

PRESIDENT'S MESSAGE:

Greetings Palm Beach ASCE Members!

We hope you all are doing amazing during this crazy time in life. It seems that we are closer to the end of this pandemic than ever and the ASCE Board is excited to start hosing in person events again. We miss being together at our monthly luncheons and social gatherings and cannot wait to see all your smiling faces once again!

Huge thank you to all our members for sticking with us through our virtual meetings. It has definitely been a learning process for the Board and us all. Although we cannot be together, one benefit of our virtual meetings has been the freedom to broaden our reach for presenters. Since the pandemic we've had presenters from all over the state of Florida! With our most recent presenters from Puerto Rico! Its been a great opportunity to see what other engineers are doing outside our County and we hope you have enjoyed hearing from them as much as we have.

We are taking nominations for our EIGN Awards until Monday, May 24th. If you know an engineer or project that should be considered please let the board know. More information regarding the EIGN Award categories can be found on page 5. The Board is planning to celebrate EIGN later in the year as our first in person

event since the pandemic. We are currently looking into options that will allow us to gather safely once again! We hope you all can attend to help us celebrate this years winners. Be on the look out for more information regarding the event in the upcoming months.

The 2022 Presidential Election is underway. All members at the grade of affiliate or above who are current on their dues may vote in the election. Votes can be cast until June 1st. The two candidates are Maria Lehman, P.E., ENV SP, F.ASCE, and South Florida's very own Peter M.

Moore, P.E., ENV SP, LEED AP, F.ASCE. A direct link to the

voting site can be found on page 3.

The 2021 Palm Beach Branch Bridge Competition is still underway! We are looking for designs with the lowest cost to win. All students from a Palm Beach Middle School or High School are welcome to submit. The last day to submit designs will be June 1st. The winners will receive cash prizes varying from \$25 to \$110! The Winner will be asked to attend the Florida Section Conference on Thursday July 1st and will move on the State Contest where they could win up to \$1,000! Very Exciting! More information can be found on page 6.

The ASCE Florida Section Annual Conference will be held IN PERSON this year and we are so excited that most of the Board is planning to attend! The conference will be held at the Westin Fort Lauderdale Beach Resort on July 8th and 9th. Please email Judy at judy@flaasce.org for more information. We look forward to seeing those who can attend.

If you attended our April meeting you got some insight into the Envision Program for ASCE. The Palm Beach Branch is looking to start a Sustainability Committee in the upcoming year. If you are interested and would like more information please reach out to me. This is a great opportunity to make a difference not only in our community but also in our industry!

From my family to yours, we wish you nothing but the best. Be sure you subscribe to our email list and follow us on LinkedIn and



ENGINEERS IN GOVERNMENT NIGHT AWARDS

The Palm Beach Branch of ASCE is pleased to congratulate the following individuals for our annual Engineers in Government Night awards ceremony. The winners were also submitted to the ASCE Florida Section for the next level of competition where the Northwest Cultural Trail & Passageway project won the state award!



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2021 ASCE FLORIDA SECTION CONFERENCE

The Annual ASCE Florida Section Conference was held July 8-9 at the Westin Fort Lauderdale Beach Resort. A special congratulations to winners of the annual section

awards including the Northwest Cultural Trail & Passageway project which was nominated by the Palm Beach Branch and won the award for the 2021 Florida Section Project of the Year! Save the date for the 2022 Annual Conference on July 14-15, 2022 at the JW Marriott Grande Lakes in Orlando.

Pictures from the Conference



2021 PALM BEACH BRANCH ELECTIONS

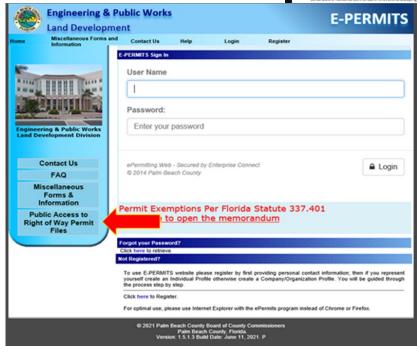
- Members at the grade of Affiliate or above who are current on their dues by April 1 may vote in the election.
- ASCE's election provider, Survey and Ballot Systems, sent an email to eligible voters announcing the election on May 1. Please check your spam filter if you doidnot receive the email.
- Links to the voting site will be placed throughout ASCE's website and below for your convenience.
- Use your ASCE username and password to login to the voting site. If you do not remember this information, please contact ASCE Customer Service at 1 (800) 548-ASCE (2723) or +1 (703) 295-6300 (International).
- Paper ballots are available upon request through May 21, 2021. Please <u>contact Patty</u> <u>Montgomery</u> if you wish to receive a paper ballot.
- Voting will open May 1 and close at 5:00 p.m. CDT on June 1. Paper ballots must be received by the vendor no later than June 1.
- For questions regarding the ASCE election, please <u>contact Patty Montgomery.</u>



Palm Beach County Engineering and Public Works—Permitting

The Permit Section of the Land Development Division has some very exciting news to share with you. With the help of the Department of Information Services Systems, they have created a means for you to access to previously approved permits. They expect that this will be very useful for you as you work on your design projects or seek additional information. To access these document go to "Useful Links", on Land Development's webpage, click on "Public Access to Right-of-Way Permit Files". From there, you can search permits through the County's GIS interface, myGeoNav. You can also access the link on the ePermits main page.





2021 ASCE Palm Beach Branch Bridge Competition Winners

Congratulations

to our
2021 ASCE Palm Beach Branch
Bridge Competition Winners



1st Place – Austin G.

2nd Place – Aidan G.

3rd Place - Adam C.

All from Jupiter Middle School



SOUTH FLORIDA WATER MANAGEMENT DISTRICT'S WATER MANAGEMENT RESILIENCY INITIATIVES

How SFWMD is responding to climate resiliency challenges. Includes Planning and modeling efforts to estimate impacts and future conditions, as well as construction efforts beginning to be advanced to build resiliency / harden infrastructure.



Carolina Maran

Carolina Maran, Ph.D., P.E. is the District Resilience Officer with South Florida Water Management District. In her role, she is responsible for coordinating resilience efforts across federal, state, regional and local agencies, advancing scientific research and data analysis to ensure the District's resilience planning and projects are founded on the best available science; and, developing and implementing comprehensive resiliency goals to mitigate and adapt to the challenges facing the District's infrastructure and core functions from sea level rise and other climate change impacts. Carolina has nearly 20 years of experience working on water resources planning, management, and regulation; water and climate resiliency; water allocation rules and conflict resolution; hydrologic and hydraulic modeling, decision support systems and GIS. Prior to joining SFWMD, Carolina was the Water Manager at Broward County, worked



over 10 years as a Water Resources Specialist for the Federal Water Agency in Brazil, and collaborated with International Organizations as part of technical consulting teams. She holds a Ph.D. in Civil and Environmental Engineering – Water Resources from Colorado State University and a Master's Degree in Water Resources Engineering from Parana Federal University in Brazil. Currently, she serves on the Florida Water and Climate Alliance Steering Committee, Southeast Florida Regional Climate Compact Steering Committee, and on the Board of Directors of South Florida Hydrologic Society and the Resilient Utility Coalition. Mom of two incredible boys, Carolina enjoys watching them play little league baseball and visiting new places with her family.

Download PDH Certificates Here

MICROSOFT EXCEL PIVOT TABLE BASICS

A brief introduction to using Pivot Tables in Microsoft Excel. The presentation addressed when to use pivot tables, how to create them, adding data from multiple sources, fields, formulas, charts, troubleshooting and more! It also included an example to show how to use pivot tables in a real engineering format.

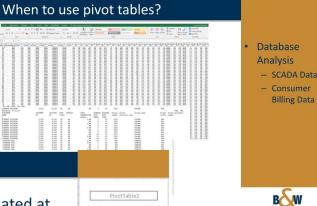
About the Presenter:

Courtney Marshall, P.E. is a project engineer with Baxter & Woodman serving public sector clients on projects involving roadway, stormwater management, and utility infrastructure improvements. She earned her Bachelor of Science in Environmental Engineering from the University of Florida. Away from the office, Courtney enjoys spending time with family and watching her favorite sports teams.

What is a pivot table?

 A pivot table is a function in Microsoft Excel that creates a statistical summary of the database that allows for ease of data comparison and reporting of trends





Click in this area to work with th

Pivot Table Items to Note

- Click in the area designated at any time to open Pivot Table Fields
- Pivot Table Fields can be dragged in and out of areas at any time

We are looking for presenters for our future Young Member Leaders Presentation Series! Interested in presenting?

BOW

Contact Cristina Caceres at Cristina.Caceres@kimley-horn.com or Nick Bragaia at Nick.Bragaia@ghd.com

IMPLEMENTING GREEN STORMWATER INFRASTRUCTURE AT THE ASCE NATION HEADQUARTERS

ASCE doesn't just talk about sustainable infrastructure, they put it into practice it.

In 2018 the need to repave the existing parking lot at the ASCE Global Headquarters was identified. With the desire to practice what is preached, rather than just repave the lot, with funding from the ASCE Foundation, it was decided to invest in green stormwater infrastructure (GSI) to demonstrate and practice the obligation for the practice of sustainable engineering.

Between mid 2018 and mid 2020 the process advanced from concept planning through to construction. Several ASCE technical committees and Institutes, including EWRI, which has many professionals that research and practice green stormwater infrastructure design, installation, and monitoring, provided input and guidance to assist in the parking lot design retrofit.

A core project team was established to shape the final drainage and stormwater treatment systems that included several GSI technologies including pretreatment devices, rain gardens, permeable surfaces, and precast biofiltration solutions to help filter and infiltrate stormwater runoff from the impervious areas of the parking lot.

This presentation will provide an overview of the project from concept planning through to construction. The presenter served as a core project team member.



Rob Woodman

Rob graduated in Civil Engineering from the University of Wollongong, Australia. He spent the first 10 years as design and project engineer for a private engineering consulting firm, gaining experience and expanding his knowledge of the industry on a wide variety of civil and stormwater engineering design projects for private and public sector clients throughout New England. In 2014 Rob took an opportunity to leverage his expertise in innovative stormwater and green infrastructure treatment systems and transitioned from consulting to the product, solution and innovation side of the industry. Rob now serves Ferguson Enterprises (who recently acquired ACF Environmental (where Rob has worked since 2015)) as the National Manager of Urban Green Infrastructure and supports engineers, landscape architects and designers on site development and green infrastructure systems overcoming design and permitting challenges with a suite of innovative solutions. He is a Registered Professional Engineer in Maine and Pennsylvania, a Certified Professional in Erosion and Sedimentation Control, Maine DEP Certified Stormwater Inspector, an ASCE member, Master Gardener, and entrepreneur. Rob lives in Gorham, Maine with his wife, Jessi and four children – Elle (13), Sadie (11), Gracie (9) and Judah (6).

TRANSITION TO LID: ADDRESSING THE COMING CHALLENGES IN FLORIDA

The legacy effects of limited stormwater management are evident across Florida's urban waterways. The "Clean Waterways Act" was passed in part to address this issue and requires FDEP and the Water Management Districts to update stormwater regulations to using current science and address LID practice design criteria for protecting water quality. LID and Green Stormwater Infrastructure (LID+GSI) have been around for decades but implementation in Florida has been slow. For a stormwater management shift to occur though, several aspects related to implementation will need to be addressed. Issues relating to design, construction, and maintenance will need to be resolved. Questions will need to be answered relating to terminology, implementation on restrictive sites with high water tables, limited infiltration capacity, or sensitive groundwater areas, climate change and sea level rise, local ordinances that conflict with LID+GSI, and overall performance. Several efforts are under way to address these challenges though and will be presented. University of Florida has partnered with FDEP's Non-Point Source section to assess the technical needs of stormwater professionals related to LID+GSI, inventory of implementation across the state, and development of technical guidance and design specifications, an ordinance audit tool, and a GSI maintenance training program. The presentation will provide an overview of LID+GSI approaches and techniques and serve as an update for the technical community on UF/FDEP efforts to develop stormwater resources that address these challenges.

About the Presenter:

Eban Z. Bean, PhD, PE is an Assistant Professor and Extension Specialist of Urban Water Resources Engineering at UF in the Agricultural and Biological Engineering Department. He is also a faculty member in the Program for Resource Efficient Communities and the Center for Land Use Efficiency. Dr. Bean's applied research and extension programs focus on urban water resource sustainability primarily through collaboration with the development industry on irrigation conservation via soil amendments, and partnering with state and local agencies to develop low-impact development and green stormwater infrastructure guidance for state and local planners, managers, and engineers. Dr. Bean has been working in urban hydrology and water quality for the past 15 years. He received his PhD in Ag & Bio Engineering from University of Florida (2010) and Masters from North Carolina State University in Bio & Ag Engineering (2005). Prior to his current position, he was an Assistant Professor in the Department of Engineering and Institute for Coastal Science and Policy at East Carolina University (2012-2016; Greenville, NC). Dr. Bean was also a Senior Staff Engineer at Geosyntec Consultants (2010-2011; Kennessaw, GA).

BENEFITS OF GEOPOLYMERS FOR STORM AND SANITARY PIPE AND STRUCTURE REHABILITATION

Geopolymer mortars have become more popular as a choice for large pipe and other infrastructure rehabilitation. When a true geopolymer is specified to reline pipe or culverts or rehabilitate manholes and lift stations, what you're getting is an exceptionally high performing and versatile material that will structurally restore the failing pipe (storm and sanitary) or structures as well as make it extremely corrosion resistant to future H2S attacks. This presentation will highlight a large diameter pipe lining coastal project in Santa Rosa Beach, as well as provide a detailed overview of what truly defines a geopolymer, its performance characteristics, installer benefits and where it's used.

About the Presenter:

As Sr. Business Development Manager, Casey covers the states of Florida and Alabama for the Vortex Companies. Over the last several years, Casey has developed extensive knowledge of the trenchless technology industry and how it can benefit national and local government's management and improvement of America's aging infrastructure. With over a decade of government, construction and transportation policy experience, Casey's primary role is to introduce Vortex Companies' trenchless infrastructure solutions to, and build relations with, key decision makers in the municipal, industrial and commercial space. A member of the Vortex family since 2016, Casey was initially hired as a Business Development Manager where she was based in Chicago and covered Vortex's 11-state Midwest territory. In 2018, Casey was promoted to Sr. Business Development Manager and was transferred to Tampa, where she was asked to build the Florida and Alabama markets and outlying regions, after the company acquired a trenchless installation service business in the area. Prior to Vortex, Casey held positions as a Senior Analyst for Government & External Affairs for the New York Metropolitan Transportation Authority and was also a Policy Analyst for the General Contractors Association of New York. Casey is a 2008 graduate of King's College where she received a Bachelor of Arts degree in Mass Communications, with a Minor in Political Science. She currently resides in St. Petersburg, Florida.



THINKING INSIDE THE BOX – A MUCH BIGGER BOX

Things I wish I had known when I started designing! We are taught how to engineer a solution. Are we taught how to design? Explore processes that will make designs more efficient, creative, fun, and fulfilling. Optimal success is achieved through better understanding your project by applying these processes.

Great engineers use design processes to achieve fulfilling careers and successful projects. To be successful, do you need to think outside the box? After all, engineering is a creative profession. Perhaps we should examine our box and better define its boundaries. Consider the four sides of our box: standards, criteria, assumptions, and constraints. The bottom is history and the top is PROCESS. The engineer's box is built for very good reasons. Our primary obligation is to protect the public. ASCE's Code of Ethics starts, "Hold safety paramount". The canons can be paraphrased into three basic rules of engineering: don't kill or injure anyone, it is someone else's money, and tell the same truth to everyone.

While honoring the legitimate limitations, we can be more creative and effective in our problem solving by using a broader array of design processes. By using lateral thinking, creative conceptualization, testing of assumptions and other techniques we can help our clients better articulate their needs so that we can better provide a high-performance solution. We will explore real world examples using these processes and more. By expanding and improving our processes and taking advantage of new technologies, we are still working within our design box, but we have expanded its dimensions considerably.

About the Presenter:

Robert thoroughly enjoys his career as an engineer. Whether working on pit latrines in the developing world with Engineers Without Borders, to forensic analyses of major dam failures, his career as an engineer is rich and rewarding. Fortunately, his early mentors taught him that design is more than a series of calculations, words in specifications or a report, and lines on drawings. Over the years, he has learned to apply a variety of processes to better understand the intent of a project, how it fits into its surroundings and the use local materials.

His early career included designing over 20 major reservoirs and dams, several near 30 meters high and continued with design of large water resource projects including responsible engineer positions on four hydro-electric and two coal-fired power plants. He was a response engineer for a nuclear power plant. He shared in the establishment of a specialty engineering firm and designed hundreds of kilometers of successful river and stream stabilization projects. He led the conceptualization of a lakes and wetlands system to treat all run-off for a new town in China. Now, much of Robert's time is spent as a mentor and reviewing projects around the world. Robert has a bachelor's and master's degrees in civil engineering from the Georgia Institute of Technology, is a professional engineer and is a certified value specialist.

Palm Beach County

Professional Engineer - Engineering and Public Works/Roadway Production

Position: PROFESSIONAL ENGINEER

Salary: \$81,533 Annually, negotiable depending on qualifications **Department::** Engineering and Public Works/Roadway Production

Location: 2300 N. Jog Road, WPB

Hours: 8:00 A.M. to 5:00 P.M., Monday - Friday

Plans, coordinates, reviews and approves the work of professional and technical staff in the Roadway Production Division. Negotiates design contracts with consultants and reviews thoroughfare roadway and bridge design plans prepared by consultants. Oversees the stormwater mapping program; assists Engineering staff in the review of roadway plans/permits to ensure drainage standards are met. Coordinates with Geographic Information System (GIS) staff and other Engineering departments/divisions to develop interactive maps for use within Engineering. Reviews GIS stormwater data entry for quality assurance/quality control. Assists in preparation of contract documents for bidding and construction of County roads and bridges; coordinates and approves field adjustments during construction; reviews and approves construction shop drawings; coordinates permit applications and information to obtain all necessary construction permits. Processes consultant pay applications; prepares agreements for road and bridge projects; performs cost estimates for project planning; signs and seals inhouse designs and modifications for County roadway improvement projects; assists in coordination with utility companies to address utility conflicts with proposed road and bridge designs in order to accommodate necessary relocation and/or adjustments of existing utility lines and the installation of new utility lines and structures. Performs permit reviews for drainage, rightof-way and utility permits through E-permitting. Assists in the preparation of plans and exhibits for right-of-way acquisition and the general right -of-way acquisition process. Work is complex and requires considerable contact with the public as well as other County Divisions and local governments. Requires both independent professional judgment and decision-making of considerable difficulty.

QUALIFICATIONS: Licensed as a Professional Engineer (P.E.) in the State of Florida (FL) OR Bachelor's Degree in Civil Engineering; minimum of four (4) years of experience in professional engineering with emphasis on roadways and highways. Equivalency: Related Master's Degree and three (3) years of related experience. Necessary Special Requirement: Licensed as a P.E. in the State of FL OR licensed as a P.E. in another state and ability to obtain State of FL P.E. licensure within 11 months of hire.

PREFERENCE FOR EXPERIENCE: As a P.E. in the State of FL working on roadways and highways; in structural and drainage design; understanding of GIS terminology and best practices to coordinate engineering needs with technical staff/consultants; working with local government agencies or FL Department of Transportation (FDOT); working with FL Green Book, FDOT Standard Specifications for Road and Bridge Construction, FDOT Roadway and Traffic Design Standards and American Association of State Highway and Transportation Officials (AASHTO) Green Book.

Visit www.pbcgov.jobs for job description and to apply online. May upload any Veteran's Preference documentation to online application (No e-mail applications/resumes accepted).

Online Applications are accepted no later than 5:00 p.m. on the closing date. EO/AA M/F/D/V, Drug Free Work Place; All employees of Palm Beach County may be required to work before, during and/or after a natural or man-made disaster or hurricane.

See full posting **HERE**



2020-2021

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http://www.asce.org/ membership

2020-2021

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