

IOWA ENGINEERING CONFERENCE

MAY 17-18, 2023

MARRIOTT - WEST DES MOINES, IOWA

FULL SESSION DESCRIPTIONS

Wednesday, May 17, 2023

9:00

WELCOME REMARKS

9:05-10:05

Revitalizing a Rural Iowa Hub through Partnership and Focus on Strengths

The City of Fort Dodge is in the process of revitalizing neighborhoods and undeveloped areas adjacent to the Des Moines River. Through comprehensive river corridor planning, neighborhood revitalization efforts, market analyses, and infrastructure improvement projects, the city is converting a perceived barrier into their greatest asset to improve the lives of its residents. This presentation will walk through the partnerships, planning processes, dam removals and mitigation bank establishment, permitting, neighborhood revitalization efforts, and public infrastructure projects along, adjacent, and within the Des Moines River in the Northwest, Central, and Southwest River Districts of Fort Dodge.

Presenters: Wade Greiman, PE, Snyder and Associates and Chad Schaeffer, PE, City of Fort Dodge

10:05-10:20

BREAK

10:20-11:20

Preserving Lake Okoboji Water Quality

The City of Okoboji's existing sewer system had an outlet into Lake Okoboji with the potential to direct flow into the lake under high flow conditions. This presentation will discuss how Bolton & Menk, Iowa Great Lakes Sanitary District, and the City of Okoboji set out to redirect a significant amount of upstream flow to eliminate the risk of the system flowing directly into the lake, allow for the future abandonment of the existing sewer main along the shoreline, and to provide a new future sewer main for residents to connect to positioned in the nearby roadway instead of along the shoreline in their backyards.

Presenters: Josh Pope, PE, Bolton & Menk

11:20-12:20

Open Roads Designer Application in Complex Projects

As the industry continues to incorporate 3D design technology, the power and flexibility of ORD is apparent when utilized within complex, large-scale projects spanning multiple years. A project specific discussion will include utilizing ORD to account for the modeling and quantification of over 500,000 cubic yards of staged earthwork within a \$200M interstate and interchange reconstruction.

The earthwork was staged to account for multiple contracts, earthwork storage and access across construction seasons, realignment of the mainline interstate pavement, and also includes the conversion of an existing cloverleaf to a diverging diamond interchange.

Presenters: Travis Kluegel, Alfred Benesch and Jeffrey Tardy, Alfred Benesch

12:20-1:30

LUNCH WITH BUSINESS MEETING

1:30-2:30

Drones: The New High-Flying Workplace Technology

Learn how drone data can create the foundation for more advanced technologies such as Thermal Inspections, Artificial Intelligence, Twin Modeling, & Augmented Reality. This presentation is how Benesch is utilizing UAS (drones) in everyday workflow by implementing Thermal Imagery to detect & quantify delamination in concrete pavement on bridge decks; cutting edge Artificial Intelligence to detect and quantify cracking in asphalt and concrete pavement; Twin Modeling used to aid and document Bridge Inspections; innovative Augmented Reality bringing the project site to into the office in a futuristic environment. This presentation will discuss how Benesch put together these workflows, the methodology behind the technology, and a look at how Benesch is working to advance the way the AEC industry approaches innovative technology.

Presenter: Bret Tremblay, Alfred Benesch

2:30-2:45

BREAK

2:45-3:45

Navigating a Hybrid Workplace

The pandemic created a disruption in the workplace, causing many firms to adapt a new style of work. It has been said the hybrid workplace is here to stay and is slowly becoming the new normal. In this ever-increasing War on Talent, a hybrid workplace is the new expectation of your future employees. Learn what a hybrid workplace is and its benefits; how Bolton & Menk was able to create a hybrid workplace, and common pitfalls we had to navigate around to continue our culture of collaboration, inclusion and productivity.

Presenters: Jim Harbaugh, Bolton & Menk and Sonia Sledge, Bolton & Menk

3:45-4:45

Real Life Ethic Accusations Facing Engineers

This will be an audience participation presentation. No hypotheticals, nothing made up and all actual engineering specific cases where an ethics charge has been made against an engineer. You, the audience, will review the specifics of the case, determine amongst yourselves the ethics of the case and make your conclusions – ethical or unethical? But that's where the subjectivity ends, because after you have reached a conclusion, we will share with you what the real-life conclusions were.

Presenter: Program will be moderated by ACEC Iowa Board Member

ACEC ENGINEERING *Excellence* AWARDS

5:00 -8:00

Engineering Excellence Reception followed by Banquet

EE Winner Videos will be shown at the banquet

Thursday, May 18, 2023

8:00-12:00 TEN TIPS TO EMPLOYEE RETENTION

If “The Great Resignation” taught us anything, it is to start listening to our employees and create “The Great Retention” strategy. In order to increase employee retention, we have to take strategic actions to keep employees motivated so they want to stay. For A&E firms, losing talent is not only costly to project quality, morale, recruitment, and training. It can also lead to the loss of strategic clients; forever! The Great Resignation to The Great Retention workshop explores why people leave, stay, and how to create a “Great Retention” program for your firm. The Ten Tips to Employee Retention are ten practical tips to creating a culture of staying.

In this workshop you will learn:

- The Whys of Why People Leave
- The Whys of Why People Stay
- How to Build a Culture of Staying
- Ten Tips to Employee Retention that includes:
 - o Stay Interview
 - o Remote Leadership
 - o Empowerment One-On-Ones

Presenter: Jeff Gross, Chief Empowerment Officer, Headquartered in Los Angeles, CA, Gro Nova. Gro-Nova has been helping companies, non-profits and individuals reach their full potential.