session 3 Tolling in Oregon |
| Break, 3:00 – 3:30 | | | | |
| Session 4 Simulating Travel Behavior to Support Informed Decision Making | | Session 5 ITS-Traffic Management Systems: Tools, Trends and Data | | |
| 3:30 to 5:00 | | | | |

Open

TUESDAY, March 5, 2024

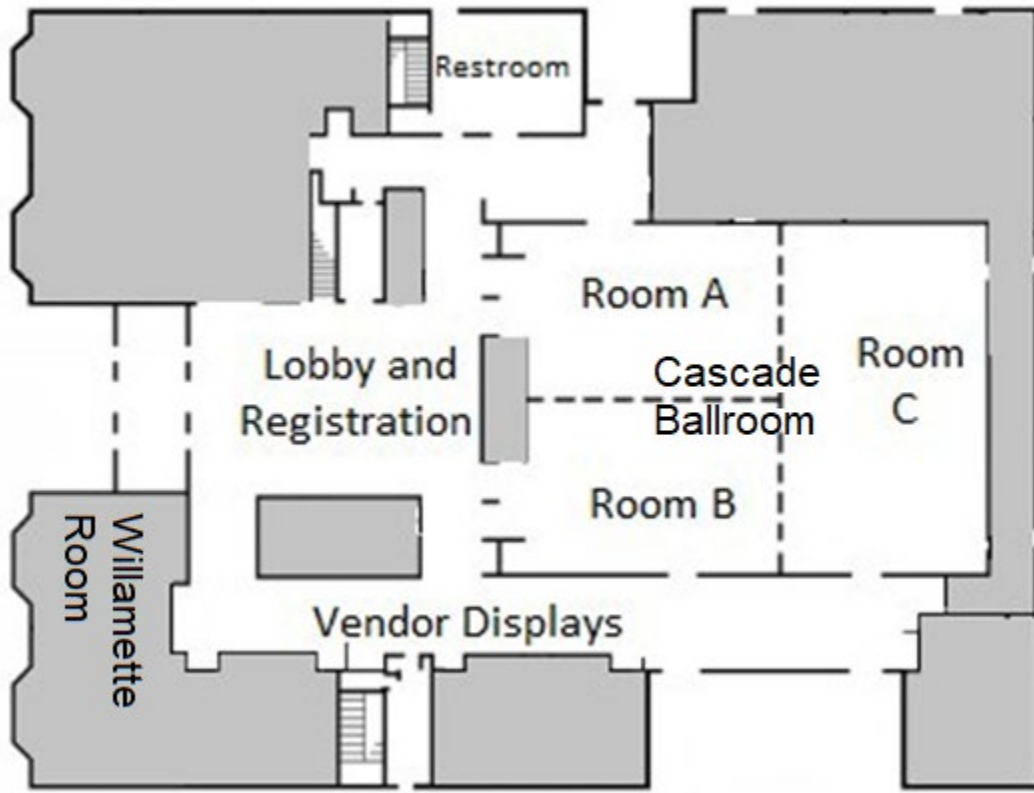
Registration, CH2M-HILL Alumni Center, 8:00 AM

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|----------------------|-----------------------------|--|---|---|
| 8:00 | Vendor Fair - Exhibits Open | Check-In/Registration and Full Breakfast (Breakfast starts at 7:30) | | |
| 8:30 to 10:00 | | Cascade Room A | Cascade Room B | Cascade Room C |
| | | Session 6 Bicycles | Session 7 Pavement | Session 8 ITS/CAV Applications to Enhance Safety and Mobility at Bridges, Rail Crossings and Freight Connectors |
| Break, 10:00 – 10:30 | | | | |
| 10:30 to 12:00 | | Session 9 Pedestrians | Session 10 Here Be Landslides! | Session 11 ITS-Cloud Based Transit Signal Priority (TSP) |
| | | Luncheon, 12:00 – 1:30 | | |
| 1:30 to 3:00 | | Session 12 Shared Mobility: Results to Guide Equity and Resilience | Session 13 Improved Curb-Ramp Slope Measurements | Session 14 Signals |
| | | Break, 3:00 – 3:30 | | |
| 3:30 to 5:00 | | Session 15 It's Electric! EV Best-Practices, Programs & Updates | Session 16 Transportation Feature Extraction from Mobile Lidar Data | Session 17 Transportation Data Solutions to Fit the Needs of Oregon's Future |

WEDNESDAY, March 6, 2024

Registration, CH2M-HILL Alumni Center, 8:00 AM

| | | | |
|----------------------|------------------------|---|---|
| 8:00 | Vendor Fair - Exhibits | Check-In/Registration and Full Breakfast (Breakfast starts at 7:30) | |
| 8:30 to 10:00 | | Cascade Room A/B | Cascade Room C |
| | | Session 18 New Advances for Load Rating Oregon Bridges | Session 19 System Improvement |
| Break, 10:00 – 10:30 | | | |
| 10:30 to 12:00 | | Session 20 Interstate Bridge Replacement Program Update | Session 21 Safety |
| End of Conference | | | |



CH2M HILL ALUMNI CENTER
OREGON STATE UNIVERSITY

725 SW 26th St,
Corvallis, OR 97331

Detailed Breakout Session Information

Monday, March 4, 1:30 PM - 3:00 PM

Session 1: A Planners Guide to Climate-Friendly and Equitable Communities Implementation

Conference Room: Cascade Ballroom A/B

Moderator: Michael Rock, ODOT

- a) CFEC-Updated Vehicle Miles Traveled (VMT) Analysis for Planners, Agency Staff and Consultants, Zachary Horowitz, ODOT
- b) Going Beyond the V/C Ratio: New Climate-Friendly Performance Standards and Measures Guidance, Theresa Conley, ODOT
- c) Focus on the E in CFEC: Equity, Evan Manvel, DLCD

Session 2: ITS-Sensors and Sensibility: Oregon's Connected Vehicle Ecosystem

Conference Room: Cascade Ballroom C

Moderator: Scott Turnoy, ODOT

- a) Connected Vehicle Ecosystem Project, ITS, Blaine VanDyke, ODOT
- b) Connected Vehicle Ecosystem Project, RUC, Maureen Bock, ODOT
- c) High Fidelity Connected Vehicle (CV) Probe Data – Driving Insights to Origin Destination Travel Patterns, Greg Jordan Univ. of Maryland

Session 3: Tolling in Oregon

Willamette Room

Moderator: Matthew Mabey, ODOT

- a) The Technology and Advance of Tolling, Maureen Bock, ODOT
- b) The Engineering of Tolling, Atousa Gorg, ODOT
- c) The Business of Tolling, Phil Miller, ODOT

Monday, March 4th, 3:30 PM - 5:00 PM

Session 4: Simulating Travel Behavior to Support Informed Decision Making

Conference Room: Cascade Ballroom A/B

Moderator: Chris Melson, ODOT

- a) Understanding Travel Behavior, the 2023-24 Oregon Travel Study, Becky Knudson, ODOT
- b) Oregon's Next Generation of Travel Planning Tools, Alex Bettinardi, ODOT
- c) Travel Demand Modeling Analysis to Support the Climate-Friendly and Equitable Communities Program, Zachary Horowitz, ODOT

Session 5: ITS-Traffic Management Systems: Tools, Trends and Data

Conference Room: Cascade Ballroom C

Moderator: Scott Turnoy, ODOT

- a) ATC -Non-Signals, Blaine VanDyke, ODOT
 - b) Trends in Traffic Management Systems, AJ Skillern, Southwest Research Institute
 - c) Identifying and Quantifying the Causes of Congestion for States and Counties Throughout the Northwest, Mark Franz, Univ. of Maryland
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Tuesday, March 5th, 8:30 AM - 10:00 AM

Session 6: Bicycles

Conference Room: Cascade Ballroom A

Moderator: Josh Roll, ODOT

- a) Safety and User Perceptions of Auxiliary Bike Lanes, David Hurwitz, Hisham Jashami, and Helena Breuer, OSU
- b) The Future of E-Bikes on Public Lands, Seth English-Young, FHWA
- c) Impacts of Intersection Treatments and Traffic Characteristics on Bicyclist Safety, David Hurwitz, OSU and Sirisha Kothuri, PSU

Session 7: Pavement

Conference Room: Cascade Ballroom B

Moderator: Cristhian Galvez, ODOT

- a) ODOT's Automated Pavement Condition Survey Practices, Rick Villarreal, ODOT
- b) Ground Penetrating Radar (GPR) - Tool to evaluate near-surface and subsurface conditions of transportation facilities, Shashwath Sreedhar, GRI, Inc.
- c) Benchmarking and Implementing Performance-Based Balanced Asphalt Mix Design in Oregon, Erdem Coleri, OSU

Session 8: ITS/CAV Applications to Enhance Safety and Mobility at Bridges, Rail Crossings and Freight Connectors

Conference Room: Cascade Ballroom C

Moderator: Nathaniel Price, FHWA

- a) Congestion Prediction Using Connected Vehicle Data and Machine Learning: The Chesapeake Bay Bridge Queue Detection and Prediction Web Application, Rick Ayers, Univ. of Maryland
- b) Using ITS at Rail Crossings to Reduce Collisions, Congestion, Emissions, and 911 Delays, Garreth Rempel, Trainfo
- c) Recent Developments in Freight ITS/CAV in the Western United States, Mark Jensen, Transpo Group

Tuesday, March 5th, 10:30 AM - 12:00 Noon

Session 9: Pedestrians

Conference Room: Cascade Ballroom A

Moderator: Sirisha Kothuri, PSU

- a) US 30: Columbia to 8th Street (Astoria) Road Reconfiguration, Christina LaFleur and Ken Shonkwiler, ODOT
- b) Measuring the Impact of Vehicle Design and Speed on Pedestrian Injury Severity in the Pacific Northwest, Josh Roll, ODOT
- c) Enhancing Non-Motorized Safety by Simulating Non-Motorized Exposure using a Transportation Planning Approach, Tanmoy Bhowmik, PSU

Session 10: Here Be Landslides!

Conference Room: Cascade Ballroom B

Moderator: Kira Glover-Cutter, ODOT

- a) Evaluating Precipitation- and Earthquake-Induced Landslide Impacts along ODOT Lifelines, Ben Leshchinsky, Michael Olsen and Nick Mathews, OSU
- b) US highway 101 coastal hazard vulnerability and risk assessment for mitigation prioritization, Michael Olsen, Steve Dundas, Jonathan Allan, Maria Krivova, Andrew Senogles, Ben Leshchinsky, Jaonie Hermmann, Ashley Low and Chris Parrish, OSU
- c) Detailed monitoring and characterization of landslide displacements, Michael Olsen, Andrew Senogles, and Ben Leshchinsky, OSU

Session 11: ITS-Cloud Based Transit Signal Priority (TSP)

Conference Room: Cascade Ballroom C

Moderator: Nathaniel Price, FHWA

- a) Overview of the Transit Project, A.J. O'Conner, TriMet
- b) Details of the Signal Controller Configurations, Mark Haines, City of Portland
- c) TriMet Transit Signal Priority, A.J. O'Connor, TriMet

Tuesday, March 5th, 1:30 PM - 3:00 PM

Session 12: Shared Mobility: Results to Guide Equity and Resilience

Conference Room: Cascade Ballroom A

Moderator: Nicole Ngo

- a) Equity of Micromobility, John MacArthur, PSU
- b) Buying One Trip at a Time: Lower-Income Households and Ride-hail Travel, Anne Brown, U of O
- c) ScooterLab: Initial findings from the San Antonio testbed, Greg Griffin, ODOT

Session 13: Improved Curb-Ramp Slope Measurements

Conference Room: Cascade Ballroom B

Moderator: Jon Lazarus, ODOT

- a) Error modeling in curb ramp slope measurements, Michael Olsen, OSU
- b) Virtual Curb Ramp assessment from lidar data, Ezra Che, OSU
- c) Evaluation of different lidar systems for curb ramp slope measurements, Caleb Ogbeta, OSU

Session 14: Signals

Conference Room: Cascade Ballroom C

Moderator: Chris Primm, ODOT

- a) Active Transportation Counts from Existing On-Street Signal and Detection Infrastructure, Sirisha Kothuri, PSU
- b) Assessing Traffic Detector Health with a Novel Technique, Edward Smaglik, NAU
- c) Signalized Performance Measures WITHOUT Hardware, Charles Lattimer, Univ. of Maryland

Tuesday, March 5th, 3:30 PM - 5:00 PM

Session 15: It's Electric! EV Best-Practices, Programs & Updates

Conference Room: Cascade Ball Room A

Moderator: Matt Bagwell, ODOT

- a) Updates from ODOT's EV Programs, Susan Peithman, ODOT
- b) Best Practices from Community EV Readiness Plans and Transit Agency Zero Emission Transition Plans, Jeff Owen, HDR
- c) EVs and Social Equity, Steffani Cuff, Forth

Session 16: Transportation Feature Extraction from Mobile Lidar Data

Conference Room: Cascade Ballroom B

Moderator: Rachel Arkoosh, ODOT

- a) Automated Data Processing Framework for Asset Extraction, Ezra Che, OSU
- b) Automated Inventory of Pedestrian Crosswalks, Bike Lanes, and Medians from Mobile Lidar Data, Michael Olsen, OSU
- c) Large-scale Road Characterization Leveraging Mobile Lidar Data, Sahar Kamalou, OSU

Session 17: Transportation Data Solutions to Fit the Needs of Oregon's Future

Conference Room: Cascade Ballroom C

Moderator: Becky Knudson, ODOT

- a) RITIS for Project Planning, System Monitoring and Incident Analysis, Chi Mai, ODOT
 - b) Speed-Flow Diagrams of Urban Freeways in Oregon, Shen Qu, ODOT
 - c) Evolving Traffic Volume Data through ITS, WIM, and Signal incorporation, Ali Jafarnejad, ODOT
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Wednesday, March 6, 8:30 AM - 10:00 AM

Session 18: New Advances for Load Rating Oregon Bridges

Conference Room: Cascade Ballroom A/B

Moderator: Matthew Mabey, ODOT

- a) Load Rating Concrete Bridges Without Plans using Image Fusion of Multiple NDE Methods, Bruce Johnson, Otak; Thomas Schumacher, PSU
- b) Truck Platoon Load Effects on Oregon Bridges, Thomas Schumacher, Avinash Unnikrishnan, Patricia Oleson, PSU; Michael Scott and Minjie Zhu, OSU
- c) Load Rating and Lateral Torsional Buckling in Simply Supported Steel Bridges, John Milcarek, ODOT

Session 19: System Improvement

Conference Room: Cascade Ballroom C

Moderator: Greg Griffin, ODOT

- a) Assessing the Community Impacts of Transportation Infrastructure Investments, Tanmoy Bhowmik, PSU
- b) Gridlock? What Gridlock?": Bypassing Traffic via Oregon's Bus on Shoulder Pilots, Sandra Hikari and Kerrie Franey, ODOT; Rory Renfro, HDR
- c) Prioritizing Climate Change Resilient Transportation Investments, Katherine Silva and Paris Edwards, ODOT

Wednesday, March 6, 10:30 AM - 12:00 Noon

Session 20: Interstate Bridge Replacement Program Update

Conference Room: Cascade Ballroom A/B

Moderator: Farahnaz Soleimani

- a) History of Interstate Bridge Replacement Efforts, Ray Mabey, ODOT/IBR
- b) Interstate Bridge Replacement Program Update, Greg Johnson, ODOT/IBR
- c) Embedding Equity in the Interstate Bridge Replacement Project, Johnell Bell, Espousal Strategies/IBR

Session 21: Safety

Conference Room: Cascade Ballroom C

Moderator: Nick Fortey, FHWA

- a) ODOT Intersection Safety Implementation Plan Update, Christina McDaniel-Wilson and Jiguang Zhao, ODOT; Julie Hanson, City of Salem, and Nick Foster, Kittelson & Associates
- b) Removing Residual Lane Markings to Reduce Driver Confusion, David Hurwitz, Hisham Jashami, and Jane Weber, OSU; Chris Monsere and Sirisha Kothuri, PSU
- c) ODOT's Work Zone Safety Strategy, Doug Curro, ODOT

**Thank you to our Speakers, Moderators,
Sponsors and Vendors for making this
conference possible.**