



FINAL PROGRAM

12th National Conference on Transportation Asset Management



July 14–17, 2018
Westin, San Diego
San Diego, CA

Organized by

Transportation Research Board

Cosponsored by

American Association of State Highway and
Transportation Officials (AASHTO)

<http://www.trb.org/conferences/AssetMgt2018.aspx>

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TRANSPORTATION RESEARCH BOARD

SCHEDULE AT A GLANCE

	Saturday, July 14	Sunday, July 15	Monday, July 16	Tuesday, July 17	
8:00 AM					
8:30 AM					
9:00 AM		FHWA/ AASHTO Part 2 Asset Mgt Peer Exchange	Opening Session	Breakouts	
9:30 AM					
10:00 AM		FTA Roundtable			
10:30 AM			Breakouts	Breakouts	
11:00 AM					
11:30 AM					
12:00 PM					
12:30 PM			Pooled Fund States	Luncheon	Luncheon with Separate Pooled Fund Lunch
1:00 PM					
1:30 PM					
2:00 PM	FHWA/AASHTO Part 1 Asset Mgt Peer Exchange			Breakouts	Breakouts
2:30 PM			Advance Workshops		
3:00 PM					
3:30 PM					
4:00 PM				Breakouts	Closing
4:30 PM					
5:00 PM					
5:30 PM				Planning Committee Debrief	
6:00 PM		Joint Meeting TRB Asset Mgt Cm & AASHTO Subcm	Posters & Reception		
6:30 PM					
7:00 PM					

Planning Committee

Laura Mester, Michigan Department of Transportation
 Brad Allen, Applied Pavement Technology, Inc.
 Niles Annelin, Michigan Department of Transportation
 Emily Burns, Seattle Department of Transportation
 Anita Bush, Nevada Department of Transportation
 E. Dean Carlson, Consultant
 Mildred Chua, Metropolitan Transportation Authority Bridges and Tunnels
 Paul Edwards, Utah Transit Authority
 Matthew Haubrich, Iowa Department of Transportation
 Michael Johnson, California Department of Transportation (Caltrans)
 John McCormick, Bay Area Rapid Transit District
 Sue McNeil, University of Delaware
 Scott Richrath, Atkins
 David Springstead, Metropolitan Atlanta Rapid Transit Authority
 Andrew Williams, Ohio Department of Transportation
 Laura Zale, Southeastern Pennsylvania Transportation Authority

Liaisons

Stephen Gaj, FHWA
 Matthew Hardy, AASHTO
 Heather Holsinger, FHWA
 Robert Kafalenos, FHWA
 Mshadoni Smith, FTA

TRB Staff

Thomas M. Palmerlee, TRB
 Mai Quynh Le, TRB

AICP and PDH Credits Available at the 2018 Asset Management Conference



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PLATINUM



GOLD



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WELCOME LETTER

With everything that is happening in the world of asset management, the 12th National Conference on Transportation Asset Management is an event you do not want to miss! The program includes a variety of topics, from introductory material that will satisfy practitioners who are just getting started to complex investment strategies that will challenge those who are ready to move beyond the basics.

The program also includes dedicated sessions that address transit asset management and improving resilience to climate change and extreme weather events—as well as integrated sessions that blend these topics with other presentations in the other tracks. Be sure to note all the other events in addition to the conference program that take place immediately before the conference itself. You will not want to miss the workshops, technical meetings, and other events that will be held during the week.

Whether you are a member of the pooled fund established by the Iowa Department of Transportation, or a practitioner from a federal, state, or local transportation agency; regional planning organization; transit agency; academia; or private industry, the conference provides a great opportunity to enhance your skills, learn what is being done in other organizations, and exchange ideas with your peers.



—**Laura Mester**

Chair, 2018 Asset Management Planning Committee
Chief Administrative Officer, Michigan Department of Transportation

COMMITTEE MEETINGS

Sunday, July 15, 2018

5:30 p.m.–7:00 p.m., *Crystal I Ballroom*

Joint Meeting: TRB Asset Management Committee and AASHTO Asset Management Subcommittee

Timothy Henkel, Minnesota DOT, *presiding*

Monday, July 16, 2018

7:00 a.m.–8:00 a.m., *Pearl Room*

TRB Joint Subcommittee Meeting: Transit State of Good Repair

William Robert, Spy Pond Partners, *presiding*

Noon–1:30 p.m.,

Strategic Management Committee, Pearl Room

Andrea d'Amato, Massachusetts DOT, *presiding*

Transit Management and Performance Committee, Diamond 2

Amy Van Doren, Marin Transit, *presiding*

Tuesday, July 17, 2018

7:00 a.m.–8:00 a.m.

Performance Management Committee, Pearl Room

Mara Campbell, CH2M, *presiding*

Educator's Breakfast, Ivory Room

Sue McNeil, University of Delaware, *presiding*

Noon–1:30 p.m., *Pearl Room*

Management and Leadership Section (Invitation Only)

Kathryn Zimmerman, Applied Pavement Technology, Inc., *presiding*



PRECONFERENCE ACTIVITIES

Saturday, July 14, 2018

1:30 p.m.–5:00 p.m., *Crystal I Ballroom*

FHWA/AASHTO Peer Exchange, Part 1 (Public Agency Staff Only)

Matt Hardy, AASHTO, *presiding*

The U.S. Federal Highway Administration (FHWA) and American Association of State Highway and Transportation Officials (AASHTO) will be hosting a Transportation Asset Management Peer Exchange to share noteworthy and current practices in asset management program improvements. Participants will be from state departments of transportation (DOTs), metropolitan planning organizations (MPOs), and transit agencies who will present their agency's asset management advancements and learn from each other. This is an "invitation-only" event for public agency participants.

Sunday, July 15, 2018

8:30 a.m.–5:00 p.m., *Topaz Room*

FTA Roundtable (Public Agency Staff Only)

Mshadoni Smith, Federal Transit Administration, *presiding*

The Federal Transit Administration (FTA) will hold the 2018 Transit Asset Management (TAM) Roundtable on Sunday, July 15, 2018, in conjunction with the TRB 12th National Conference on Transportation Asset Management. This highly interactive event will bring together participants from transit agencies, state DOTs, and MPOs from across the country who are involved directly in the management of transit capital assets, providing an opportunity for agency staff to learn from one another. In addition to discussing preparation for the first agency TAM plans due in October 2018, this year's Roundtable will include focus on using TAM strategically to drive organizational improvements, and successes and challenges in procurements for TAM-related services and systems.

8:30 a.m.–Noon, *Crystal I Ballroom*

FHWA/AASHTO Peer Exchange, Part 2 (Public Agency Staff Only)

Matt Hardy, AASHTO, *presiding*

7:00 p.m.–8:00 p.m., *Topaz Room*



Moderators and Recorders Briefing (Invitation Only)

Kathryn Zimmerman, Applied Pavement Technology, Inc., *presiding*

POOLED FUND ACTIVITIES



Sunday, July 15, 2018

Noon–1:30 p.m., *Diamond 2*

Pooled Fund Lunch (Invitation Only)

Matthew Haubrich, Iowa DOT, *presiding*

Tuesday, July 17, 2018

Noon–1:30 p.m., *Diamond 2*

Pooled Fund Lunch (Invitation Only)

Matthew Haubrich, Iowa DOT, *presiding*



PRE-CONFERENCE WORKSHOPS

Sunday, July 15, 2018

9:00 a.m.– 5:00 p.m., *Perm Reg Desk*

Registration

Open to All Registrants

Time	Workshop Title	Room
10:30 a.m.–Noon	Bridge Management Applications for Your TAMP	Crystal II Ballroom
1:30 p.m.–5:00 p.m.	Using New Tools and Processes to Enhance TAM	Diamond 1
	Asset Management 101	Opal Room
	What We Learned from the TAMP Development Process	Crystal II Ballroom
1:30 p.m.–3:00 p.m.	Use of Pavement Management Systems for Asset Management	Crystal I Ballroom
3:30 p.m.–5:00 p.m.	How to Use TAM Information to Grab the Attention of Executives	Crystal I Ballroom

Bridge Management Applications for Your Transportation Asset Management Plan

Steve Gaj, Federal Highway Administration, *presiding*

Bridge management systems are often well established in agencies. These existing management systems provide a lot of data to support asset management. Presenters will provide examples of how pavement and bridge management systems can be used to support asset management.

Bridge Management, Achieving Asset Management Targets

Paul D. Thompson, Paul D. Thompson Consulting

Indiana's Bridge Management System, Achieving TAMP Targets

Louis Feagan, Indiana DOT

The Michigan Bridge Management Story

Dave Juntunen, Michigan DOT

NJDOT Bridge Management System Challenges for TAMP

Harjit S. Bal, New Jersey DOT

Using New Tools and Processes to Enhance TAM (AICPCredits)

Andrew Lemer, TRB, *presiding*

Recently completed and ongoing National Highway Cooperative Research Program (NCHRP) projects provide concepts, methods, and tools for asset management process improvement. This workshop provides an overview of research products in three areas:

- Data management for managing asset-system performance
- Enlightened TAM practices and their payoffs
- Knowledge as an asset that enhances physical asset value and system performance

Overview

Andrew Lemer, TRB

Guidance on Leading Practices

William Robert, Spy Pond Partners

Data for CIM, TAM, and TPM

Frances Harrison, Spy Pond Partners

Advancing DOT Data Management Practices

Ian Kidner, Ohio DOT

Metrics, Benchmarking, and Target Setting

Joseph Crossett, High Street Consulting

Resource Allocations

William Robert, Spy Pond Partners

Communication and Diagnostics with Portals and Dashboards

Huyn-A Park, Spy Pond Partners

Sunday, July 15, 2018



Asset Management 101 (AICPCredits)

Sue McNeil, University of Delaware, *presiding*

This workshop will provide a foundation for practitioners including understanding what transportation asset management (TAM) is and what TAM means for their organization. A state Department of Transportation, a transit agency, and a multimodal organization will present their experiences. Topics covered include resources and tools available to support asset management; and the practical steps to follow for implementation.

Part 1: Asset Management Overview: Concepts, Challenges, Needs, Processes, and Tools

Carlos Chang, University of Texas El Paso

Part II: Asset Management Practices

Margot Yapp, Nichols Consulting Engineers

Panel Discussion

Theresa Rommel, MTC

John McCormick, Bay Area Rapid Transit District

Terry Martin, Emily Burns, City of Seattle

Anita Bush, Nevada Department of Transportation

What We Learned from the TAMP Development Process

Michael Johnson, Caltrans, *presiding*

State highway agencies in the United States will have submitted their initial TAMP's to their FHWA Division offices by April 30, 2018. This workshop will feature presentations and discussions from agencies related to successes, challenges, and lessons learned from the development of their initial TAMPs. Presentations may also cover how state DOTs intend to apply these lessons to preparation of their final TAMPs, due July 30, 2019.

- Life Cycle Planning, Risk Management, and Financial Plans: Initial TAMPs are not required to include life cycle planning analyses, risk analyses or completed financial plans. It is expected that some states will include some or all of these components in their initial TAMPs, and others will not. This session will allow agencies to share how they have accomplished these items and discuss challenges they are facing to complete these items for their final TAMP.
- Addressing Resilience Concerns in TAMP Development: TAMPs are required to address resilience in life cycle planning and assessment of risks; TAMPs are also required to include an assessment of alternative strategies to address highway and bridge assets that have been repeatedly damaged during emergency events. This assessment, required under Section 667, will require states to research emergency response records, analyze identified assets, and incorporate the alternative strategies as part of their TAMP investment strategy.

Welcome Session

Michael Johnson, Caltrans; Tim Henkel, Minnesota DOT

Panel 1: Financial Plans

Hyun-A Park, Spy Pond Partners

Panel 2: Life Cycle Planning

Brad Allen, Applied Pavement Technology; Trisha Stefanski, Minnesota DOT

Andrew Williams, Ohio DOT; Dawn Foster, Caltrans

Panel 3: Risk Management

Gordon Proctor, Proctor Associates

Panel 4: Successes and Challenges

Michael Johnson, Caltrans

3:00 p.m.–3:30 p.m., *Ballroom Foyer*

Break

Sunday, July 15, 2018



Use of Pavement Management Systems for Asset Management

Butch Wlaschin, Consultant, *presiding*

Pavement management systems are often well established in agencies. These existing management systems provide a lot of data to support asset management. Presenters will provide examples of how pavement management systems can be used to support asset management.

Optimizing Pavement Treatments to Achieve TAMP Targets

Alan Kercher, The Kercher Group

The Ohio Story: Integrating Pavement Management to Achieve TAMP Targets

Andrew Williams, Ohio DOT

Getting the Most Out of Pavement Management in New Mexico

Tammy Haas, New Mexico DOT

New York Moving Ahead with Pavement Management

Steve Wilcox, New York DOT

How to Use TAM Information to Grab the Attention of Executives

Mara Campbell, CH2MHILL, *presiding*

This workshop will focus on how to take data output from asset management analysis and turn it into a useful decision-making tool for leadership, governing bodies, and the public. The workshop will showcase approaches that work as well as approaches that don't. The panel will provide examples and helpful "how-tos" as well as "how NOT tos." The goal of the interactive session is to illustrate best practices for turning asset management data into decisions.

Panel Discussion

William Johnson, Colorado DOT







































Julie Lorenz, Burns and McDonnell

Paul Degges, Tennessee DOT



CONFERENCE SESSIONS

SESSIONS SUMMARY

Monday Sessions					
Time/Room	Crystal I Ballroom	Crystal II Ballroom	Diamond 1	Opal Room	Topaz Room
10:30 AM	Data: Data Collection to Support TAM Decisions 	Implementation: Performance Management 	Investments: Rapid Fire Session: Investment Tradeoffs 	Org/Workforce: Advancing Asset Management Research and Education Using Case Studies 	TAMPs: State DOT TAMP Development 
1:30 PM	Data: The Business of Business Intelligence in TAM 	Implementation: Discussion: Our Initial TAMP is Done – What Now? (TAMP & Implementation) 	Investments: Connecting Research to Application 	Org/Workforce: One Size DOES NOT Fit All (Organizational Setup - DOT) 	TAMPs: Transit Agency TAMP Challenges and Opportunities 
3:30 PM	Data: Data Visualization to Communicate TAM Results 	Implementation: Incorporating Risk in Asset Management Practice 	Investments: Round Robin—Tools that Drive Asset Investment Decision Making 	Org/Workforce: Tools for Communicating with Transit Executives 	TAMPs: Discussion: Are All Our Plans and Targets Aligned? (TAMP) 
Tuesday Sessions					
Time/Room	Crystal I Ballroom	Crystal II Ballroom	Diamond 1	Opal Room	Topaz Room
8:30 AM	TAMPs: Risk and Resilience in the TAMPs 	Implementation: Making Asset Management Decisions 	Investments: Investment Resources for Asset Managers 	Org/Workforce: Discussion: Getting Started Implementing Your Plan to Make Asset Management Work 	TAMPs: Group Transit Asset Management Plan Development 
10:30 AM	Data: Discussion: The Data Governance Road Less Traveled – What Did Your Agency Learn Along the Way? 	Implementation: Cross Asset Prioritization 	Investments: Closing Session - Panel on Optimizing Investments 	Org/Workforce: Asset Management within Transit Organizations 	TAMPs: Coordinating Your TAMPs: Addressing Assets You Don't Own and Local Agencies You Don't Own 
1:30 PM	Data: "Is the Sky Really Falling" Communicating TAM Results 	Implementation : Building and Inventory and Assessing Condition 	Investments: Discussion: Bridging the Gaps Between Research and Implementation 	Org/Workforce: Communicating Asset Management 	TAMPs: Advancing Practices in Strategic TAMP Development 
	<i>Data Track</i>		<i>Organization/Workforce Track</i>		<i>Resilience</i>
	<i>Implementation Track</i>		<i>TAMP Track</i>		<i>Communication/Discussion</i>
	<i>Investment Track</i>		<i>Transit</i>		

Sunday, July 15, 2018



Monday, July 16, 2018

7:30 a.m.– 5:00 p.m., *Perm Reg Desk*
Registration

7:30 a.m.– 8:30 a.m., *Ballroom Foyer*
Continental Breakfast

8:30 a.m.–10:00 a.m., *Emerald Ballroom*

Opening Session: Asset Management Challenges for Today's Transportation Community

Laura Mester, Michigan DOT and Conference Chair, *presiding*

An interactive panel will address the following themes:

- The role of the federal government to provide stewardship to transportation agencies,
- The demand for increased government accountability,
- The evolution of agency investment priorities to better meet economic and societal demands,
- The need for stronger collaboration across modes and jurisdictions, and
- The growing importance of climate change and extreme weather events in agency decisions

Keynote Speakers:

Laurie Berman, Director, Caltrans

Gregory Kildare, Chief Risk Safety and Asset Management Officer, LA County MTA (Metro)

Kenneth N. Petty, II, Director, Office of Planning, FHWA

10:00 a.m.–10:30 a.m., *Ballroom Foyer*
Break

10:30 a.m.–Noon
Breakout Sessions

Data Collection To Support TAM Decisions   **(AICPCredits)**, *Crystal I Ballroom*

John Puento, Ohio DOT, *presiding*

Guanying Lei, FTA, *recording*

This session will center on advances in data collection used to support TAM, more specifically the data needed to support decision making. How, When, and What to collect will be explored. Presentations include: why the data was collected, collection methods, best practices, how it will be used, and how the data will be maintained.

Management And Practical Uses Of Transit Condition Data

Rick Laver, Dan Bisers, CH2M

Selecting Data to Best Support Asset Investment Decisions

Prashant Ram, Brad Allen, Katie Zimmerman, Applied Pavement Technology

Data Governance for Asset Management and Safety: An Integrated Approach at the Connecticut Department of Transportation

Frances Harrison, Spy Pond Partners, LLC; Karen Riemer, Connecticut DOT

Implementing Performance Management  **, Crystal II Ballroom**

Michael Johnson, Caltrans, *presiding*

Heather Holsinger, FHWA, *recording*

This session will facilitate the implementation of asset management; ensure executive and legislative support, foster inter-agency collaboration: DOT's, MPO's, RTPA's, local owners/transit owners, and facilitation of change management, communication and training.

Implementing a Performance-Based Asset Management Approach in California

Michael Johnson, Hamid Sadraie, Caltrans

Monday, July 16, 2018



Shopping For Assets

Richard Estrada, Caltrans

TAM Governance Journey at Iowa DOT

John Selmer, Iowa DOT

Rapid Fire Session: Investment Tradeoffs (AICPCredits), Diamond 1

Scott Richrath, Atkins, *presiding*

Michelle Stracener, Atkins, *recording*

This opening session for the track on Analyzing and Optimizing Investments will feature a series of short demonstrations and presentations designed to stimulate discussion and thought exchange throughout the conference. Presenters will demonstrate how agencies align resources and select projects that align with organization priorities. We encourage attendees to engage with presenters over the lunch that follows and throughout the two days.

Thinking Ahead: A Forward-Looking Approach Cross-Asset Trade-Off

Prashant Ram, Katie Zimmerman, Brad Allen, Applied Pavement Technology; Paul Thompson, Omar Smadi, Iowa State University

Cross-Asset Optimization System For Long-Range Investment Planning Of Highway Infrastructure Assets

Mahmoud Halfway, Infrastructure Data Solutions, Inc. (IDS)

An Optimization Model to Determine Critical Budgets for Managing Pavement and Safety

Promotes Saha, Khaled Ksaibati, University of Wyoming; Timothy McDowell, Wyoming DOT

Cross-Asset Network-Level Investment Trade-off Analysis Tool

Eddie Chou, University of Toledo; Andrew Williams, Ohio DOT

Value-Based Cross Asset Management for Transportation Assets

Zaid Alyami, Susan Tighe, University of Waterloo

Increasing Your Value through Prioritization and Project Selection that Yields Performance

Mara Campbell, Dan Pitzler, CH2M

Seattle Department of Transportation: Aligning Performance Results with Our Mission, Vision, and Goals

Terry Martin, Seattle DOT

How to Model Dedicated Funding Streams and Asset Eligibility Requirements in FTA's TERM Lite Tool

Nicholas Richter, WSP

Utilization of Strategic Asset Management to Assist in the Allocation of Resources Across Multiple Transportation Asset Classes

Josh Johnson, Russell Page, Bentley Systems

Integrating Risk Tolerance and Lifecycle Cost Analysis into the Development of TAM Investment Strategies

Richard Boadi, Jonathan Groeger, Amec Foster Wheeler

Advancing Asset Management Research and Education Using Case Studies , Opal Room

Anita Bush, Nevada DOT, *presiding*

Martin Kidner, Wyoming DOT, *recording*

This session will showcase how educators and practitioners are advancing research and education by using case studies which utilize research outcomes to better manage diverse assets. The case studies will highlight the importance of communication and the role of applied research in practice.

Advancing Asset Management Research and Education Using Case Studies

Gerardo Flintsch, Virginia Tech; Susan Tighe, University of Waterloo

The Role of Case Studies in the Classroom and Academic Research

Milos Posavljak, University of Waterloo, City of Waterloo

Advanced Infrastructure Management Bootcamp Project Experiences

Sue McNeil, University of Delaware

From Classroom to Practice

James Bryce, Amec Foster Wheeler



State DOT TAMP Development  (AICPCredits), Topaz Room

Omar Smadi, Iowa State University, *presiding*
Matthew Hardy, AASHTO, *recording*

In this session we will hear from several states about their experiences developing their initial TAMPs. We will also hear a summary of data collected through the AASHTO Subcommittee on Asset Management about the use of consultants in support of TAMP development. This session will be structured to allow plenty of time for questions and discussion among the session participants.

From Paper to Practice: Putting Risk-Based Asset Management to Work

Anne-Marie McDonnell, Karen Riemer, Connecticut DOT

Minnesota: Land of 10,000+ Assets

Shannon Foss, Minnesota DOT

Visualizing Asset Management in New Mexico

Tamara Haas, New Mexico DOT, Hyun-A Park, Spy Pond Partners, LLC

Vermont's Transportation Asset Management Plan

Chad Allen, Vermont Agency for Transportation

State DOT Use of Consultant Support to Develop Initial TAMPs

Matt Hardy, AASHTO; Matthew Haubrich, Iowa DOT

Noon–1:30 p.m., *Emerald Ballroom*

Lunch

1:30 p.m.–3:00 p.m.

Breakout Sessions (cont.)

The Business of Business Intelligence in TAM  , *Crystal I Ballroom*

Ian Kidner, Ohio DOT, *presiding*
Ursula Wright , FTA, *recording*

This session will highlight some best practices of utilizing management systems to analyze data for decision making purposes. The session will feature presentations and discussions focused on Business Intelligence and the advancement of “Big Data” and how it can support agencies’ decision making efforts.

The I-70 Risk and Resiliency Pilot: Proactive Management of Threats, Optimizing Investments for Improved Resiliency of Colorado Highways

Toby Manthey, Colorado DOT; Aimee Flannery, Michael Krimmer, AEM Corp

Utilization of AASHTOWare BrM to Meet Agency Policies and Objectives for Bridge Management

Joshua Johnson, Bentley Systems; Harjit Bal, New Jersey DOT

Filling The Tank: How Better Asset Information Fuels Better Asset Management

Simon Smith, AMCL

Discussion: Our Initial TAMP is Done – What Now?   , *Crystal II Ballroom*

Heather Holsinger, FHWA, *presiding*
Ister Morales, Gannett Fleming Inc., *recording*

Now that the initial TAMPs have been submitted, it's a good time to assess any feedback received and plan for the analyses required in the fully-compliant submittal. During this discussion session, state DOT practitioners and other participants will have the opportunity to share their experiences with developing their initial TAMPs and their plans for what's next on the TAMP horizon.

Monday, July 16, 2018



Connecting Research to Application , Diamond 1

Rob Kafalenos, FHWA, *presiding*
Scott Gordon, DTS/Atkins, *recording*

How does the research we conduct influence the ways owners of transportation infrastructure make decisions? This panel will discuss different ways that asset management research can be applied to help support the right investment decisions. The session will set the stage for a Discussion Group on Day 2 centered on “Bridging the Gaps Between Research and Implementation.”

Highway Corridors Of The Future: What Every Asset Manager Needs To Know

Gareth McKay, Thomas Goodyer, WSP

Influence Of Cost And Deterioration Uncertainties On Maintenance, Rehabilitation, and Reconstruction Allocation Decisions In Pavement Management Systems

Fengdi Guo, Omar Swei, Massachusetts Institute of Technology

Maximizing Investment Efficiency In Municipal Pavement Preservation Programs

Roozbeh Rashedi, Infrastructure Solutions Inc.; Michael Maher, Golder Associates Ltd.

A Plan for Every Section of Every Road of Every Island

Goro Sulijoadikusumo, Hawaii Department of Transportation; Stan Burns, Integrated Inventory, LLC

One Size Does Not Fit All (Organizational Setup - DOT) , Opal Room

Ehsan N. Minaie, CDM Smith, *presiding*
Mylinh Lidder, Nevada DOT, *recording*

This session will showcase several approaches to transitioning individuals, teams, and organizations redirecting the use of resources, business process, budget allocations, or other modes of operation that significantly reshape a company or organization.

Organizational Aspects of a Successful Transportation Asset Management (TAM) Program

Larry Redd, Redd Engineering; Brian ten Siethoff, Cambridge Systematics

Colorado Department of Transportation's Change Management Program

Michelle Malloy, Gary Vansuch, Colorado DOT

Developing Asset Management Organizational Capability using a Maturity Approach

Richard Edwards, AMCL

Transit Agency TAMP Challenges/Opportunities , Topaz Room

Laura Zale, SEPTA, *presiding*
Tina Ignat, METRA, *recording*

Since the FTA Transit Asset Management Final Rule was released in 2016, transit operators have been challenged to align their TAM practices to the requirements. Many agencies are developing their initial asset management plans, which are due in October 2018. In this session, the FTA will give an overview of the TAM requirements. Two transit operators will share lessons learned through the process of developing TAMPs and incorporating asset management into business practices. Finally, we will discuss how agencies can assess alignment with international TAM standards.

Transit Asset Management: The FTA Perspective

John Giorgis, Federal Transit Administration

Integrating Fixed Assets Accounting and Asset Inventories in a True Enterprise Approach to Asset Hierarchy

Matthew Wilson, Jacksonville Transportation Authority; David Rose, Gannett Fleming

Maximizing Asset Return on Investment For Self and Clients in a Public-Sector Setting

Ajay Singh, Jeff Arbuckle, King County Metro Transit

ISO 55 000 Asset Management State of Readiness Assessment Case Studies

David Hein, Jason Bittner, Applied Research Associates, Inc.

Monday, July 16, 2018




3:00 p.m.–3:30 p.m., *Ballroom Foyer*

Break

3:30 p.m.–5:00 p.m.

Breakout Sessions (cont.)

Data Visualization to Communicate TAM Results  (AICPCredits), *Crystal I Ballroom* Frances Harrison, Spy Pond Partners, LLC, *presiding*
Colleen Fegley, Seattle DOT, *recording*

The final component involves a hands-on demo using visualization software to tell a bridge asset condition story. It is recommended participants bring a laptop and pre-download the instructions and resources here. <https://snudot.data.socrata.com/dataset/SDOT-Bridges/f7ig-feg7>

System of Engagement (Strategic Data Integration)

Steve Wilcox, NYSDOT; Stan Burns, Integrated Inventory, LLC

Tostada – It’s Not Just For Dinner Anymore, It’s More, It’s Data Integration

David Schrank, Texas A&M Transportation Institute; Subrat Mahapatra, Maryland State Highway Administration

Panel

William Johnson, Colorado DOT; **Anne-Marie McDonnell, Connecticut DOT**

Demonstration

Mathias Burton, Socrata

Incorporating Risk in Asset Management Practice  , *Crystal II Ballroom*

Niles Annelin, Michigan DOT, *presiding*

Will Duke, Spy Pond Partners, *recording*

This session focuses on aligning planning to asset management, focusing on asset performance outcomes, project prioritization methodologies, and asset management framework.

Asset Management for Rock Slopes in Montana

Darren Beckstrand, Aine Mines, Landslide Technology; Jeff Jackson, Scott Helm, Bret Boundy, MDT; Paul Thompson, Consultant

Geotechnical Asset Management Implementation Planning For Transportation Agencies

Mark Vessely, BGC Engineering Inc.;

Practical Steps to Manage Climate Risk through Asset Management

Beth Rodehorst, Cassandra Bhat, Tommy Hendrickson, Amanda Vargo, ICF

Round Robin–Tools that Drive Asset Investment Decision Making   , *Diamond 1*
(AICPCredits)

Ted Hull Ryde, Atkins, *presiding*

Goro Sulijoadikusumo, Hawaii DOT, *recording*

From simple spreadsheets to sophisticated software, the business of managing transportation investment requires in depth analysis of data and often the quantification of qualitative observations. Using a round robin format, attendees will circulate in groups among the following topic “hosts” to engage with each of the presenters in a setting aimed to encourage discussion and feedback.

Integrating Extreme Weather Risk into Asset Management at the U.S. FWS

Cassandra Bhat, Susan Asam, Hannah Wagner, ICF

Driving Bridge Infrastructure Investment Decision Using Stochastic Condition Deterioration Models

Mohammad Sayar, Abhishek Bhargava, AgileAssets

Using Adaptive Management to Increase Resilience

Brenda Dix, Beth Rodehorst, Cassandra Bhat, ICF

Integrating Risk Assessment into the Decision-Making Process within Asset Management Systems

Jose Menendez, Nima Kargah-Ostadi, Jerome Daleiden, James Sassin, Fugro USA Land, Inc

Practical Uses of Risk-Based Prioritization for Transit State of Good Repair Investments

Emily Grenzke, Kimley-Horn

Spreadsheet Tools for Analysis of Transit Asset Investment Needs and Quality of Service Impacts

William Robert, Spy Pond Partners

Monday, July 16, 2018



Considering Socioeconomic and Environmental Criteria on Paved Road Network Investments: The Case of Costa Rica's National Road Network

José David Rodríguez-Morera, Rodrigo Arias-García, University of Costa Rica

Transit Executive Communication , Opal Room

Mshadoni Smith, FTA, *presiding*

Laura Zale, SEPTA, *recording*

This session will focus on pilot materials that FTA has developed to support transit professionals in communicating the value of Transit Asset Management (TAM) to executives. The presentation materials serve as a template that TAM professionals can edit to incorporate agency-specific information, and cover topics such as key benefits of implementing TAM, an overview of the federal rule and TAM requirements, and a vision for a mature TAM program. This focus group-like session will include a presentation of the materials followed by a group discussion regarding agency experiences with gaining executive support for TAM, as well as feedback on the presentation materials.

Discussion: Are All Our Plans and Targets Aligned? (AICPCredits), Topaz Room

Mara Campbell, CH2M, *presiding*

Karen Miller, Missouri DOT, *recording*

Requirements for developing a TAMP and target setting require a “collaborative and coordinated effort” to collect the data needed for performance and asset management from other NHS owners. This discussion group will explore the processes that state, regional, and local agencies have established to collect and report performance data, as well as their approaches to target setting.

5:00 p.m.–6:30 p.m., *Emerald Ballroom*

Poster Session and Reception

Data Systems to Improve Decisions

Prioritizing Maintenance Activities Using an Analytic Hierarchy Process (AHP)

Teresa M Adams, Javier Luis Vidal Carreras, University of Wisconsin - Madison

Developing and Integrating Customized Decision Trees for Local Agency's Pavement Management Systems

DingXin Cheng, California State University, SuiTan, Metropolitan Transportation Commission

MnDOT's Innovative Approach to Earth Retaining System Inventory, Inspection and Management

Barritt Lovelace, Collins Engineers; Stefanski Trisha, Minnesota Department of Transportation

Pavement Asset Management Software (PAMS) Implementation

Ilisel Espinal, John Helwig, GHD; Pamela Worley, Pennsylvania Turnpike Commission

Analyzing and Optimizing Investment Options

Keep Fixing the Station Wagon, or Splurge on a Flashy New Sedan? Transportation Management System Device Replacement Cost Analysis: A San Francisco Bay Area Case Study

Kaki Cheung, Metropolitan Transportation Commission; Kwasi Akwabi-Ameyaw, Kimley Horn Associates; Joseph Arroyo, Sean Eagen

Linking River Port Organizational Goals with Asset Management Execution

Elizabeth Collins Burkhart, Collins Engineers, Inc.; Greg Pritchett, Henderson County Riverport Authority

Rural County Pavement Preservation Planning

Craig Vaughn, SRF Consulting Group, Inc.

Monday, July 16, 2018



Tuesday, July 17, 2018

7:30 a.m.– 4:00 p.m., *Perm Reg Desk*
Registration

7:30 a.m.– 8:30 a.m., *Ballroom Foyer*
Continental Breakfast

8:30 a.m.–10:00 a.m.
Breakout Sessions (cont.)

Risk and Resilience in the TAMPs   **(AICPCredits)**, *Crystal I Ballroom*
Scott Zainhofsky, North Dakota DOT, *presiding*
Martin Kidner, Wyoming DOT, *recording*

Asset risk assessments are a requirement for Transportation Asset Management Plans. A part of these risk assessments revolve around accounting for system resiliency. These presentation focus on various aspects of resiliency in TAMPs.

Strategies for Improving the Resiliency of Transportation Assets

Prashant Ram, Brad Allen, Katie Zimmerman, Applied Pavement Technology

FHWA Approaches for Addressing Extreme Weather Resilience in Asset Management

Robert Kafalenos, Stephen Gaj, FHWA

Using Resilience in Risk-Based Asset Management Plans

YuanChi Liu, Sue McNeil, University of Delaware

Arizona DOT TAM Risk Management–Extreme Weather: Blending Risk, Science, Technology, Engineering

Steven Olmsted, Arizona DOT; Alan O'Connor, Trinity College in Dublin Ireland; Constantine Samaras, Carnegie Mellon University

Making Asset Management Decisions  **(AICPCredits)**, *Crystal II Ballroom*
Brad Allen, Applied Pavement Technology, Inc., *presiding*
Ister Morales, Gannett Fleming Inc., *recording*

This session includes Asset management software solutions, information management (BIM: Better Information Management, CIM: Civil Integrated Management), and cross-asset data structures for asset management.

Integrating Network-Level Lifecycle Cost Analysis Into Transportation Asset Management While Addressing Variability And Uncertainty

Richard Boadi, Jonathan Groeger, James Bryce, Amec Foster Wheeler

Using Technology to Better Communicate the Benefits of Project and Program Level Investments


Shourya Shukla, Donna Huey, Atkins

Waterloo Asset Management System Implementation

Milos Posavljak, Susan Tighe, Cassandra Pacey, University of Waterloo, City of Waterloo

Planning for Success–Best Practices in Selecting Actionable Asset Management Performance Goals

Don Hillis, Parsons

Investment Resources for Asset Managers  **(AICPCredits)**, *Diamond 1*
Tom Wesp, Atkins, *presiding*
Paul Edwards, Utah Transit Authority, *recording*

Much like an individual investor planning for retirement, the owner of transportation infrastructure draws from an assortment of resources to determine the right projects, treatment selections, and program funding levels. These presenters will provide ideas to help guide your investment decisions.

Determining the Value of Information in Asset Management Decisions

David Luhr, Jianhua Li, Washington State DOT

A Practical Framework for Managing All Transportation Assets

Shobna Varma, Starlsis, Corp; Gordon Proctor, Gordon Proctor & Associates, Inc.

Iowa DOT Project Scoping and Prioritization Process

Matthew Haubrich, Brad Hofer, Iowa Department of Transportation

Tuesday, July 16-17, 2018



Discussion: Getting Started Implementing Your Plan to Make Asset Management Work



William Johnson, Colorado DOT, *presiding*
Anita Bush, Nevada DOT, *recording*

This discussion session focuses on getting the most of your agency's asset management efforts by providing an opportunity to share organizational and workforce changes that led to an improved asset management culture. Suggestions for making asset management work through improved communication, streamlined business processes, and focused workforce development will be generated through the peer discussions.

Group Transit Asset Management Plan Development



John O'Har, KPMG, *presiding*
Janice Williams, VIA Metropolitan Transit, *recording*

Smaller transit agencies are given the option of joining a group plan for their state of operation. These group plans require strong collaboration between sponsors and operators. This session will provide insights on these "group plans" with examples from the transit agency, MPO, and State agency perspective.

Lots Group Asset Management Plan

Justin Barclay, Maryland Transit Administration

Regional Group TAMP for 16 Tier II Operators in the San Francisco Bay Area Region

Shruti Hari, Metropolitan Transportation Commission

Iowa's Approach to Transit Asset Management Group Plan

Sree Mitra, Iowa Department of Transportation

10:00 a.m.–10:30 a.m., *Ballroom Foyer*

Break

10:30 a.m.–Noon

Breakout Sessions

Discussion: The Data Governance Road Less Traveled—What Did Your Agency Learn Along the Way?



Anita Vandervalk, Iteris; Margaret Poteat, KPMG, *presiding*
Andrew Williams, Ohio DOT, *recording*

This session will feature two short presentations followed by a facilitated workshop discussion. The presentations to set the stage focus on a) the state of the practice with respect to data business planning within states and b) an international view of data governance techniques. The workshop will include breakouts to explore core aspects of a data management and government framework for successful asset management. Takeaways for participants will include a clearer, applicable plan of action for addressing gaps and refinements for each agency's journey towards effective and sustainable data governance and management practices.

Data Business Planning to Optimize Asset Management Decisions

Anita Vandervalk, Iteris



Cross Asset Prioritization  (AICPCredits), Crystal II Ballroom

Loren Turner, Caltrans, *presiding*
Shalini Chandra, Caltrans, *recording*

Dollars should follow system performance. These presentations illustrate various approaches to cross-asset allocation.

Case Studies in Implementation of Cross-Asset Resource Allocation Tools

William Robert, Spy Pond Partners; Craig Secrest, High Street Consulting

Implementation of a Multiple-Objective Decision Analysis (MODA) Approach for Prioritization of Asset Investments for Caltrans

Loren Turner, Caltrans; William Robert, Spy Pond Partners

Strategic Asset Management in the U.S. Public Port Industry—Exploring Opportunities for Increased Engagement

Erik Stromberg, Lamar University

Moving Towards a Statewide View of Resource Allocation

Tamara Haas, New Mexico DOT; Hyun-A Park, Spy Pond Partners, LLC

Panel on Optimizing Investments  , Diamond 1

Scott Richrath, Atkins, *presiding*
Rob Kafalenos, FHWA, *recording*

Before a final discussion group that will help “Bridge the Gaps Between Research and Implementation,” let’s round out the track on Analyzing and Optimizing Investment Options.

TransLink’s Enterprise Asset Management Journey - Factors of Success and Lessons Learned

Vikki Kwan, TransLink

Using Data to Make Better Investment Decisions: A Review of the NY MTA’s 35-Year History of \$118 Billion Worth of Investment to Restore and Improve Its System

Stephen Berrang, New York MTA HQ; Mildred Chua, MTA Bridges and Tunnels

Life Cycle Planning: What It Is and How It Can Be Used

Kathryn Zimmerman, Applied Pavement Technology, Inc.

Methodology to Enable Full TAM Plan implementation

Paul Thompson, Consultant

Asset Management within Transit Organizations   , Opal Room

David Rose, Gannett Fleming, *presiding*
Cecilia Crenshaw, FTA, *recording*

This session will showcase structured best practices and lessons learned session involving transit agency asset managers. The session provides the attendees the opportunity to learn first-hand about the success factors and pitfalls to avoid when improving asset management practices – on route to meeting the federal requirements and advancing organizational goals.

Panel Discussion

Laura Zale, SEPTA
Holly Arnold, Maryland Transit Administration
John McCormick, Bay Area Rapid Transit District
Matthew Wilson, Jacksonville Transportation Authority

Tuesday, July 17, 2018



Coordinating Your TAMPs: Addressing Assets You Don't Own and Local Agencies You Don't Own , Topaz Room

William Knowles, Texas DOT, *presiding*
Steve Gaj, FHWA, *recording*

MAP-21 and the FAST act set some new expectations for inter-agency coordination. Effective Performance Based Planning and Programming as well as Transportation Asset Management require working across jurisdictional boundaries to provide the mobility that the public desires. This session will explore these issues from a number of perspectives.

How Does Asset Management Fit into the Planning TPM Framework of the Overall Performance-Based Programs of States, MPOs, and Other Local Owners?

Harlan Miller, FHWA

The NOACA Case Study: Integrating Transportation Asset Management into the Planning Process

Kathy Sarli, Northeast Ohio Areawide Coordinating Agency (NOACA)

Developing an Asset Management Plan in Washington State Including Locally Owned Roads

Todd Lamphere, Washington DOT

Addressing Asset Management Coordination in North Central Texas

Jeff Neal, North Central Texas Council of Governments

Setting the Course for Compliance and Beyond—A Case Study of State, MPO, and Local Agency Coordination for NHS Target-Setting

Theresa Romell, Sui Tan, Metropolitan Transportation Commission

Noon–1:30 p.m., *Emerald Ballroom*

Lunch

1:30 p.m.–3:00 p.m.

Breakout Sessions (cont.)

“Is the Sky Really Falling?” Communicating TAM Results , Crystal I Ballroom

Julie Lorenz, Burns & McDonnell, *presiding*
Emily Tritsch, Portland Bureau of Transportation, *recording*

What does the data say about results from your TAM program? This session will focus on some best practices for communicating results effectively to ensure proper decision making throughout your organization.

Seattle's Sidewalk Assessment and Prioritizing Repairs

Emily Burns, Collen Fegley, Seattle Department of Transportation

TransLink's Capital Investment Decision Support Journey

Vikki Kwan, TransLink

Smart Use of GIS to Determine Asset Ages

Royce Greaves, WSP

Building an Inventory and Assessing Condition , Crystal II Ballroom

William Robert, Spy Pond Partners, LLC, *presiding*
Jennifer Duran, Caltrans, *recording*

Asset inventory and condition assessment approaches are well established for assets for such as pavement and bridges, but much work remains to determine what data to collect for other physical assets, and how best to assess their condition. This session includes a series of presentations describing approaches different agencies have followed to improve their asset inventories and condition assessment processes. It includes presentations on inventory and condition assessment for state DOTs, metropolitan areas, and transit agencies. It also includes discussion of recent research regarding inventory and condition data needed when including additional assets besides pavement and bridges in a highway asset management plan.

So You Think You Want Asset Management

Elizabeth Young, Richard Martinez, City of Fort Worth

Tuesday, July 17, 2018



Asset Management Process Driving a Vision for the Future

Paul Clark, Florida DOT; John Benda, Adam Horn, HNTB Corporation

Agency-Driven Transit Asset Management

Herb Higginbotham, Reagan Lynn, Nathan Higgins, Cambridge Systematics

Enterprise Data Collection—It's Not Just An Asset Anymore

John Puente, Ohio DOT

What Next? Prioritizing Assets Classes for Inclusions in an Asset Management Program

Brad Allen, Prashant Ram, Katie Zimmerman, Applied Pavement Technology

Discussion: Bridging the Gaps Between Research and Implementation



, Diamond 1

Sue McNeil, University of Delaware, *presiding*

Prashant Ram, APTech, *recording*

There are many tools available to support the analysis and optimization of investment options that vary in terms of ease of use, cost, and practicality. Innovative ideas are available, but they often don't match the needs of practitioners. This discussion session provides an opportunity to identify ideas and strategies that better link innovation and analysis tools with the day-to-day needs of asset management practitioners.

Communicating Asset Management



, Opal Room

Rob Zilay, Dye Management, *presiding*

Tamara Haas, New Mexico DOT, *recording*

Tools to Effectively Communicate Investment Decisions

Using Corporate Language to Sell Public Investments

Gordon Proctor, Gordon Proctor & Associates, Inc.; Shobna Varma, Starisis, Corp.

The Key To Convincing Your Stakeholders To Invest In Asset Management

Margaret Akofio-Sowah, WSP

Knowledge And Communication: How Good Training Builds Effective Transit Asset Management

Ruth Wallsgrove, Amcl; Tom Elner, Asset Management Academy

Using Enterprise Asset Management Principles to Shift an Organization's Operational Focus to a Customer: Centric Service Model for Better Strategic Alignment

Wayne Francisco, GHD Inc.; Mildred Chua, David Kraft, MTA Bridges & Tunnels

Advancing Practices in Strategic TAMP Development



(AICPCredits), Topaz Room

Matthew Haubrich, Iowa DOT, *presiding*

Peggi Knight, Iowa DOT, *recording*

What are the future frontiers for TAMP development? This session aims to address this question with presentations across multiple topics and asset types. Be prepared for an interactive session with plenty of opportunity for discussion.

Intellectual Property Concerns in Asset Management Planning

Jason Bittner, Hannah Silber, Kevin Chesnik, ARA

Moving From a Condition-Based 20 Year Needs Assessment to a Performance-Driven Asset Management Plan

David Kraft, MTA Bridges & Tunnels; Maxwell Brown, GHD Inc.

Practical Interface Opportunities Between Safety And Asset Management Systems

John Gasparine, WSP

Chasing Excellence: How Denver RTD Is Transforming Its Asset Management Capability Through ISO 55000

Louis Cripps, Regional Transportation District; Simon Smith, AMCL

3:00 p.m.–3:30 p.m., Ballroom Foyer

Break

Tuesday, July 17, 2018



3:30 p.m.–5:00 p.m., *Emerald Ballroom*

Closing Session

Laura Mester, Michigan DOT and Conference Chair, *presiding*

The conference presentations demonstrate the evolution that is taking place in asset management today. Just a few years ago, most agencies were identifying an asset management champion and focusing on building an asset management culture. Today, agencies are moving towards a more sustainable, cross-cutting, and evolved program.

In the closing session, each of the Track Chairs will share highlights from their sessions related to ways in which:

- The practice of asset management is evolving,
- Agencies are creating sustainable asset management programs that are embedded in the organization's culture,
- Technology is influencing the way decisions are made, and
- Data are being used to speak to multiple audiences.

The session will conclude with a summary of gaps that would benefit from further research or technology transfer efforts.

Track Leads:

Analyzing and Optimizing Investment: Scott Richrath, Atkins

Data Systems to Improve Decisions: Andrew Williams, Ohio DOT

Implementation: Michael Johnson, Caltrans

Organization and Workforce: Anita Bush, Nevada DOT

TAMPs: Matthew Haubrich, Iowa DOT

Transit: Laura Zale, SEPTA

Resilience: Niles Annelin, Michigan DOT

5:00 p.m.–6:00 p.m., *Pearl Room*

Planning Committee Debriefing (*Invitation Only*)





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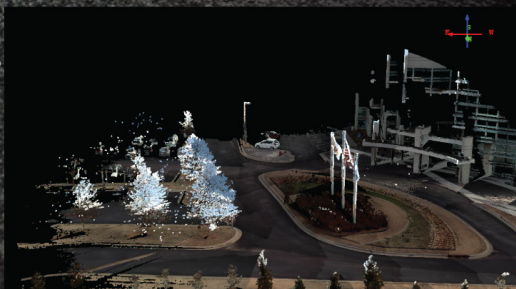
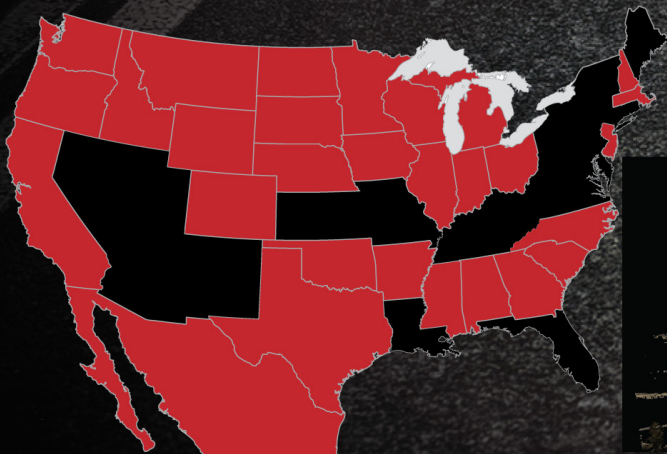
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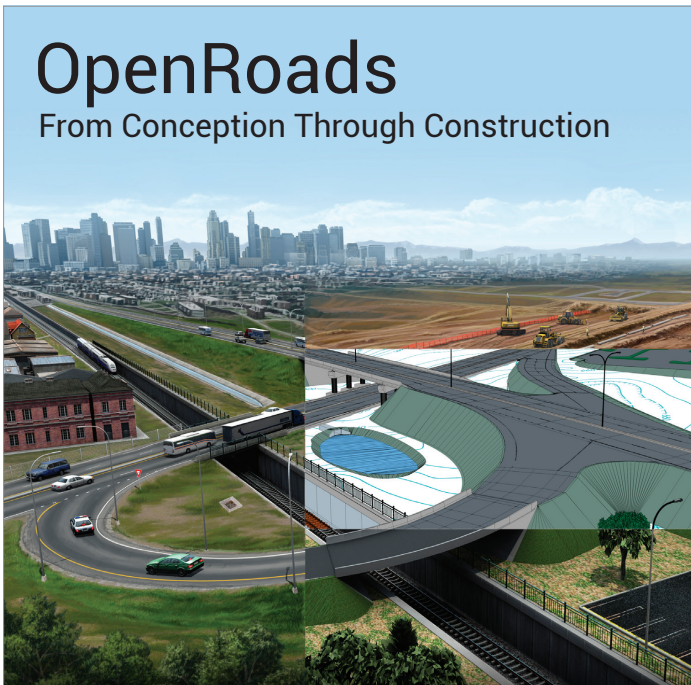
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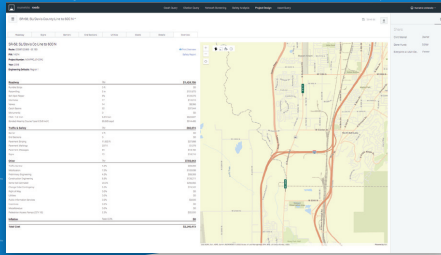
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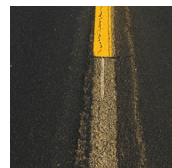
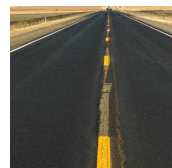
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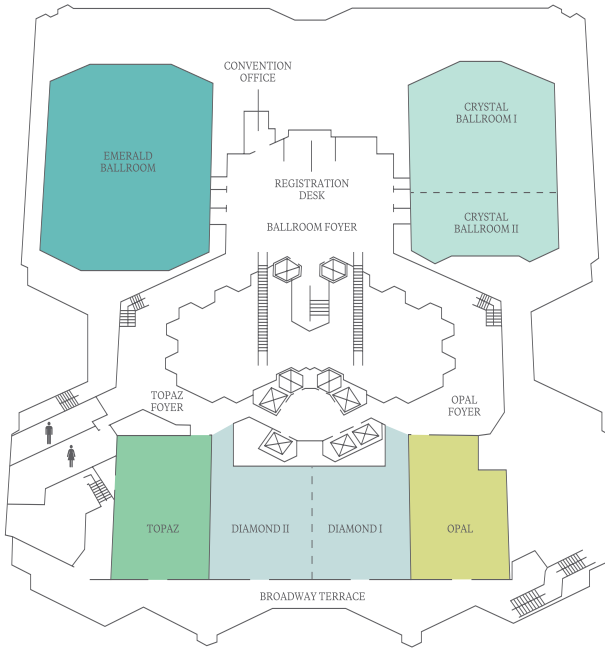


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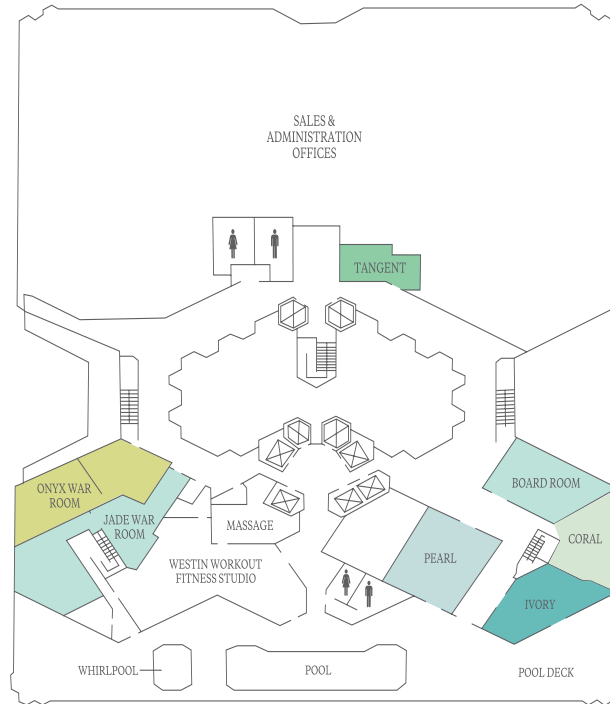


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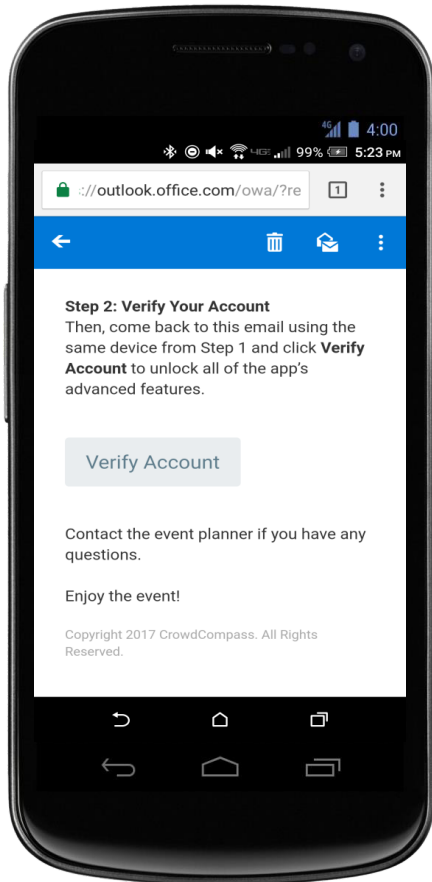
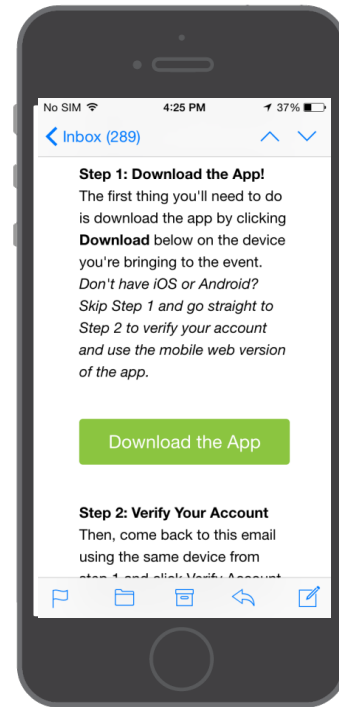
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