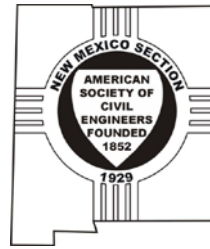




AMERICAN PLANNING ASSOCIATION



**AMERICAN SOCIETY OF
CIVIL ENGINEERS**

**NEW MEXICO JOINT ANNUAL CONFERENCE
“Building Alliances for a Livable New Mexico”**

September 23-25, 2015

Las Cruces Convention Center • 680 E. University Ave. • Las Cruces, New Mexico • 88011

<https://www.eventbrite.com/e/2015-apa-nm-asce-nm-joint-conference-tickets-14227389505>

PROGRAM CHAIR-PERSONS: Andy Hume, AICP & Walter Gerstle, P.E.

**PROGRAM AT A GLANCE
(See the following pages for session details)**

Time	Wednesday, Sept. 23		Thursday, Sept. 24		Friday, Sept. 25
7:30-8:30	Conference Team and Volunteer Setup		Registration and Continental Breakfast	LPAC Breakfast Meeting	Registration and Continental Breakfast
8:30-10:00			Block 3		
10:00-10:15	Conference Registration/ Exhibitor Setup		Break		Break
10:15-11:45			Block 4		Block 8
11:45-1:45	Lunch, Welcome Building Alliances Plenary I State Representative Jeff Steinborn – Rio Grande Trail		Lunch & Keynote Speaker Kevin Shepherd, P.E., ENV-SP: “Bridging the Gap Together To Build Livable, Resilient Communities”		Lunch, Closing/ Building Alliances Plenary II
			APA-NM Chapter Business Meeting	ASCE-NM Chapter Business Meeting	
1:45-2:00	Transition		Transition		
2:00-3:30	Block 1		Block 5		
3:30-3:45	Break		Break		
3:45-5:15	Block 2	Bicycle Tour 4:00-6:00	Block 6		
5:30-6:30	Reception Downtown on Main Street		Reception at Convention Center Exhibit Hall		
6:30-7:30					
7:30-8:00		Dinner on Main Street			
8:00-10:00	Movie on Main Street				

Wednesday, September 23, 2015

2:00 – 3:30 • Block 1

Session # & Moderator	Speakers & Summaries
1A Meghan McDonald	<i>Transportation and Construction, Part 1</i>
	<p>“Addressing Stakeholder Perception of Risk in Project Planning and Design” Alan Kuhn, Ph.D., P.E., RG, D.GE, F.ASCE: A presentation of common perceptions and misperceptions of public stakeholders about the risks of proposed infrastructure and industry projects, the roles played by NGOs, and the challenges to planning and engineering professionals in bringing facts and logic to the discourse. Audience participation is invited to share experience and viewpoints.</p>
	<p>“Securing Our Infrastructure and the Key Role of Professional Engineers” Narendra Taly, Ph.D., P.E., F.ASCE and Rudolph V. Matalucci, Ph.D., P.E., ASCE-BSCP: An informative, thought-provoking presentation on the threats to our infrastructures from malevolent elements, terrorists groups, etc., which has become a matter of great concern for our country. This paper presents innovative ideas and strategies for an active role play by professional engineers in providing security to our infrastructures.</p>
	<p>“Importance of Geotechnical/Foundation Engineering Construction Inspections in Maintaining Sustainable Infrastructure” John C. Lommler, Ph.D., P.E.: Geotechnical engineers must make assumptions about the nature of on-site geomaterials based on limited amounts of field and laboratory testing. During design they must make more assumptions about the construction methods and procedures used to build earth structures and prepare foundations to accept loadings. Geotechnical engineering construction inspections bridge the gap between theory/practice and constructed reality.</p>
1B Richard Meadows, AICP	<i>Fundamentals/Principles</i>
	<p>“Vision Zero: Reducing Traffic Crashes to As Low As Reasonably Achievable (ALARA)” Khalil J. Spencer: A look at “As Low As Reasonably Achievable” as an outcome of transportation planning and engineering. What do we need to do to achieve this goal? ALARA looks at specific kinds of safety thinking.</p>
	<p>“Bicycling Planning 101” John Hooker:</p> <p>“Utilizing Public-Private Partnerships and Funding To Create Local and Regional Innovation” Lola Bird and Valerie Hermanson: BICI, Albuquerque’s downtown pilot bike share launched on May 15 with 13 stations and 65 bicycles. Through both a creative partnership between the DowntownABQ MainStreet Initiative and the Mid-Region Council of Governments, and through public-private funding, Albuquerque was able to realize the first phase of BICI for residents and visitors.</p>

1C Walter Gerstle, Ph.D.	<i>Going Green</i>
	<p>“Earth Sheltering for Sustainability”</p> <p>Loretta Hall: Underground or earth-sheltered structures provide environmental benefits, including efficient land use, building maintenance reduction, interior environment control, and natural habitat preservation. Today's underground buildings are comfortable, spacious, sun-filled, and surprisingly common. Using a variety of modern examples, this presentation explores the advantages as well as design constraints and construction challenges of earth-integrated buildings.</p>
	<p>“Conception, Design, Construction, and Performance Evaluation of LEED Platinum Rated Home”</p> <p>Charles D. Turner, Ph.D., P.E., LEED AP: This high performance home was conceived by a civil engineering professor and his wife, designed by an architect in Nebraska, built in southern New Mexico, and performance evaluated over a two year period for energy use, generation and water consumption. Challenges, costs and livability are presented.</p>

3:45-5:15 • Block 2	
Session # & Moderator	Speakers & Topics
2A Meghan McDonald	<i>Transportation and Construction, Part 2</i>
	<p>“NMDOT's Treatment-Focused Budget Optimization Approach to Managing Pavement Assets”</p> <p>Kelly Montoya: NMDOT has used the AgileAssets Pavement Management System (PMS) since 1998, but has not taken advantage of its full functionality until recently. A new framework has been added that makes project-related pavement treatment decisions based on benefit analyses across 3 new condition indexes, allowing for budget optimization through a more focused treatment approach.</p>
	<p>“Case Studies on Spatial Uniformity in the Pavement Structure”</p> <p>Naomi Waterman: The modulus values for soils and asphalt concrete are a crucial parameter for pavement design and performance. This study examines two construction projects that were tested and analyzed by way of the FWD (Falling Weight Deflectometer) test for constructed variability of the back-calculated moduli.</p>
2B Sharon Hausam, Ph.D., AICP	<i>Innovation/Specialization</i>
	<p>“Rural and Small-Town Complete Streets: From Planning to Engineering”</p> <p>Sharon Hausam, Ph.D., AICP, Mike Brazie, P.E., CPG, Sally M. Davis, Ph.D, Jeff Sanchez, P.E., and Tim Rogers, MCRP, MALAS: The session will highlight successful pedestrian and bicycle projects in rural/small-town New Mexico, in the Pueblo of Laguna and the Village of Cuba. Presenters will discuss “Complete Streets” principles; community-based planning; health impact assessment; connectivity; and engineering design of sidewalks, trails, road diets, and roundabouts.</p>

2C Andy Hume, AICP	<i>Form and Function</i>
	<p>“Downtown Las Cruces: A Story in the Making, Part One” – Walking Tour (Seating is limited)</p> <p>Arianna Parsons and Andy Hume, AICP: An interactive tour of the downtown Las Cruces revitalization efforts, including successes and challenges. The discussion will integrate foundational planning, innovation, sustainability and place-making with the real world example of a downtown in the process of revitalization. Attendees will see the newest projects and areas with potential for adaptive reuse.</p>
2D Amanda White, P.E.	<i>Communication/Public Engagement</i>
	<p>“Growing Your Public Involvement with Technology”</p> <p>Filiberto Castorena, P.E., A.J. Romero, P.E. and Wyatt Kartchner, P.E.: Tools and techniques used to increase public involvement through television, internet, and social media for the Valley Drive Location Study in Las Cruces, NM</p>
	<p>“Real Time Traveler Information and Intelligent Transportation Systems (ITS): Improving Travel and Safety”</p> <p>Nathan Masek: Intelligent Transportation Systems involves the use of technology and advanced communications to improve flow and congestion information in the transportation system. Recent legislation requiring agencies to provide “real time” travel conditions information will enhance traveler mobility and safety in metro areas, leading to improved quality of life and livability.</p>

Thursday, September 24, 2015

8:30 – 10:00 • Block 3	
Session # & Moderator	Speakers & Topics
3A Sandy Gaiser, AICP	<i>Fundamentals/Principles</i>
	<p>“Sisterhood of the Traveling Plan(ners)”</p> <p>Sandy Gaiser, AICP & Loretta Reyes, P.E.: A facilitated discussion and panel of three planners to explore career advancement; negotiating salary and benefits; and perspectives on the prevalence of discrimination in the workplace. The focus is on take-away lessons and strategies that we can implement in our own workplaces.</p>
3B Francine Pacheco	<i>Innovation/Specialization</i>
	<p>“Place Matters: Making Health the Foundation of Land Use Planning”</p> <p>Kari Bachman, James Aranda, Ariel Bickel, Matt Cross-Guillén, and Michaele Pride: Attendees will explore why and how to work collaboratively with community members and policymakers to craft and implement policies and codes that advance health equity. They will also preview the new Citizen Land Use Leadership Academy, which gives community members the tools to effectively engage in the planning process.</p>
3C	<i>Environment and Water Resources, Part 1</i>

Lambis Papelis, Ph.D.	<p>“Water Resources and Water Conservation (The Albuquerque Bernalillo County Water Utility Experience)”</p> <p>Timothy F. Cynova, P.E., F.ASCE: Existing water resource types and water conservation methods will be discussed with an eye on the future for resource sustainability. In New Mexico, “Water is cheaper than Sand” when delivered to a home and compared to the cost of water delivered to the consumer. Resource management is key in preserving and delivering this limited resource.</p>
	<p>“Infrastructure Master Planning with Big Data”</p> <p>Christopher J. Nance, P.E.: An overview of the Wastewater Collection Master Plan for El Paso Water Utilities project covering model development, GIS analysis, principles of asset management and CIP development.</p>
	<p>“The Brackish Groundwater National Desalination Research Facility”</p> <p>Randy Shaw, P.E.: This presentation will introduce the Brackish Groundwater National Desalination Research Facility and cover the background, focus, features and clients of the facility.</p>
3D Andy Hume, AICP	<p><i>Form and Function</i></p>
	<p>“Downtown Las Cruces: A Story in the Making, Part Two” – Panel and audience discussion</p> <p>Arianna Parsons and Andy Hume, AICP: A panel discussion of the downtown Las Cruces revitalization efforts, including successes and challenges. The discussion will integrate foundational planning, innovation, sustainability and place-making with the real world example of a downtown in the process of revitalization. Attendees will see the newest projects and areas with potential for adaptive reuse.</p>

10:15-11:45 • Block 4	
Session # & Moderator	Speakers & Topics
4A Justin Lyon, P.E.	<p><i>Innovation/Specialization</i></p>
	<p>“Civil Engineering, Planning, and the Spatial Data Infrastructure”</p> <p>Earl F. Burkholder, PS, PE, F.ASCE: This paper highlights development of the digital 3-D spatial data infrastructure and describes the importance of the foundation it provides for planning and construction of civil facilities. Using GIS and BIM, the spatial data infrastructure plays an equally important role in the administrative life cycle of existing facilities.</p>
	<p>“Bringing your Documents Alive with ArcGIS Online: Story Maps and Tutorial”</p> <p>Caeri Thomas, AICP and Andrew Gingerich: Mid-Region MPO is using ArcGIS online to provide information to the public about our Metropolitan Transportation Plan. The presentation will cover the use of story maps to highlight key areas of the MTP and the utility of using ArcGIS online to engage people and provide easy access to spatial data.</p>
4B	<p><i>Form and Function</i></p>

Gerald Parker, P.E.	<p>“Complete Streets, ‘Why and How?’: The Realizing El Paseo Case Study”</p> <p>Srijana Basnyat, CNU-A, AICP, Peter Martin, P.E., Ph.D., and Loretta M. Reyes, P.E.: Implementing a Complete Street plan is more complex than just design and build. <i>Realizing El Paseo</i>, a collaborative undertaking and recipient of the 2014-2015 Urban Sustainability Accelerator program grant, jumpstarts the process and builds new working relationships among local government, university and local business/real estate organizations.</p>
	<p>“International Lessons Learned: Complete Streets and the need for Context Sensitive Road Design”</p> <p>Kristal Metro, P.E.: Attendance at a Summer 2014 seminar titled “Sustainable Construction Techniques: Integrative Decisions for Sustainable Infrastructure” has led to new ideas for implementation of complete streets and context sensitive design in the state of New Mexico. A contrast/comparison between German sustainability methods and the state of New Mexico will be provided.</p>
4C Lambis Papelis, Ph.D.	<p><i>Environment and Water Resources, Part 2</i></p>
	<p>“Drought, Climate Change, and Interstate Litigation: Dr. Doom’s Update on Water in the Lower Rio Grande”</p> <p>James P. King, Ph.D.: New Mexico’s Lower Rio Grande is faced with unprecedented threats to its future water supply. At the same time, local water users are developing innovative ways to cope with short and long term constraints on water supply to provide for continued development in the area.</p>
	<p>“Potable Water Reuse in Arid Inland Communities: Understanding the Technical, Social, Legal, and Economic Opportunities and Constraints”</p> <p>Caroline Scruggs, Ph.D., P.E. and Jason Herman: In the face of increasing population, development pressures, and climate change effects, many regions around the world face freshwater shortages. This presentation discusses options for communities to create sustainable and reliable “new” water supplies – along with the options’ opportunities and constraints – with a focus on the arid, inland context.</p>

2:00 – 3:30 • Block 5	
Session # & Moderator	Speakers & Topics
5A Laurie Moye	<p><i>Innovation/Specialization</i></p>
	<p>“Today’s Shifting Energy Landscape”</p> <p>Emilie Dohleman, Gary Barnard, Laurie Moye, and Richard Turner: Electric utilities are facing new challenges due to regulatory obligations and compliance mandates. They are responding in order to ensure system reliability. The session will provide information about how electricity is provided to customers and how changes in statewide service territories might affect planning and development.</p>
5B	<p><i>Fundamentals/Principles</i></p>

<p>Christina Ainsworth, AICP</p>	<p>“Our Roots are on the Route! - Transportation Planning Leads the Way to Preservation, Beautification, and Economic Development”</p> <p>Christina Ainsworth, AICP, Cheryl Somerfeldt Wagner, and David Pennington: There are many transportation planning challenges impacting community beautification and economic development in the Village of Los Lunas. The creation of a Corridor Management Plan (CMP) distinguished their unique positioning on the Historic Route 66 National Scenic Byway. The CMP goals included preservation, beautification, tourism, and economic development.</p>
<p>5C Lambis Papelis, Ph.D.</p>	<p><i>Environment and Water Resources, Part 3</i></p>
	<p>“A Nutrient Delivery System for Plants Based on Zeolites”</p> <p>Tiffany Tillison and Lambis Papelis Ph.D.: Agriculture represents a significant part of the New Mexico economy, but also requires significant quantities of fertilizers and water. The objective of this project was to develop a new method of efficient delivery of nutrients, while at the same time improving water delivery to plants, using zeolites.</p> <p>“Pervious Concrete: Sustainable Stormwater Solution”</p> <p>Jerry B. Paz, P.E. and John C. Lommler, Ph.D. P.E.: This presentation will review the suitability of using Pervious Concrete Pavement as a sustainable practice for stormwater management. It will include discussion on where it is applicable and why it is not a solution in all cases.</p>
<p>5D Mary Holton, AICP</p>	<p><i>AICP Comprehensive Examination, Part 1</i></p>
	<p>“History, Theory, and Law; Plan Making and Implementation; and the AICP Code of Ethics”</p> <p>Especially designed for candidates taking the November 2015 exam, but open to everyone, this workshop will cover the following portions of the AICP Comprehensive Examination: History, Theory, and Law; Plan Making and Implementation; the AICP Code of Ethics and Professional Conduct. It will include resources and studying tips, an overview of concepts, and practice questions.</p>

3:45-5:15 • Block 6	
Session # & Moderator	Speakers & Topics
<p>6A Walter Gerstle, Ph.D.</p>	<p><i>Fundamentals/Principles</i></p>
	<p>“ASCE Strategic Planning and Raising the Bar”</p> <p>Walter Gerstle, Ph.D., P.E. & Kenneth Morris, P.E., PTOE, M.ASCE: Panel comments and audience discussion covering the following areas: Education issues, including curriculum and requirements; Impacts of technology on engineering field; Future of the field related to emerging subdisciplines; and Encouraging enrollment and activity in ASCE.</p>
<p>6B</p>	<p><i>Communication/Public Engagement</i></p>

Sharon Thomas	<p>“The Empowerment Congress: Building Participation Across Communities”</p> <p>Sharon Thomas, Amanda Formica, Dr. Letty Mora, Mary Ann Galindo, Charles Clements, and Alma Boothe, Dr. Michael McAdams, America Terrazas, Caeri Thomas, AICP: The members of the Empowerment Congress have participated in a number of planning initiatives in Doña Ana County. They attend public meetings, speak at county commission meetings, do education and outreach, and have formed an alliance of colonias and historical communities. They will bring their community perspective on participation and building livable communities in southern New Mexico.</p>
6C Amy Rincon	<i>Fundamentals/Principles</i>
	<p>“Planning Survivor: 13 Communities from Community Plan to Zoning”</p> <p>Amy Rincon, Erin Ortigoza, Paul Olafson, and Robert Griego: Santa Fe County has been working with 13 Communities to update existing community plans and ordinances and translate them into the new Santa Fe County planning framework. The new framework came with the adoption of the SGMP. This presentation will discuss overall process goals and outcomes through case studies of the communities.</p>
6D Mary Holton, AICP	<i>AICP Comprehensive Examination, Part 2</i>
	<p>“Functional Areas of Practice; Spatial Areas of Practice; and, Public Participation and Social Justice”</p> <p>Especially designed for candidates taking the November 2015 exam, but open to everyone, this workshop will cover the following portions of the AICP Comprehensive Examination: Functional Areas of Practice; Spatial Areas of Practice; and, Public Participation and Social Justice. It will include resources and studying tips, an overview of concepts, and practice questions.</p>

Friday, September 25, 2015

8:30 – 10:00 • Block 7	
Session # & Moderator	Speakers & Topics
7A Erick Aune, AICP	<i>Form and Function</i>
	<p>“Community Engagement in Landscape Design”</p> <p>Cathy Matthews, ASLA: Cross-discipline cooperation often results in superior projects. Though time consuming, up-front discussions and public input sessions help clarify issues, define public needs, and lead to better projects. In this presentation we’ll see the results of a number of cooperatively designed landscape projects, looking for positive outcomes and areas for improvement.</p>
	<p>“Los Alamos County Central Avenue Streetscape”</p> <p>Philo S. Shelton III, P.E. and Ernesto R. Gallegos: Los Alamos County rebuilt Central Avenue from 15th to Bath Tub Row including streetscape and complete street designs in coordination with a MainStreet grant to provide lighting and street furnishings. The project required much planning and coordination with various interest groups, employed green practices, and has place-making designs.</p>
7B	<i>Structures, Part 1</i>

Brad Weldon	<p>“Peridynamic Modeling of Reinforced Concrete Structures”</p> <p>Walter Gerstle, Seth McVey, and Shreya Vemuganti: Peridynamics provides an alternative to continuum mechanics. However, peridynamics is more general because it allows discontinuities and cracks to emerge. Much as Timoshenko brought the classical theory of elasticity to the practicing engineers, this presentation brings peridynamics to modern engineers, who with computers are aided in solving previously unsolvable problems.</p>
	<p>“Inclined Launch Facilities and New Mexico’s Spaceport”</p> <p>Raymond S. Leonard, P.E. and James Daniel, P.E.: New Mexico has invested in creating Spaceport America. Holloman’s High Speed Test Track facility is investigating MagLev technology for enhancing the facilities capability. Both NASA and the Air Force have investigated the benefits of an inclined launch facility to provide first stage capability.</p>
	<p>“Regenerating Hardman Hall - The NMSU Undergraduate Learning Center”</p> <p>Francis G. Catanach, P.E.: The demolition of Jacobs Hall, the renovation and upgrades to Hardman Hall, and the enveloping of the site with the new Undergraduate Learning Center make the best use of space, money, and time resources to deliver an exciting facility for the next generation of students.</p>
7C Sandy Gaiser, AICP	<p><i>Fundamentals/Principles</i></p>
	<p>“Ethics for Planners and Engineers”</p> <p>Jerry Dixon and Anita Miller: This session satisfies the Ethics credits required for AICP Planners and Professional Engineers.</p>
7D Mary Holton, AICP	<p><i>Planning Commissioner Training</i></p>
	<p>“Roles, Responsibilities, Meeting Procedures”</p> <p>Well-informed planning commissioners are essential to creating great communities. Conducting public meetings to invite input and concerns from citizens is an important part of the job. The commission gives voice to the community while helping residents understand proposals and the goals of the community’s comprehensive plan. This session will focus on commissioners’ roles and responsibilities, the structure of public meetings, and appropriate roles for commissioners and staff.</p>

10:15-11:45 • Block 8	
Session # & Moderator	Speakers & Topics
8A Mary Ashburn Pearson, AICP	<p><i>Innovation/Specialization</i></p>
	<p>“10 Things You Need to Know about Airports”</p> <p>Mary Ashburn Pearson, AICP: This presentation will explain the basics about airports and why it is important to include them in planning efforts. 10 topics are: (1) Why are airports important to our communities? (2) Airport Master Plans (3) Aircraft noise basics; (4) Geometry standards; (5) Funding basics; (6) NEPA process; (7) Airspace basics and requirements; (8) A pilot’s perspective; (9) Planning best practices; (10) Sample zoning ordinance.</p>
8B Brad Weldon	<p><i>Structures, Part 2</i></p>
	<p>“I-25/Missouri Ave Bridge Replacement Project in Las Cruces”</p> <p>Greg Harasha: FNF Construction will present an overview of the project from the Contractor’s perspective.</p>

	<p>“NDT (Nondestructive testing) Technologies for Transportation Infrastructure” Monica C. Jurado and Soheil Nazarian, Ph.D., P.E., D.GE: Nondestructive testing (NDT) is the process of inspecting, testing, or evaluating materials, components or assemblies for discontinuities, or differences in characteristics without destroying the serviceability of the part or system. This presentation will focus on the NDT technologies used for testing, evaluation, and acceptance in transportation infrastructure.</p>
<p>8C Walter Gerstle, P.E.</p>	<p><i>Fundamentals/Principles</i></p>
	<p>“ASCE Codes and Standards” Conrad Keyes: An overview of the ASCE Codes and Standards Program and how it all works from Policy to Proposal to Publication.</p>
<p>8D Mary Holton, AICP</p>	<p><i>AICP Law Session and Planning Commissioner Training</i></p>
	<p>“Ethics, Legal Issues” – This session satisfies the Law credits required for AICP Planners. Well-informed planning commissioners are essential to creating great communities. This session will focus on an ethical and legal framework for planning commissioners, including how they can conduct their meetings and themselves in a manner that protects the public trust and ensures that the planning process is fair, equitable, and transparent. APA’s Ethical Principles in Planning will be highlighted, as well as the basics of laws that apply to planning, land use, and procedural due process. Quasi-judicial proceedings and recent case law, including U.S. Supreme Court decisions, will be examined in this session.</p>