

ALASKA CAPITAL ENGINEERS

MARCH 2020



Upcoming Events

Luncheon: March 11th
At 12:00 pm

Location: AEL&P
Conference Room

Speaker: Naomi Hobbs

Topic: Captain William
Henry Moore Bridge –
RCC Pavement

March Luncheon

Catered by Breeze In

\$20 per person

\$10 under 35 years old

Inside This Issue

- 1 Upcoming Events
- 2 Officer Message
- 3 Luncheon Summary
- 4 Dale Nelson Memorial Fund
- 5-8 Job Postings
- 9 MATHCOUNTS & Dream Big
- 10 ASCE News Brief
- 11 Information Shorts
- 12-13 ACE Sponsors
- 14 Officer Information

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Juneau Branch – American
Society of Civil Engineers

**Contact Ethan Roemeling to
Submit ideas for luncheon**

Speakers at:
ethanroemeling@pdceng.com

ASCE Juneau Vice President Message

Dear Alaska Capital Engineers,

Thank you to all who participated in this year's Alaska Professional Design Council (APDC) Legislative Fly-In where the 2017 Alaska Infrastructure Report Card was presented to lawmakers. As Alaska legislators address budget challenges, the Alaska Report Card – developed for Alaska, by Alaskans – demonstrates the importance of infrastructure investment. As we speak volunteers are gearing up to update the report card for the revised 2021 release. If you would like more information on the Report Card or want information on how to help contribute visit www.infrastructurereportcard.org/alaska.

Thank you to everyone who turned out for this year's ASCE Awards and Scholarship Banquet and congratulations to the winners of ASCE Juneau Branch Project of the Year DOWL's Skagway – Replace Captain William Henry Moore Bridge project and the Engineer of the Year Erich Schaal, P.E. with CBJ's Docks and Harbors. Also thank you to all the engineering firms who donated to the scholarship fund. We are still accepting applications for this year's scholarship award so reach out to those aspiring engineers and tell them to apply. If you need more information about how to apply for the scholarship, please contact one of the local Juneau Branch Officers.

With the ski season wrapping up and construction season not quite here this is the perfect time to attend ASCE Juneau Branch's March Luncheon. This month's luncheon will be happening on March 11th at the AEL&P conference room from 12pm-1pm and will feature an in depth presentation about this year's Project of the Year winner Skagway – Replace Captain William Henry Moore Bridge presented by DOWL's own and our Emeritus Naomi Hobbs, P.E. We hope to see you all there!

Sincerely,

Lucas Chambers, P.E

ASCE Juneau Branch Vice President

February Luncheon: Project of the Year



Skagway—Replace Captain William Henry Moore Bridge Project

BY Naomi Hobbs

Wednesday March 11th, 12:00pm at the AEL&P Conference Room

Introduction

The Klondike Highway extends northeast from Skagway, beyond the U.S. Customs checkpoint at Mile 6.8, up to White Pass Summit at Mile 14.3 (elevation 3,292 feet), and continues toward the border with British Columbia, Canada at Mile 14.7. Construction of the CWHM Bridge started in 1975 to span a gorge approximately 200 feet wide and 150 feet deep and William Moore Creek at the bottom of the gorge. The existing bridge structure is 28-foot wide from face-of-rail to face-of-rail and is approximately 300 feet long. The CWHM Bridge is a single span, cable-stayed bridge that consists of a two-lane roadway, 2-foot shoulders and a design loading of MS22.5. Despite retrofits in 1987 and 1992 to accommodate heavy ore haul trucks, the existing structure requires weight-restrictions.

Why Roller Compacted Concrete?

A previous conceptual alternatives analysis was performed as part of the Replacement Analysis Report (RAR) (DOWL, 2014). Numerous alignment and structural alternatives were evaluated based on life cycle cost, operational and maintenance issues, constructability, and other considerations. The Roller Compacted Concrete (RCC) alternative is consistent with the recommendations of the RAR which determined this to be the most feasible and cost-effective of the build alternatives.

RCC is a zero-slump, highly compacted, stiff concrete that is generally compacted using vibratory rollers. The composition of RCC includes water, cementitious and pozzolanic materials, and fine and coarse aggregates. Join us at the upcoming luncheon to learn more about RCC!

Support the Endowment of the Dale Nelson Memorial Civil Engineering Scholarship Fund



Dale Albin Nelson, PE, F.ASCE 14 December 1944 – 01 January 2019

Growing up in Washington, Dale worked at his parents’ logging and sawmill business as well as at his grandparents’ cattle ranch. Completing his degree in Civil Engineering, Dale realigned his dream and moved to Alaska, where he worked for the U.S. Army Corps of Engineers at Fort Richardson. Soon after, Dale married Elaine, and they were blessed with two children: Garth Nelson, a registered civil engineer, and Lesa Zimnawoda, an environmental scientist.

Committed to strong family values, Dale was a strong role model for Anchorage youth, teaching positive work ethic, compassion, and community involvement, and a stalwart proponent of young engineering professionals, providing powerful mentorship and advocacy. He distinguished himself as an active and influential member of ASCE, assuming leadership responsibility within ASCE beginning in 1971, serving all positions within the Board of Directors of the Anchorage Branch and the Alaska Section, and as a Regional Governor and Director. In October 1999, Dale was elevated to the ASCE Fellow status and he became a life member in 2009. Throughout his career, Dale was admired and well respected by the engineering community he so passionately served.

Dale Nelson Memorial Civil Engineering Scholarship Fund

In his honor and memory, Dale’s family established the Dale Nelson Civil Engineering Memorial Scholarship, which is currently gathering funds through the University of Alaska Foundation in a holding account. Current funding has reached \$22,000, and it is hoped that the \$25,000 level needed for an endowed scholarship will be reached soon

Your Financial Support

If you are able to contribute, you may do so online (<https://engage.alaska.edu/>, select "Other" as designation, and write "Dale Nelson Memorial Scholarship Fund" in the comment section), by check (checks payable to “University of Alaska Foundation” and write "Dale Nelson Memorial Scholarship Fund" in the memo section), or by wire transfer (contact the University of Alaska Foundation at 907-450 -8030 or foundation@alaska.edu for details).

Checks may be mailed to:

University of Alaska Foundation
 2025 Yukon Drive
 PO Box 755080
 Fairbanks, AK 99775

University of Alaska Foundation
 1815 Bragaw St., Ste.203
 Anchorage, AK 99508



Tax ID # 23-7394620

Deputy Port Engineer

Full-Time Position

Position open until filled



This is the first level registered professional engineer (PE) or architect. Work is performed under general direction. Independently performs most assignments with instruction as to the desired outcome. Receives instructions on specific assignment objectives, complex features and possible solutions. Provides professional management of engineering, architectural and construction projects. May lead the work of lower level engineering/architectural staff.

Typical responsibilities include the following:

Assists in the preparation of and/or prepares drawings, specifications, cost estimates, reports, contracts and requests for proposals (RFPs); utilizes professional seal where appropriate.

- Provides technical architectural, engineering, and landscape architecture services and/or support for projects that construct new, or renovate or modify existing, CBJ owned or operated facilities.
- Assists with and/or conducts negotiations related to professional service contracts.
- Reviews and/or creates permit applications, including plans and drawings and specifications for compliance with regulatory codes and standards.
- Serves as a CBJ representative for management of multiple planning, design and construction projects.
- Manages and conducts project activities to ensure CBJ's interests are protected.
- Continuously monitors and inspects construction work quality, workmanship, and material selection to ensure compliance with contract documents; identifies deficiencies; recommends corrective actions; coordinates the resolution of issues between parties.
- Issues Stop Work orders, Notices of Defective Work and imposes other contractual mechanisms to contractors not complying with the contract documents.
- Monitors contractor's construction safety program and maintains safe practices for CBJ personnel at the construction site.
- Proposes and implements a dispute resolution program.
- Develops project budgets; provides fiscal control of projects; reviews and approves expenses charged to projects; administers professional design and construction contracts for timely completion; establishes and maintains the financial project records; and assists in financial audits.
- Determines appropriate insurance and bonding limits and amounts for a variety of project types.
- Designs, conducts and manages specialized studies; identifies alternatives and makes recommendations.
- Assesses project needs and hires, or recommends the hire, of qualified staff to provide high quality public service.
- Prepares reports regarding the status of projects.
- Trains other CBJ staff on project management, documentation and CBJ policies and procedures.
- Supervise and direct staff
- Makes oral and written presentations to the Assembly, Docks & Harbor Board, Commissions, Client Department groups and the public.
- Develops and implements departmental policies and procedures.
- Other related duties as assigned.

For more information and directions on how to apply, visit the City and Borough of Juneau Website.



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All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, or protected veteran status and will not be discriminated against on the basis of disability.

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We always have room for more talent. If this position isn't the right one for you but you still feel like you'd be a great addition to our team, visit www.pdceng.com/open-positions and let us know what position you're interested in. We'll make sure your information gets into the right hands.



www.PDCENG.com

Civil Engineer

Position Opening

Location: Juneau, Alaska

PDC Engineers is seeking a leader to join our full-service engineering team! We design innovative world-class projects utilizing state-of-the-art technologies.

This is a hands-on design and management position for utility, site and transportation design projects. Applicant must have experience providing technical leadership within civil engineering and diversified knowledge of engineering and construction practices. Candidates must possess strong communication skills, and the ability to lead a multidiscipline team, manage projects and interact with clients. This is a great career opportunity for a dynamic, energetic individual with proven technical and leadership skills.

Qualifications/Skills:

- B.S. in Civil or Engineering
- Alaska Professional Civil Engineer License or ability to obtain within one year
- 10+ years' of experience
- AutoCAD & Civil 3D proficiency
- GIS experience is a plus
- Able to manage team and contracts on multiple projects concurrently
- Detail oriented & well organized with demonstrated ability to meet deadlines
- Strong verbal & written communication skills

PDC is a 100-percent employee-owned company. We offer competitive pay, excellent benefits (healthcare, retirement, disability & life insurance, paid time off, 8-holidays/year) and advancement opportunities.

Submit your cover letter and resume to PDC Engineers, Attn: Human Resources, 6205 Glacier Hwy., Juneau, AK 99801 or at jobs@pdceng.com.

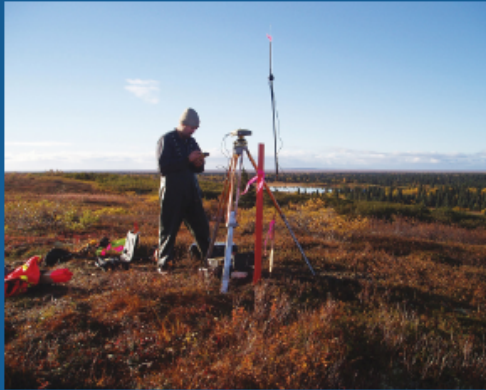
All responses held confidential. Open until filled.

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Ongoing Recruitment

We always have room for more talent. If this position isn't the right one for you but you still feel like you'd be a great addition to our team, visit www.PDCENG.com/open-positions and let us know what position you're interested in. We'll make sure your information gets into the right hands.



WWW.PDCENG.COM

Professional Land Surveyor

Position Opening

Location: Juneau, Alaska

PDC Engineers is seeking an experienced Professional Land Surveyor to join our full-service engineering team and lead and grow our Southeast Survey Department in Juneau, AK. We design innovative world-class projects utilizing state-of-the-art technologies from five offices throughout Alaska. We offer competitive pay and excellent benefits that includes paid time off (PTO), eight (8) paid holidays/year, healthcare, group life/disability, retirement, education reimbursement and advancement opportunities. PDC is a 100-percent employee-owned company.

The successful candidate will be licensed as a Professional Land Surveyor (PLS) in the state of Alaska. Duties include establishing legal boundaries of properties, subdivision plats, Dept. Of Natural Resources plats (ASLS, ATS, Accretions). This position facilitates work for small to large projects and entails the ability to work on many type of survey works, collaborating with multi-discipline engineering staff, clients, and other invested individuals to review and coordinate findings; interprets survey data and calculates geodetic measurements to determine shapes, positions, and elevations of geomorphic and topographic features. Schedules, assigns, supervises work of survey parties, engages in collection, processing and mapping of survey data. Provides advanced professional, technical, day-to-day support, guidance, and input to staff and other team members. Prepares project submittals to ensure that project budgets are met and reviews each project upon completion for quality assurance.

Qualifications/Skills:

- Registered land surveyor in Alaska
- 5+ years of relevant work experience
- Proficient in Trimble Business Center and AutoCAD with Civil 3D desired
- Experience with GPS equipment, total station instruments, data collectors
- Boundary, control, Bathymetric, and topographic survey experience
- Thorough understanding of the principles, practices, and procedures of land surveying
- In depth knowledge of federal and state laws related to land surveying
- Excellent mathematical skills to conduct land survey analysis
- Strong verbal & written communication skills
- Ability to work on multiple projects concurrently and meet deadlines

Submit your resume to **PDC Engineers, Attn: Human Resources, 6205 Glacier Highway, Juneau, AK 99801** or at jobs@pdceng.com. Open until filled.

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proHNS is Hiring (Civil Engineer)

Haines, Alaska

This position, based in Haines, AK, will manage a variety of interesting projects and hone your skills in site development, production of construction drawings and specifications, design of utilities, and construction of government-owned facilities. Most of our projects include all aspects of civil engineering design through on-site construction inspection and contract administration. This job requires professionalism, out-of-the-box thinking, open communication, and a willingness to push the limits of one's expertise. For the right candidate, this is a position that allows for putting down lasting roots in Haines while also continuing to grow with proHNS.

Successful candidates will have at least five years of relevant professional experience, a bachelor's degree in civil engineering or related field, and an Alaska Professional Civil Engineer license (or ability to obtain within one year). Preferred skills include proficiency in AutoCAD Civil 3D and other engineering software applications, solid time management skills, and ability to produce accurate, high-quality work under deadline.

We offer competitive pay, paid personal leave, a SIMPLE IRA retirement program, eligibility for annual performance bonuses, a relocation stipend, and more. To learn more about the position, visit www.proHNS.com/careers. Submit your cover letter, resume, and references to solutions@proHNS.com.

MATHCOUNTS®



The MATHCOUNTS Foundation is a 501(c)3 non-profit organization that reaches students in grades 6-8 in all US states and territories with extracurricular math programs. More than a quarter million students participate each year.

<https://www.mathcounts.org/>

For information on MATHCOUNTS in Juneau, or to volunteer, contact Doug Murray (dougmurray@pdceng.com)

Members of last year's Southeast regional MATHCOUNTS winning team from Dzantik'i Heeni Middle School. From left: coach Mary Borthwick, Marina Lloyd, Krishna Bathija, Addy Mallott and Edward Hu. (Kevin Gullufsen | Juneau Empire)



All around the world, engineers are pushing the limits of ingenuity and innovation in unexpected, imaginative, and amazing ways. Dream Big: Engineering Our World, a giant-screen film about engineering, takes viewers on a journey of discovery from the world's tallest building to a bridge higher than the clouds. Along the way, the audiences witness how today's engineers are shaping the world of tomorrow.

[Available on Netflix](#)

ASCE News Brief



Experience Tomorrow's Built Future Today

BY Samantha-Rose Hall

Imagine the world 50 years from now. What does 2070 look like? How is society continuing to function? How have technological and environmental challenges affected our cities? ASCE's Future World Vision brings those possibilities to fruition.

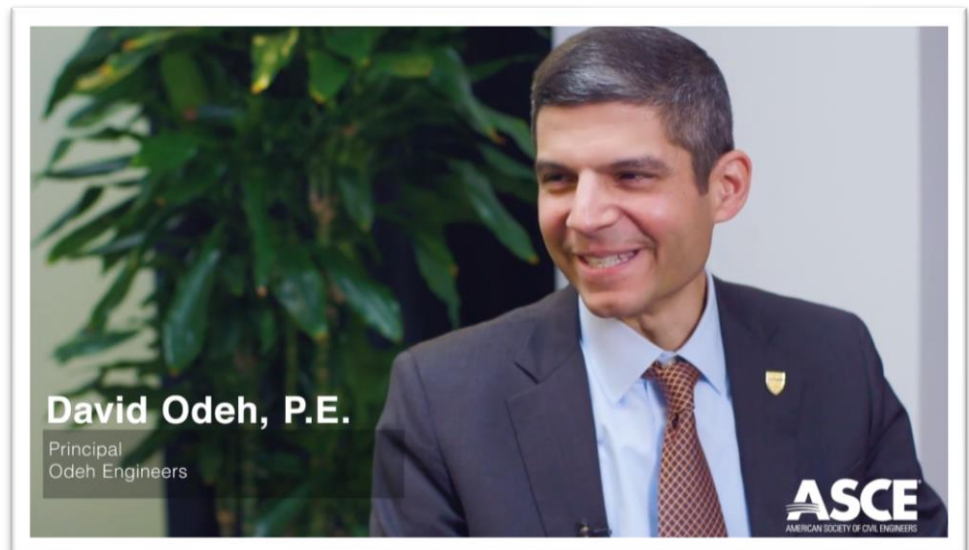
Photograph courtesy of ASCE.org

In this episode of the "ASCE Interchange," David Odeh, principal of Odeh Engineers, discusses the comprehensive Future World Vision program and how it helps civil engineers strategize for an uncertain future.

The two-phase project uses scenario-planning analysis to highlight trends that will shape potential outcomes. Virtual reality models then create an immersive, storytelling experience of different futures.

Odeh believes Future World Vision will bring the best ideas of the profession to life. "We hope that this will engage and inspire our peers, other stakeholders and, most importantly, the next generation of civil engineers who need to be prepared to cope with these eventual futures," he said.

Future World Vision shows both positive and negative potential scenarios. Odeh thinks engineers should assess their current practices and work to assure future positive outcomes.



Photograph courtesy of ASCE.org

[Click here to watch >>>](#)

Professional Development Hours

The ASCE Juneau Branch will provide electronic continuing education development hour certificates for those who are interested in tracking development hours received by attending the Alaska Capital Engineers Luncheons to hear speakers present on engineering topics. Certificates can be found on the branch webpage: <http://branches.asce.org/juneau/>

ASCE Juneau Branch Website

Bookmark this website for easy access to the events calendar, PDH certificates, new and archived newsletters, contact information and much more:

<http://branches.asce.org/Juneau/>

For questions or concerns regarding the Juneau Branch ASCE website, please contact Ethan Roemeling.

AccessEngineering

Developed in partnership with McGraw-Hill Education, ASCE members now have FREE and unlimited usage of this award-winning engineering reference tool:

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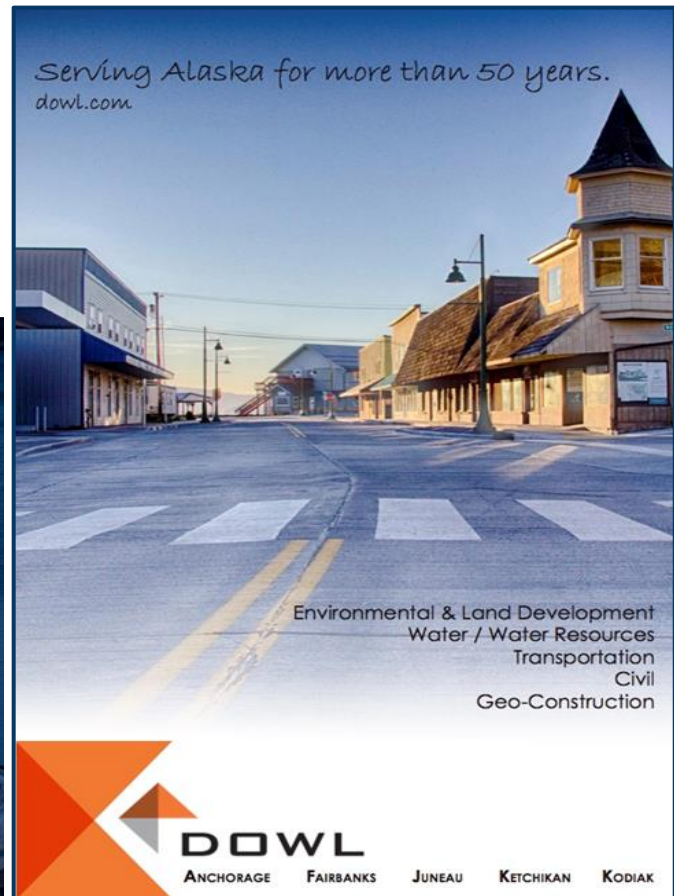
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 907-586-6400

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Membership and Renewal

Thank you for your continued membership and support for ASCE and NSPE. Our professional organizations provide a great opportunity to network with other members of the engineering profession. Select the links below for society membership information.

[ASCE Membership Information](#)

[NSPE Membership Information](#)

2019-2020 Alaska Capital Engineers Officers

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President – Ethan Roemeling, EIT

Vice President - Lucas Chambers, PE

Treasurer – Janice Wells, EIT

Secretary – Micki Minsch, EIT

Past President – Matt McGuan, PE

Emeritus – Naomi Hobbs, PE

Special Committees

School Outreach/STEM Coordinator - Please Volunteer

Dream Big Coordinator - Please Volunteer

ASPE - Alaska Society Contacts

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President - Chris Miller, PE

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Treasurer - Michael Spano, EIT

NSPE House of Delegates - Brad Fristoe, PE

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Fairbanks Chapter Director - Frank Wuttig, PE

Juneau Chapter Director - Darrell Wetherall, PE

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