

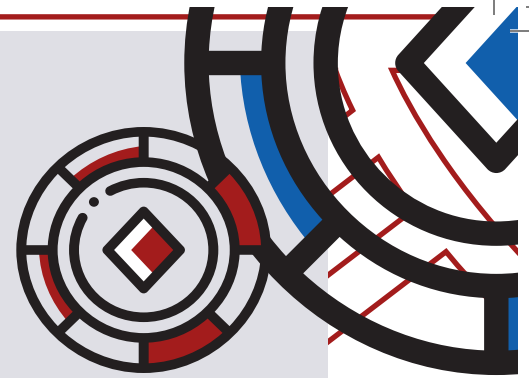
7ST ANNUAL

ASCE IDAHO

CIVIL ENGINEERING CONFERENCE

Presented By





SOUTHERN IDAHO SECTION OFFICERS:

Past-President: Grae Harper, PE - SPF Water Engineering

President: Jesse Christensen, EI - HECO Engineers

President Elect/Treasurer: Michelle McDonald, EI - TO Engineers

Vice President: Lauren Nuxoll, EI - Kittelson & Associates, Inc.

Secretary: Dan Zimmerman, PE - STRATA, Inc.

SNAKE RIVER BRANCH OFFICERS:

President: Aaron Swenson, PE - Forsgren Associates, Inc.

Vice President: Tyson Knudsen, PE - Valmont Industries

Secretary-Treasurer: Nathan Harris, Ph.D, PE - Harrison Engineering

YOUNGER MEMBER FORUM OFFICERS:

Past-President: Aimee Loudenslager, PE - Ada County Highway District

President: Scott McKinney, PE - POWER Engineers

President Elect/Treasurer: Lucas Marsh, EI - Terracon Consultants, Inc.

Vice President: Nawid Mousa, EI - HECO Engineers

Secretary: Will Rice, EI - TO Engineers

BOISE STATE UNIVERSITY FACULTY ADVISOR:

Deb Mishra, Ph.D

IDAHO STATE UNIVERSITY FACULTY ADVISOR:

Mustafa Mashal, Ph.D, PE, SECB, CPEng, IntPE(NZ), CMEngNZ, M.ASCE

BRIGHAM YOUNG UNIVERSITY-IDAHO FACULTY ADVISOR:

Jim Lawrence, Ph.D, PE



TABLE OF CONTENTS

Schedule of Events	4
Conference Distinguished Speaker	6
Banquet Key Note Speaker	7
Presentations	8
Sponsors	16
Vendor Map	18
2019 Outstanding Civil Engineering Achievement Awards Banquet	19
Boise State University Student Union Map	20



SCHEDULE OF EVENTS

TUESDAY, MARCH 19TH 2019

7:15 AM	Check-In and Breakfast
8:00 AM - 9:00 AM	Opening Remarks
9:00 AM - 9:15 AM	Exhibitor Break
9:15 AM - 10:15 AM	Concurrent Sessions #1
10:15 AM - 10:30 AM	Exhibitor Break
10:30 AM - 11:30 PM	Concurrent Sessions #2
11:30 AM - 12:30 PM	Lunch
12:30 PM - 1:30 PM	Concurrent Sessions #3
1:30 PM - 1:45 PM	Exhibitor Break
1:45 PM - 2:45 PM	Concurrent Sessions #4
2:45 PM - 3:00 PM	Exhibitor Break
3:00 PM - 4:00 PM	Concurrent Sessions #5
4:00 PM - 6:00 PM	Casino Night Happy Hour
6:00 PM - 7:30 PM	OCEA Awards Banquet

WEDNESDAY, MARCH 20TH 2019

8:00 AM	Breakfast
8:30 AM - 9:30 AM	Engineering Ethics
9:30 AM - 9:45 AM	Exhibitor Break
9:45 AM - 10:45 AM	Concurrent Sessions #6
10:45 AM - 11:00 AM	Exhibitor Break
11:00 AM - 12:00 PM	Concurrent Sessions #7
12:00 PM	2019 ASCE SIS Annual Conference Adjourns

TIME	Hatch Ballroom A	Hatch Ballroom B	Hatch Ballroom C
TUESDAY, MARCH 19TH 2019			
Concurrent Sessions #1 9:15 AM - 10:15 AM	Stibnite Gold Project - In-Tunnel Fish Passage Feasibility Design	Geologic Hazards in Idaho	Rehabilitation Measures for Flexible Pavements Constructed Over Expansive Soil Deposits - An Idaho Case Study
Concurrent Sessions #2 10:30 AM - 11:30 AM	Geofoam 101	High-Early Strength Concrete with Polypropylene Fibers in Closure Pours	Cloverdale Bridge - Expanded Details
Concurrent Sessions #3 12:30 PM - 1:30 PM	ACHD's Radar Speed Feedback Sign Study	Boise River Floodplain Modeling - An Eagle Island Case Study	Visual Communicating Transportation Challenges and Solutions
Concurrent Sessions #4 1:45 PM - 2:45 PM	Washington State Route 520 Floating Bridge - Anchors and Eastside Landings	PROJECT OF THE YEAR < \$10 MILLION <ul style="list-style-type: none"> • Manning Crevice Bridge Replacement • Potato Productions of Idaho - Industrial Pretreatment 	Engineering the Future
Concurrent Sessions #5 3:00 PM - 4:00 PM	Paving the Way for Stibnite Gold Restoration and Operations	Rapid Cost-Effective Bridge Replacement Technology: Geosynthetic Reinforced Soil-Integrated Bridge System	Structural and Earthquake Engineering Research
WEDNESDAY, MARCH 20TH 2019			
Concurrent Sessions #6 9:45 AM - 10:45 AM	Wildlife Overpass/ Underpass Crossings	2-D Hydraulic Modeling: Cove Road Bridge Replacement Project	Rigid vs. Flexible Pipe Design & Installation
Concurrent Sessions #7 11:00 AM - 12:00 PM	Reclaimed Water & Onsite Reuse	Application of Bio-stimulated Calcite Precipitation to Stabilize Expansive Soils: Laboratory and Field Trials	Seismic Performance of Bridge Columns Connected with Grouted Couplers in Idaho

CONFERENCE DISTINGUISHED SPEAKER



Elaine Clegg

City of Boise Council President Pro Tem

Elaine was elected to the Boise City Council in 2003 and re-elected in 2007, 2011 and 2015. Elaine currently serves as City Council President Pro Tem. She served as President of the Council in 2007-2009 and from 2016-17.

Elaine has advocated for transportation innovative improvements. During her tenure the City has adopted a Master Streets Map to guide context sensitive roadway design, developed a roadway connectivity measurement, and completed a full Comprehensive Plan update. She has also been a leader in completing the integration of transportation and land use via corridor and new arterial master plans, and extension of the bicycle and pedestrian network citywide. The State Street corridor has been planned as the region's first Bus Rapid Transit corridor. Clegg has twice brought initiatives to provide additional funding for more and better transit service resulting in longer hours of services and improved frequency of service on Boise highest ridership routes. Additionally, she is focused on the update of the various City zoning code sections currently underway.

Elaine volunteered for many years with Girls Scouts, Little League, Y-Ball, as and Art Mom and has served on numerous local non-profit boards. Elaine has a Bachelor of Arts degree (Visual Arts) from Boise State University. She and her husband Brett have five children and ten grandchildren.



BANQUET KEY NOTE SPEAKER



Dr. Kancheepuram Gunalan, PH.D, PE, D.GE, F.ASCE.

ASCE 2019 President-Elect

Dr. Gunalan is ASCE's 2019 President-Elect and currently works as the Vice President of Alternative Delivery for AECOM based in Salt Lake City, Utah. His passion for ASCE shows through his many leadership roles:

- Governor of Geo Institute (2014-Present)
- Steering Committee Member for the 2017 ASCE India Conference
- Region 8 Director (2009-12)
- Region 8 Governor (2005-07)
- Utah Section President (2002-03)
- Texas Section High Plains Branch President (1992).

In 2016, Dr. Gunalan received the Professional Practice Ethics and Leadership Award. He is proud to be a civil engineer and passionate about the profession. His message now is: "What can I do to help?"

Dr. Gunalan has been married 35 years to Duru and has a son (Kabilar) and a daughter (Pallavi) both pursuing Biomedical Engineering. Dr. Gunalan loves to read, travel, meet people, and learn about various cultures.



PRESENTATIONS

(Listed in Alphabetical Order)

<p>2-D Hydraulic Modeling: Cove Road Bridge Replacement Project</p>	<p>Presented By: Steve Holt, PE and Will Rice, EI (T-O Engineers)</p> <p>Bio: Steve Holt has over 28 years of experience at T-O Engineers in planning, design, construction and project management of water resources engineering projects. Specific areas of expertise include bridge hydraulics, hydrology, floodplain analysis and permitting, and scour protection.</p> <p>Will Rice leads advanced hydraulic modeling production at T-O Engineers and has diverse experience in hydraulic analysis and design; modeling of riverine environments, bridges and culverts; hydrology, floodplain permitting, FEMA submittals, storm drainage, and construction observation.</p> <p>Summary: Washington County, Idaho and the City of Weiser experience repetitive flooding and flood related damage arising from the Weiser River. The Local Highway Technical Assistance Council and Washington County teamed on a federally funded project to replace the Cove Road Bridge over the Weiser River to address flood related issues. Local information suggested flooding patterns near the bridge are inherently complex. A two-dimensional hydraulic model was created using SRH-2D/SMS software to analyze the bridge and nearby floodplain. The model results are presented and compared to a one-dimensional hydraulic model.</p>
<p>ACHD's Radar Speed Feedback Sign Study</p>	<p>Presented By: Aimee Loudenslager, PE (Ada County Highway District)</p> <p>Bio: Aimee Loudenslager is a traffic engineer at the ADA County Highway District. She graduated from the University of Idaho in 2011.</p> <p>Summary: In 2018, ACHD purchased 50 radar speed feedback signs for installation throughout the county. These signs have become popular through the United States, but there is limited available literature on best practices and documented effectiveness. ACHD endeavored to thoroughly study the efficacy of these devices by collecting before and short term and long term after speed data both at and downstream of the installation sites. The data was analyzed and correlated with site specific features.</p>



<p style="text-align: center;">Application of Bio-stimulated Calcite Precipitation to Stabilize Expansive Soils: Laboratory and Field Trials</p>	<p>Presented By: Bhaskar Chittoori, Ph.D., P.E. (Boise State University)</p>
	<p>Bio: Dr. Bhaskar Chittoori is an associate professor in the Civil Engineering Department at Boise State University. He is also the director of the Sustainable and Resilient Geotechnical Engineering Research Laboratory at Boise State. His research focusses on solving complex geomechanics issues related to problematic clayey soils. He is the founding president of the ASCE’s Southern Idaho Geo-Institute chapter. He also serves as a member of various subcommittees in Transportation Research Board (TRB) and is the vice-chair of the ASCE GI’s Sustainability in Geotechnical Engineering committee. He is also the associate editor for the ASCE Journal of Materials in Civil Engineering.</p>
	<p>Summary: The use of chemical additives to stabilize expansive soils is a common practice. Several occurrences of premature failures in chemically treated subgrades have launched engineers in search of sustainable stabilization alternatives. Microbial Induced Calcite Precipitation (MICP) is a bio-cementation technique that could be a potential solution to this problem. This presentation covers the results of an attempt to improve the behavior of expansive soils using MICP in the field.</p>
<p style="text-align: center;">Boise River Floodplain Modeling - An Eagle Island Case Study</p>	<p>Presented By: Ron Manning, PE, CFM and Karl Gebhardt, PE, PH (SPF Engineering)</p>
	<p>Bio: Ron Manning has 11 years of experience in the water resources engineering field and currently works at SPF Water Engineering, providing consulting services including municipal drinking water design, FEMA permitting & appeals, and hydraulic analyses for clients along the Boise River. Karl Gebhardt, Owner of Resource Systems Inc. and ASCE Life Member has over 40 years of experience working in the environmental engineering field. With an expertise in flood modeling, floodplain modification, wetland creation and enhancement, as well as hazardous materials, he has devoted his career to providing environmental assistance. Karl has completed successful flood mapping revisions on the Boise River, Payette River, Five Mile Creek, Indian Creek, and Hulls Gulch, just to name a few.</p>
	<p>Summary: This presentation covers current and historical hydraulic floodplain modeling efforts along the Boise River. Discussion will include case studies, including an in-depth look at Eagle Island and how risk of flooding has impacted development and emergency preparedness. This presentation will go over the benefits of 2D modeling along the Boise River as well as the uncertainties.</p>

Cloverdale Bridge - Expanded Details	Presented By: Shanon Murgoitio, PE (Idaho Transportation Department)
	Bio: Shanon Murgoitio grew up in Coeur d'Alene Idaho. She earned an engineering degree from the University of Idaho and has worked with Transportation Departments ever since. Shanon currently works at the Idaho Transportation Department in the Bridge Design Section.
	Summary: The Cloverdale Bridge was damaged in a tragic accident last year. Come hear about the decision to close the bridge and the discussion and design of building a new bridge. This presentation will go into more details of the structural aspects of the existing and new bridge.
Engineering Ethics	Presented By: George Murgel, PE, Ph.D (HECO Engineers)
	Bio: George Murgel has over 40 years of experience in Civil and Environmental Engineering including consulting, teaching, managing and designing. He currently provides project management and design services for HECO Engineers and is the current chair of the Examination of Professional Engineers Committee.
	Summary: Ethics is integral to all decisions, designs, and services performed by civil engineers. Not only the public trust but also their lives, safety, and welfare depend on professional engineers' efficient, safe, and economical performance of their duties. Engineering is consistently ranked by the general public in the U.S. as one of the top five ethical professions. Come join George Murgel, P.E., Ph.D. for a discussion on ethics, including its origin, evolution, and practical application.
Engineering the Future	Presented By: Kancheepuram "Guna" Gunalan, PH.D, PE, D.GE, F.ASCE. (ASCE President-Elect)
	Bio: Dr. Gunalan is ASCE's 2019 President-Elect and currently works as the Vice President of Alternative Delivery for AECOM based in Salt Lake City, Utah.
	Summary: All around the world, engineers are pushing the limits of ingenuity and innovation in unexpected, imaginative, and amazing ways. ASCE's grand dream is for civil engineers to be global leaders in building a better quality of life for mankind. In this presentation, President-Elect Kancheepuram "Guna" Gunalan will share how this dream can be achieved as well as describe the ways in which each engineer can contribute. As the oldest engineering society in the United States, ASCE represents 150,000 members in 177 countries. ASCE stands at the forefront of a profession that plans, designs, constructs, and operates society's economic and social engine - the built environment - while protecting and restoring the natural environment.
Geofoam	Presented By: Terry Meier (ACH Foam)
	Bio: Terry Meier has 38 years of experience with various types of foam products including polyisocyanurate foam for Panelera Inc. and expanded polystyrene, extruded polystyrene, and polyethylene foams for Advance Foam Plastics / ACH Foam Technologies.
	Summary: Discover the concept of Geofoam, the history, design considerations, installation and long-term performance. Numerous local projects will be discussed.

<p>Geologic Hazards in Idaho</p>	<p>Presented By: Zach Lifton, PhD., PG (Idaho Geological Survey)</p>
	<p>Bio: Zach Lifton has experience working as a geologic hazards consultant, specializing in seismic hazard assessments and landslide evaluations of pipelines. His Ph.D. research at Georgia Tech focused on GPS geodesy and neotectonics in eastern California and western Nevada.</p>
	<p>Summary: As Idaho's population and infrastructure grow, it is increasingly important to understand the diverse geology and natural hazards within our state. Historical events and new research, mapping, tools and databases developed by the Idaho Geological Survey will be presented.</p>
<p>High-Early Strength Concrete with Polypropylene Fibers in Closure Pours</p>	<p>Presented By: Chris Clauson (Idaho State University)</p>
	<p>Bio: Chris Clauson is a graduate student at Idaho State University working on his master's degree in Civil Engineering. Chris has been involved in researching the use of high early strength concrete in bridge connections and helping to develop and test concrete mixes.</p>
	<p>Summary: Typical Accelerated Bridge Construction projects utilize Ultra-High-Performance Concrete to connect precast bridge deck girders. Discover the results of the experimental and numerical research project to determine the effectiveness of alternate concrete mix designs using High-Early Strength and polypropylene fibers to secure the connections.</p>
<p>Paving the Way for Stibnite Gold Restoration and Operations</p>	<p>Presented By: Braydan DuRee, PE (GeoEngineers), Dave Meldrum, PE (Parametrix), and Jordan Nielsen, P.G. (Midas Gold Idaho)</p>
	<p>Bio: Braydan DuRee is a Senior Geotechnical Engineer with GeoEngineers, Inc. and has experience in geotechnical investigation and design for roadways, bridges, retaining walls, temporary shoring, seismic designs, pavement, slope stability, and landslides.</p>
	<p>Dave Meldrum is a project manager at Parametrix with over 17 years of experience in transportation projects. Parametrix frequently uses Dave on more unusual and complex projects due to his due diligence, dedication to quality, and ability to adapt quickly.</p>
	<p>Jordan Nielsen is the Senior Hydrogeologist at Midas Gold and has 15 years of experience in geology, hydrogeology, and permitting for mining projects in the U.S. His experience includes hydrogeologic and geologic data review and analysis, construction monitoring and management of mine related features.</p>
	<p>Summary: Developing a dedicated access route through remote mountainous terrain the project designers plan to use 36 miles of existing forest service roads and pioneering 16 miles of new road. Challenges of the project including demanding usage requirements, and numerous hazards. The design approach and current project status will be discussed.</p>



<p>Rapid Cost Effective Bridge Replacement Technology: Geosynthetic Reinforced Soil-Integrated Bridge System</p>	<p>Presented By: Alan Cukurs, PE (J-U-B Engineers, Inc.)</p> <hr/> <p>Bio: Alan Cukurs is the principle bridge engineer at J-U-B Engineers in Boise Idaho. Alan has designed bridges and various types of structures for 23 years throughout the United States and Canada. He has been designing bridges in Idaho for 17 years and has been a leader in bringing new bridge technology to Idaho, specifically GRS-IBS Bridge technology.</p> <hr/> <p>Summary: Come find out about the general application and design of this technology, in addition to the construction of the first two bridges in Idaho using this method. The presentation will cover cost and benefits, lessons learned and addressing concerns of agencies and owners.</p>
<p>Reclaimed Water & Onsite Reuse</p>	<p>Presented By: Dave Lowe (Lowridge Onsite Technologies, LLC)</p> <hr/> <p>Bio: Dave Lowe earned a Bachelor of Science degree from Cal-Poly, San Luis Obispo, CA. He has over 25 years experience in the onsite sewage industry. His background includes pumping septic tanks, installing onsite systems, is a state licensed Onsite Sewage Designer in Washington, and has developed and manufactures wastewater treatment devices. Dave has supported the industry by serving as President of the Washington Onsite Sewage Association (WOSSA), member of the Technical Advisory Group of Washington Department of Health, member of the Onsite Rule Revision Committee for Washington State, an instructor at the Northwest Onsite Training Center, and owner of Lowridge Onsite Technologies, LLC.</p> <hr/> <p>Summary: The traditional water reuse process requires wastewater to be collected in a central location, treated to class “A” or “B” and then transported somewhere else to be utilized. By collecting and treating reclaimed water locally and providing value added reuse, like small scale local farming, several societal and ecological solutions are realized: reduced carbon footprint, reduced infrastructure, locally sourced organic food, reduced water footprint, local jobs, the elimination of food desserts. The purpose of this presentation is to show a simple, safe, and effective method for accomplishing all the objectives.</p>



<p style="text-align: center;">Rehabilitation Measures for Flexible Pavements Constructed Over Expansive Soil Deposits - An Idaho Case Study</p>	<p>Presented By: Deb Mishra, Ph. D. (Boise State University)</p>
	<p>Bio: Debakanta (Deb) Mishra is an Assistant Professor in the Civil Engineering Department at Boise State University in Boise, Idaho. His research interests are in the generic areas of pavement and railroad engineering with particular emphasis on transportation geotechnics and material characterization. At Boise State Dr. Mishra teaches undergraduate and graduate-level courses in pavement engineering, railroad engineering, and mechanics of materials. Since joining Boise State, Dr. Mishra has graduated six master’s students with thesis-based research and has secured research funding worth more than \$1.4 million.</p>
	<p>Summary: Pavement sections constructed over expansive soil deposits often exhibit excessive distresses due to volume changes in the underlying soil strata. A pavement section near the western border of Idaho has experienced recurrent damage due to volume changes in the underlying expansive soil layer. A recent research study at Boise State University involved extensive laboratory characterization of the expansive soil deposit to study the mechanism contributing to the recurrent surface heave. A geosynthetic system comprising geocells was identified as a suitable alternative. This presentation will cover details of the laboratory testing, model development, and field construction efforts.</p>
<p style="text-align: center;">Rigid Vs. Flexible Pipe Design and Installation</p>	<p>Presented By: Mike Blackham, P.E., and Troy Banks, P.E. (Oldcastle Infrastructure)</p>
	<p>Bio: Mike Blackham is the Pacific Northwest Regional Engineer for Oldcastle infrastructure. He has 13 years of experience in design and management of precast concrete structures and has worked with multiple DOT’s, county and highway district engineers, and engineering firms.</p> <p>Troy Banks has 14 years of experience in design and consulting and is the Engineering manager for Oldscastle and the current Regional Engineer of the Rocky Mountain Region. He designs a multitude of precast products; including pipe, box culverts, 3-sided bridges, power, communication, and utility vaults.</p>
	<p>Summary: Learn about the design, construction methods, and proper inspection of rigid and flexible drainage pipes. Additionally, the roles of owners, engineers, constructors and inspectors and their respective liabilities will be discussed.</p>
<p style="text-align: center;">Seismic Performance of Bridge Columns Connected with Grouted Couplers in Idaho</p>	<p>Presented By: Arya Ebrahimpour, Ph.D., P.E. (Idaho State University)</p>
	<p>Bio: Arya Ebrahimpour is a professor in the Department of Civil and Environmental Engineering and the director of Master of Science program in Civil Engineering at Idaho State University. He teaches courses in the structural engineering and engineering mechanics and his research interests include structural vibrations, seismic analysis of bridges, and applications of advanced materials in structural engineering.</p>
	<p>Summary: In Accelerated Bridge Construction, one way to connect prefabricated concrete columns is by using grouted steel bar couplers. Currently the use of the couplers is limited to one state and one application. Research and performance results are discussed with respect to the couplers used in a range of connection points under seismic loading.</p>

Stibnite Gold Project - In-Tunnel Fish Passage Feasibility Design	Presented By: Gene Bosley, PE and Kevin Jensen, PE (Midas Gold Idaho and McMillen Jacobs Associates)
	Bio: Gene Bosley, Senior Civil Engineer at Midas Gold, has 19 years of experience in civil/water resources engineering for mining and transportation projects in the U.S. and Latin America. Kevin Jensen is a water resources design engineer and project manager at McMillen Jacobs Associates and has worked on a number of fisheries and aquaculture design projects over the past 10 years.
	Summary: As part of the mine development plan a nearly mile-long tunnel will divert the East Fork South Fork of the Salmon River around the site. A project summary will discuss alternatives analysis and the computational fluid dynamics models used to design the hydraulics.
Structural and Earthquake Engineering Research	Presented By: Mustafa Mashal, Ph. D., PE, SECB, CPEng, IntPE(NZ), CMEngNZ, M.ASCE (Idaho State University)
	Bio: Mustafa Mashal is an Assistant Professor of Structural and Earthquake Engineering in the Department of Civil and Environmental Engineering at Idaho State University. Dr. Mashal has authored over 40 publications and has over 10 years of consulting experience in the United States, New Zealand, and Afghanistan.
	Summary: Idaho State University has expanded its research facility with the addition of a new large-scale structural testing. A presentation of current research projects in structural and earthquake engineering including structural concrete insulated panels and titanium alloy rods.
Visually Communicating Transportation Challenges and Solutions	Presented By: Steven Rhyne (Kittelson & Associates, Inc.)
	Bio: Steven Rhyne is a visual communication professional at Kittelson & Associates, Inc. He has over 20 years of experience creating a variety of visual content in the transportation and engineering field using GIS and 3D visualization.
	Summary: We live in age of always being connected. Our smart devices are plugged into the world and we are fed information minute-by-minute. So how can we leverage this technology to communicate the benefits and challenging aspects of our project? This presentation will show and demonstrate some of the tools we use for our projects to help our communities better understand our projects.



<p>Washington State Route 520 Floating Bridge - Anchors and Eastside Landings</p>	<p>Presented By: Whitney Ciani, PE and Benjamin Upsall, PE (GeoEngineers)</p>
	<p>Bio: Whitney is a senior geotechnical engineer whose 11 years of experience has focused on project management, construction monitoring, geotechnical explorations and geotechnical design. Whitney has specialized experience in slope stability analysis, axial and lateral pile design, pile drivability analysis, ground improvement design, shoring design, characterization of soil properties and installing and monitoring instrumentation for geotechnical investigations.</p> <p>Ben is a licensed geotechnical engineer in Washington with 15 years of professional geologic and geotechnical experience. He is skilled in geotechnical engineering design of elevated structures; geotechnical engineering design; seismic design; and geotechnical aspects of urban and complex environmental engineering projects.</p>
	<p>Summary: This presentation presents a case history of the geotechnical challenges of designing the SR520 Floating Bridge & Landings Replacement Project in Seattle, Washington. The SR520 floating bridge, which is a major lifeline between Seattle and Bellevue, is the new longest floating bridge in the world. The geotechnical design aspects for the anchors and bridge foundations are discussed in detail in this presentation.</p>
<p>Wildlife Overpass/Underpass Crossings</p>	<p>Presented By: Chad Kitchen (Contech Engineered Solutions)</p>
	<p>Bio: Chad Kitchen is a Regional Bridge Consultant for Contech Engineered Solutions and is responsible for promotional and technical support in Utah and southern Idaho. Chad has experience on the design and construction of precast concrete and corrugated steel arch bridges and has been involved in a variety of bridge projects with DOTs, local governments, and private developers.</p>
	<p>Summary: An overview of the solutions and discussion regarding the details that contribute to the selection of wildlife passageways. Additionally, programs and design methodologies being implemented by the Intermountain West DOT's will be presented.</p>



SPONSORS

HOSTED BY



BOISE STATE UNIVERSITY

COLLEGE OF ENGINEERING
Department of Civil Engineering

AWARDS BANQUET SPONSOR



POWERENGINEERS



Stanley Consultants



BOSWELL
ASPHALT
PAVING SOLUTIONS INC.

A M E R I C A N
GEO
T E C H N I C S

CASINO NIGHT HAPPY HOUR SPONSOR



LUNCH SPONSOR



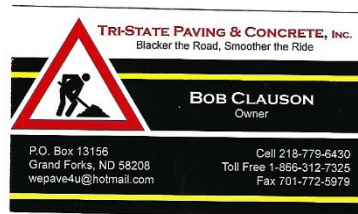
BREAKFAST SPONSOR



GRAPHICS AND PROGRAM SPONSOR

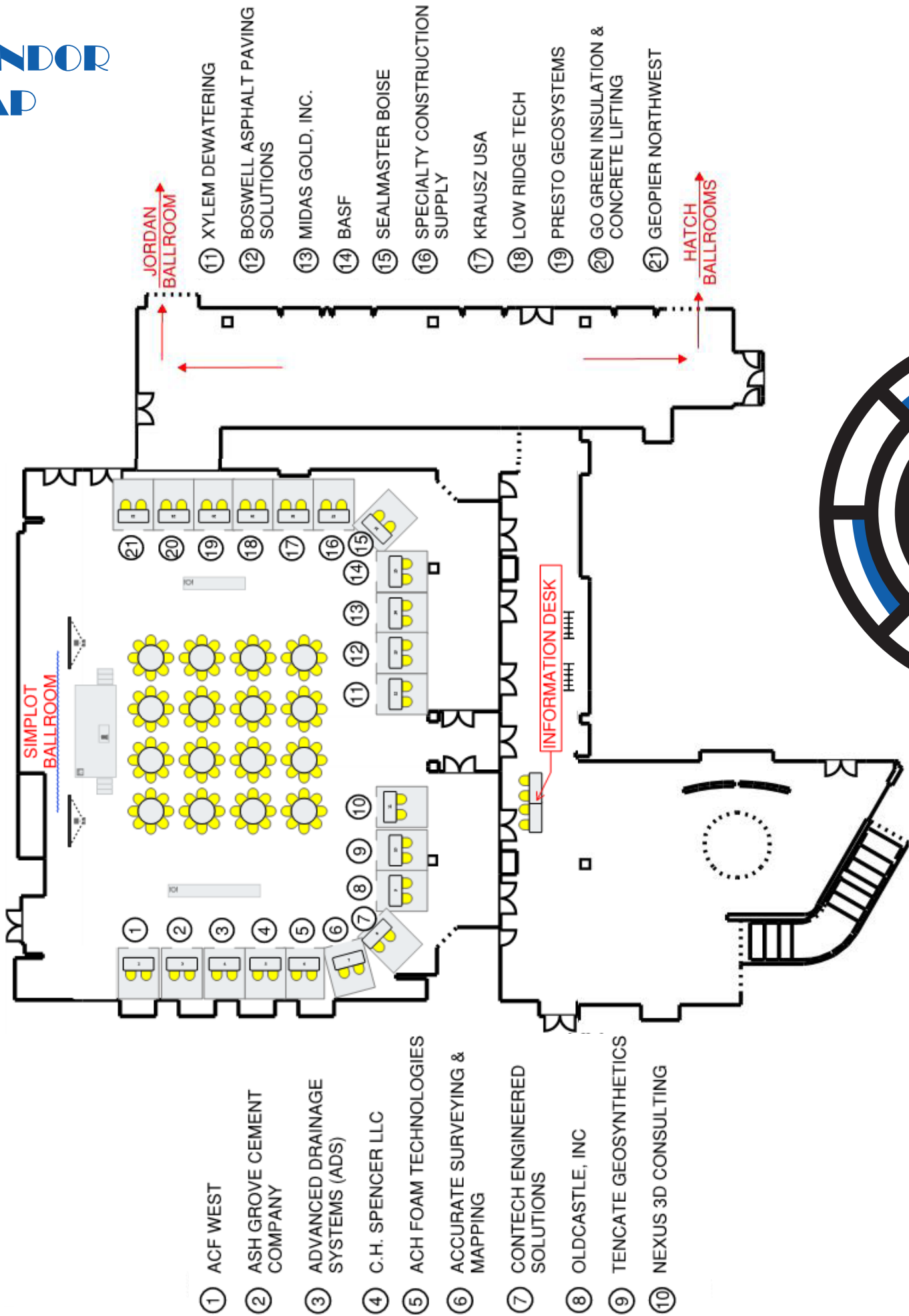


STUDENT SPONSOR



COFFEE AND SNACK SPONSOR







2019 OUTSTANDING CIVIL ENGINEERING ACHIEVEMENT AWARDS BANQUET

March 19TH 2019

Boise State University

Welcoming Address

Michelle McDonald, EI - SIS President-Elect/Treasurer

Young Member Forum Update

Will Rice, EI - YMF Secretary

Boise State Student Chapter Update

Lauren Nuxoll, EI - Practitioner Advisor

Idaho State Student Chapter Update

Blake Kleffner - ISU Student Chapter President

Brigham Young-Idaho Student Chapter Update

Chasen Humphries - BYU-I Student Chapter President

Keynote Speaker

Dr. Kancheepuram Gunalan, PH.D, PE, D.GE, F.ASCE.

Project of the Year Under Ten Million

TBA

Project of the Year Over Ten Million

WPC Phase 1 Phosphorus Removal Project (City of Pocatello)

Southern Idaho Section Young Engineer of the Year

Grae Harper, PE (SPF Water Engineering)

Southern Idaho Section Engineer of the Year

Mustafa Mashal, Ph. D., PE, SECB, CPEng, IntPE(NZ), CMEngNZ, M.ASCE
(Idaho State University)



BOISE STATE UNIVERSITY STUDENT UNION MAP



Second Floor

Second Floor

Restrooms Elevators Stairs Lactation

- Ah Fong Room 1
- Alexander Room 2
- Art Gallery
- Barnwell Room 3
- Bergquist Lounge
- Boyington Room 4
- Brink Room 5
- Cataldo Room 6
- Chief Joseph Room 7
- Farnsworth Room 8
- Fisher Room 9
- Foot Room 10
- Hatch Ballroom 13
- International Student Services
- Jordan Ballroom 15
- Multicultural Student Services
- Shipman Room 19
- Simplot Ballroom 18
- Student Diversity Center
- Student Involvement & Leadership Center
- Student Union Administration
- Trueblood Room 21
- Women's Center