



Vertical Design, Energy/Climate Strategy & Water Resources

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Wednesday, April 24

9:30 AM – 10:15 AM

Update from Office of State Engineer

Newly appointed State Engineer Jason Ullmann, PE, will provide an update on his priorities for the Division of Water Resources, as well as other topics such as recent legislation affecting the agency and compact compliance.

Speaker

- **Jason Ullmann, PE**, Office of the State Engineer, Colorado Department of Natural Resources, State Engineer

10:30 AM – 11:15 AM

Strategies for Firm Resilience: Leveraging Trends, Human Capital, and Market Insights

Uncertainty serves as a constant variable, compelling us to create firms that stand resilient amidst ever-changing dynamics of economic conditions, workforce factors, and client needs. Whether your firm boasts a five-year legacy or century-long history, resiliency is top of mind in today's economy. As trends in the built environment change we must adapt.

Firms that excel in weathering change are those equipped with a deep understanding of their unique offerings and the ability to leverage human capital in meaningful ways.

Speaker

- **Kate Allen PE**, Stambaugh Ness, Director

11:30 AM – 12:15 PM

Resiliency in the Face of Adversity: A Tale of Infrastructure and Climate Change

World-wide, both our human and natural environments continue to experience changing climatic patterns that are contributing to increased frequency and intensity in both wildfires and storm events. Statewide resiliency planning studies have developed GIS-based methods and tools to identify most vulnerable infrastructure, assign risk and criticality scores, and prioritize roadway, culvert, and bridge concerns. These same techniques could be used throughout the Intermountain

West to help prioritize transportation system upgrades to prevent the isolation of limited access communities and to proactively mitigate the effects of flooding and costs associated with reactive emergency repairs.

Speaker

- **Rick Black, PhD**, SLR International Corporation, Principal Scientist, Ecology and NEPA

2:00 PM – 2:45 PM

Sorting Through the Utility Noise to Make Music

Explore how the significant influx of utility information encountered throughout the pursuit and pre-award stages of a design-build project can be used for engineering success. In these critical phases, the volume and complexity of utility data play a pivotal role in project success. The presenters will discuss how they analyze the challenges faced in managing this abundance of information and propose strategies for effective integration into the project planning process. By addressing these issues, this research aims to enhance the efficiency and reliability of design-build project, ultimately reducing delays and costs.

Speakers

- **Garrett Coffin, PE**, Kiewit Infrastructure Engineers
- **Vinnie LaVallette**, Kiewit Engineering Group, Sr. Utility Coordination Manager

3:15 PM – 4:00 PM

New Sustainability Requirements For Buildings: Colorado Building Performance Standards & Energize Denver Ordinance

Both the Colorado Building Performance Standards (Regulation 28) and the Energize Denver Ordinance have gone into effect with deadlines rapidly approaching for compliance with energy and greenhouse gas reduction requirements. These rules affect nearly every building in Denver over 25,000 square feet and nearly every building in Colorado over 50,000 square feet with penalties for non-compliance that could be in the millions of dollars. The two regulations will be compared and contrasted side-by-side to help you understand how the rules may apply to you and your clients. The speakers for this session manage the programs for the City and County of Denver and the Colorado Energy Office and can answer your questions about every detail of their programs.

Speakers

- **Bill Green, PE**, The RMH Group, Principal
- **Crystal Egelkamp**, Colorado Energy Office, Building Performance Program Manager
- **Daniel Raynor**, Denver's Office of Climate Action, Sustainability, and Resiliency (CASR) , Industrial Administrator

Thursday, April 25

9:30 AM – 10:15 AM

Update from Mile High Flood District

Speaker

- [Laura Kroeger, PE](#), Mile High Flood District, Executive Director

10:30 AM – 11:15 AM

Office of State Architect: Buy Clean Colorado

The Buy Clean Colorado Act Policy applies to State public projects for which the cost exceeds five hundred thousand dollars and for which an agency of government issues a solicitation on or after January 1, 2024. This law directs the Office of the State Architect to establish maximum acceptable global warming potential (GWP) limits for categories of eligible materials, which include asphalt and asphalt mixtures, cement and concrete mixtures, glass, post-tension steel, reinforcing steel, structural steel, and wood structural elements.

This presentation will explain:

- How the Buy Clean Colorado Act plays a role within State public projects;
- How the Buy Clean Colorado Act and the CO Sales and Use Tax exemption applies to private projects; and
- How the OSA determined it's first round of GWP limits.

Speakers

- [Bailey Vigil](#), Office of the State Architect, LEED Green Associate, GHG Emissions Analyst
- [Rodney Vanderwall](#), Office of the State Architect, Manager of Energy and Environment
- [Hydie Alcantara](#), Office of the State Architect, Building Materials Tax Analyst

11:30 AM – 12:15 PM

Today's Challenges in Vertical Design Practice: Part I

These topics commonly present challenges to project management and may create liability for consultants if not properly addressed.

- Deliverables: The expectations of the consulting engineer's deliverable is changing quickly. Moving from paper drawings that reflect "intent" to common data environments with all parties having access to models has created new challenges.

- **Budgets, Costs & Bidding:** The consulting engineer's scope usually does not include cost estimating nor a role in the bidding process in vertical construction. Yet many claims and disputes involving engineers arise from early packages, delays and the commercial transaction between the owner, contractor and trade subcontractors.

Speakers

- **Jack Petersen, PE**, Martin/Martin Consulting Engineers, Principal, Structural Department
- **John Flocco**, USI Insurance Services, Partner | Executive Vice President
- **Michael Passas, PE**, MDP Engineering Group, President
- **Brant Lahnert, PE**, KL&A, Principal Engineer/CFO
- **Meaghan McGee, PE**, Kimley-Horn

2:15 PM – 3:00 PM

Today's Challenges in Vertical Design Practice: Part II

These topics commonly present challenges to project management and may create liability for consultants if not properly addressed.

- **Construction Defects:** The environment designers work in is increasingly litigious with regard to alleged design errors and regulatory and legislative changes continue to threaten changes to the standard of care.
- How is the role of government changing vertical design?

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3:30 PM – 4:15 PM

Street Lighting Master Planning for Environment & Social Justice

The Salt Lake City Street Lighting Master Plan incorporates guideposts of Safety, Character, Equity and Responsibility, along with on-going community engagement, to ensure that this Master Plan is implemented to prioritize historically underserved communities. This presentation will explore the principles and techniques that are being utilized to enable Salt Lake City to make decisions that are informed by GIS data analytics, responsible lighting technology and citizen engagement to implement their Street Lighting Master Plan.

Speakers

- **Dane Sanders, PE**, Clanton & Associates, Inc., President
- **Nick Mesler, PE**, Evari Consulting, Inc., Director of Operations

