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FEATURE:

Estimating Shrinkage of Coastal Soil

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MAY 2018
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The Louisiana Section of the American Society of Civil Engineers was founded in 1914 and has since been in continuous operation. The Section consists of the entire state of Louisiana and is divided into four branches that directly serve over 2000 members. They are the Acadiana Branch centered in Lafayette, the Baton Rouge Branch, the New Orleans Branch, and the Shreveport Branch.

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President's Message

By Malay Ghose Hajra, PhD, PE

Malay Ghose Hajra, PhD, PE

Spring is in full bloom in Louisiana. As we reach the midway point in the current ASCE calendar year, Louisiana Section is on track with our traditional annual activities and complementary initiatives we set out to accomplish.

Every spring, ASCE holds its Legislative Fly-In Program in Washington, DC. This year, Kirk Lowery, Beau Tate, Ken Perret, and Nedra Hains represented ASCE Louisiana section at the fly-in. They were able to use Louisiana's 2017 Infrastructure Report Card to discuss with our elected officials the issues facing our infrastructure and provide suggestive solutions for fixing the challenges. It was a great way for ASCE- LA representatives to inform and guide our lawmakers, as well as the public, about the challenges encountered on a regular basis and potential opportunities for engineers as we strive to improve quality of life for everyone in a safe environment.

The Baton Rouge branch hosted this year's Annual Louisiana Section Spring Conference on April 26-27, 2018 at the Marriott hotel in Baton Rouge, LA. The technical sessions covered a variety of engineering and related topics and were well received by the participants. The Louisiana section had the opportunity to present scholarships to the outstanding students from all local universities. Several ASCE members also received their life membership honor during the general membership meeting on April 27. Congratulations to all Life Members and student award recipients. Sincere thanks go to the Baton Rouge branch and conference organizers for hosting a great event. The 2019 Annual Louisiana Section Spring conference is scheduled to be held in Shreveport, Louisiana.

The department of Civil Engineering and ASCE Student chapter of University of Louisiana at Lafayette recently hosted ASCE's Deep South student conference on March 23-24 in Lafayette, Louisiana. Approximately, 340 students representing 14 university ASCE student chapters from Louisiana, Mississippi, Tennessee, Arkansas and China (yes!) participated in this occasion. In addition to enjoying great Cajun food and music, the students participated in technical paper presentation, environmental quiz bowl competition, surveying assignment, concrete canoe competition and paper presentation, Steel bridge display, assembly, and loading test as well as a mystery event. Everyone had a good time and acted in true spirit of the competition by cheering and assisting each other.

President's Message, Cont.

The movie "Dream Big: Engineering Our World" remains a staple on giant screens in museums and theaters around the world. ASCE headquarters has set a new goal of bringing *Dream Big* into every U.S. public school for screening. ASCE Louisiana section has ordered several *Dream Big* educational DVDs to take to local public schools and encourage young minds into choosing engineering as a profession. I highly encourage you to contact your local branch and get involved in this motivating and rewarding initiative.

ASCE New Orleans branch in collaboration with University of New Orleans' College of Engineering recently hosted about 1,600 students from 26 New Orleans – area middle and high schools to watch the Dream Big movie at UNO's campus. Nearly 30 exhibitors also participated in this event and discussed career choice in engineering with the students. Many engineering companies and organizations had hands-on activities for the students too. Thanks to the U.S. Army Corps of Engineers, Atmos Energy, Brown Foundation with "From Student to Scientist," Core Element, Entergy, Girl Scouts Louisiana East, Hewlett Packard, Intralox, Lake Pontchartrain Basin Foundation, Laser Interferometer Gravitational-Wave Observatory Lab, Microsoft, MISO Energy, MS Benbow and Associates, U.S. Naval Research Laboratory in Stennis, Port of New Orleans, Shell Oil, Stennis Space Center and The National WWII Museum for their participation. ASCE – UNO student chapter were also in participation. Thanks to everyone for their involvement in making this a huge success.

ASCE Louisiana section's History and Heritage (H&H) Committee continues to research and prepare applications for National Historic Landmarks. Recently the Bonnet Carre Spillway near Norco, Louisiana was accepted and dedicated as a National Historic Landmark by ASCE. The History and Heritage committee is currently working on gathering information of multiple Louisiana civil engineering projects to submit necessary paperwork to the national H&H committee. If you have suggestions regarding any civil engineering structures (in your area) for consideration of this prestigious award, please contact me.

Jointly hosted by New Orleans branch of ASCE and the Louisiana chapter of ACI, the Louisiana Civil Engineering Conference and Show will be held on September 26-27, 2018 at the Pontchartrain center in Kenner, Louisiana. The host committee is currently looking for motivated speakers to make this a successful event. Presentation topics may include general civil, structural, construction, hydraulics, water resources, geotechnical, environmental, coastal, transportation, materials, surveying, building codes, project management, liability, specifications, contracts, and student related topics. For information related to this conference, please visit https://www.louisianacivilengineeringconference.org/

As you continue your professional and personal progression in 2018, I encourage you to stay connected with fellow ASCE members and involved in ASCE activities through your local branch. I also encourage you to reach out to your local ASCE student chapter and younger member group and participate in their events. Our future generation of Civil Engineers need your mentorship and guidance as they start or advance in their professional and personal endeavors.

I hope everyone has a great summer. If you have any comments/suggestions regarding how we can improve service to our membership, please contact me (mghoseha@uno.edu). I look forward to hearing from you and seeing you at a future ASCE event. Thank you for your affiliation with ASCE.

"At its heart, engineering is about using science to find creative, practical solutions. It is a noble profession."– Queen Elizabeth II

Louisiana
CIVIL ENGINEERING
Conference & Show

SAVE THE DATE!

Call for Potential Speakers and Exhibitors!

We are proud to announce the dates for the 28th Annual Louisiana Civil Engineering Conference and Show. This event, a joint effort from the New Orleans Branches of ASCE and ACI, is the premiere gathering for the Civil Engineering community in the Greater New Orleans Area. We are in the process of soliciting sponsors and exhibitors and establishing the technical program for the fall conference which will be held on September 26-27, 2018, at the Pontchartrain Center in Kenner, Louisiana.

For additional information on the conference, please visit our web site at www.LCECS.org

ESTIMATING SHRINKAGE OF COASTAL SOIL

By Venu Tammineni, PE & David S. Eley, PE

Venu Tammineni, PE

David S. Eley, PE

Introduction

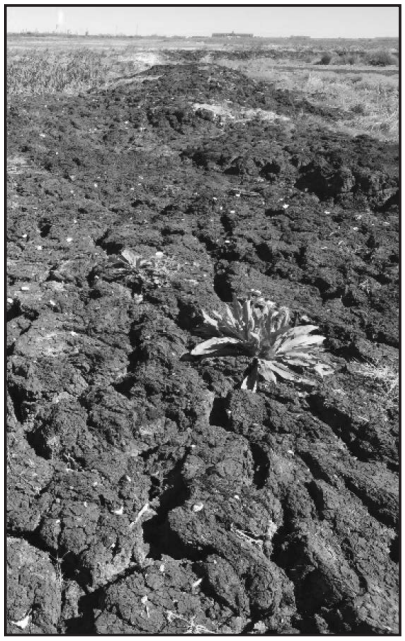


Figure 1: Soil Shrinkage

Geotechnical design in coastal Louisiana is relatively challenging for many reasons including, but not limited to, soft soil behavior, estimating spatial variation of soil, making assumptions for weather and water conditions, estimating varying loading conditions, construction means and methods, etc. Earthen structures constructed in coastal Louisiana marshes typically undergo consolidation settlement and shrinkage. While there are a considerable number of studies in the literature discussing consolidation settlement, there are relatively few that delve into shrinkage of soil associated with coastal conditions, especially when there is water recharge. A typical coastal Louisiana marsh creation/restoration project may include construction of earthen terraces, earthen dikes and placement of hydraulic fill to a pre-determined target elevation. This involves understanding the behavior of foundation soils and fill over the desired project life. Typically, as water in soil pores is expelled due to self-weight consolidation of the earthen feature, the height and volume of the earthen feature change. At the same time, sun, heat, wind and vegetation evaporate water from the surface of the earthen feature. Thus, consolidation settlement and shrinkage are occurring simultaneously and are difficult to differentiate. Both processes may have considerable effect on the height and volume of the earthen feature. For this reason, consolidation settlement and shrinkage should both be considered by designers and contractors especially for Louisiana coastal projects using native clay and organic soil with high moisture content.

Soil shrinkage often starts when a saturated or wet soil is exposed to air, and water begins to evaporate. Shrinkage may occur when a submerged area is de-watered for an extended time, or when submerged soil is excavated and placed above the water level. ASTM D4943 provides a method to determine the shrinkage limit of a soil; however, this method does not consider a condition where soil may be exposed to air drying at the air-soil interface, but also can replenish water through capillary rise. The scenario of a soil being exposed to air drying, while also being in contact with a water source is more common for earth related projects in Louisiana's coast.

This article presents results from a simplified experiment to evaluate shrinkage of soil samples. Thirteen soil samples were allowed to air dry while a portion of the sample was submerged in a tray of water, over a time varying from 133 to 210 days. The test environment was inside and air conditioned with a temperature between 70° and 75° Fahrenheit. It was observed that a balance was achieved by soil samples between water loss from evaporation and recharge of water from capillary action in a controlled environment.

Laboratory Experiment

Thirteen soil samples from 3 different sites located in coastal Louisiana were used for this experiment. The map insert shows the location of the 3 different sites. Of the 13 soil samples, 11 were undisturbed samples obtained using a 3-inch outside diameter (OD) thin wall tube sampler two samples were remolded samples.

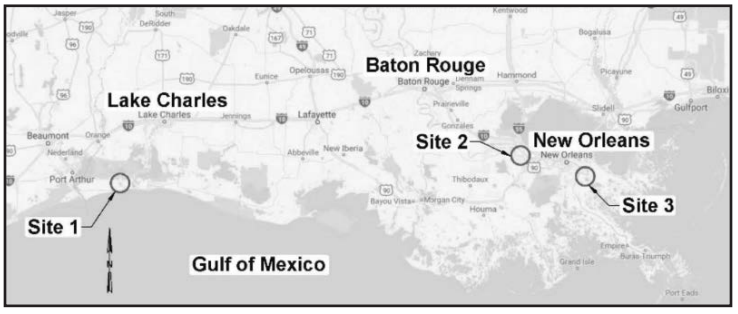


Figure 2: Site Locations

There was no standard procedure known to the authors to complete this observational experiment. The procedure used was as follows. Each sample was placed on a porous stone in a tray filled with tap water and measured to acquire a base reading (time zero). A filter paper was placed between the soil sample and the porous stone and a 3-inch outer diameter (OD) by 2-inch high ring was placed around each soil sample above the porous stone to provide

sample containment below the water level. Water was replenished as needed to maintain a level above the porous stones, but not more than 2 inches in the tray (in contact with the sample but not over the support ring). Thereafter, soil sample measurements were taken weekly for the first month, then as required based on soil behavior. The measurements included height at four locations around the sample circumference and a diameter measurement at the top of the sample.

After a sample observation period varying from 133 to 210 days, moisture content, organic content, and Atterberg limit tests were performed on samples as summarized in Table 1. Soil samples were tested following applicable ASTM standards. Moisture content tests at the end of the experiment were taken at three locations:

- Top of sample (identified as sample #A in Table 1),
- 4-inches from top of porous stone (identified as sample #B in Table 1),
- and 2-inches from top of porous stone (identified as sample #C in Table 1).

Table 1: Summary of Laboratory Results

Soil Description	Site	Sample Number	Final Moisture	Organic Content	Liquid Limit	Plasticity Index
Black Peat (PT)	3	1A	691	54.2	613	332
		1B	955			
		1C	1020			
Dark Clay with organics (CH)	3	2A	7	6.5	86	57
		2B	37			
		2C	80			
Gray Clay trace organics (CH)	1	3A	8	2.2	61	39
		3B	28			
		3C	109			
Gray Clay with silt and sand (CL)	1	4A	6	4.9	47	21
		4B	24			
		4C	53			
Black Organic Clay (OH)	3	5A	42	16.0	117	86
		5B	83			
		5C	143			
Black Peat (PT)	3	6A	304	30.1	467	315
		6B	400			
		6C	446			
Brown Peat (PT)	2	7A	580	49.7	778	390
		7B	1103			
		7C	1073			
Black Peat (PT)-remolded	3	8A	513	48.4	587	341
		8B	704			
		8C	748			
Black Peat (PT)-remolded	3	9A	409	41.1	502	274
		9B	665			
		9C	634			
Gray Clay with organics (CH)	2	10A	13	9.8	66	37
		10B	70			
		10C	115			
Gray Clay with organics (CH)	2	11A	15	5.2	73	44
		11B	48			
		11C	88			
Gray Clay with organics (CH)	2	12A	26	5.7	58	35
		12B	52			
		12C	88			
Gray Organic Clay (OH)	2	13A	16	15.4	63	28
		13B	66			
		13C	147			

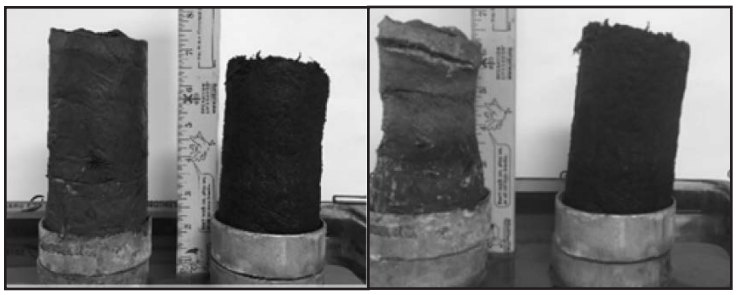
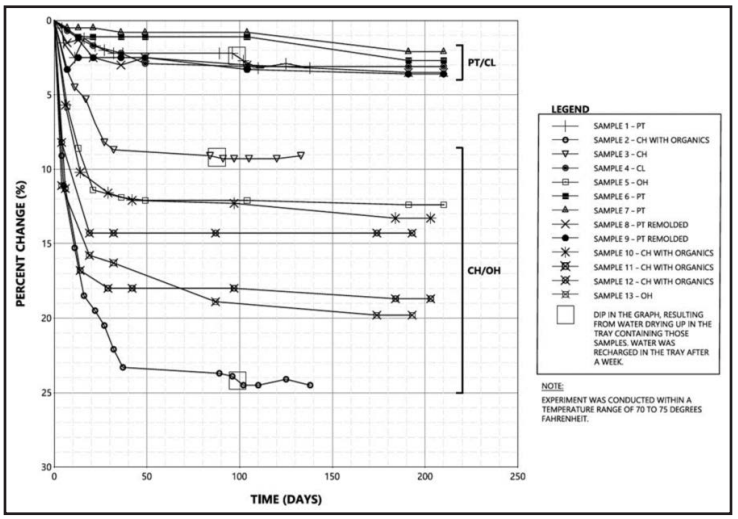


Figure 3: Typical samples at start (left photo) and end (right photo) of observation period. Sample 2 (CH) on left and Sample 1 (PT) on right.

Experiment Results

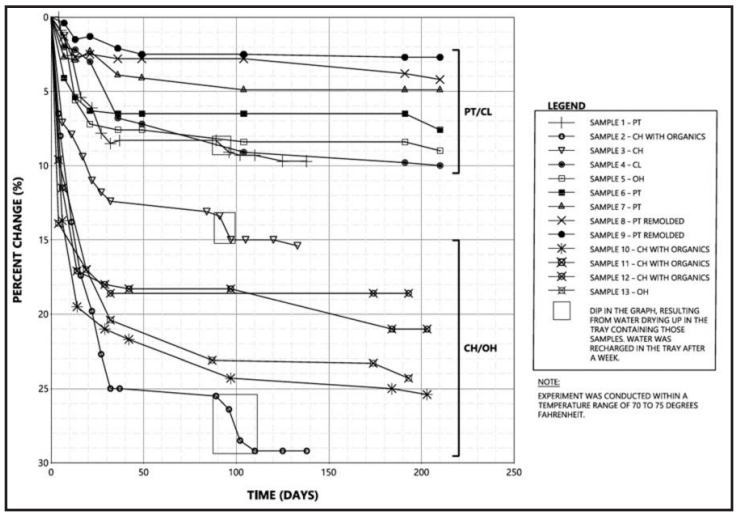
Graphs in Figures 4 and 5 below show the percent change in average height and diameter, with respect to time. As visible in Figure 4, height shrinkage of peat and low plasticity clay ranges from approximately 2 to 4 percent and height shrinkage of organic clay and high plasticity clay ranges from approximately 8 to 25 percent. As visible in Figure 5, diameter shrinkage of peat and low plasticity clay ranges from approximately 2 to 10 percent and diameter shrinkage of organic clay and high plasticity clay ranges from approximately 8 to 29 percent.

Figure 4: Sample Height vs. Time



A relatively sudden change in shrinkage was observed in Samples 1, 2 and 3 when water was not replenished in the tray. This can be seen in the both Figures 4 and 5 as a sudden dip in the data plots. The majority of the shrinkage appears to occur within the first 50 days of starting the test in a controlled environment. Beyond 50 days most samples appeared to reach equilibrium and there was less shrinkage or swelling, except when water recharge was not maintained.

Figure 5 - Sample Diameter at Top of Sample vs. Time



Discussion

We expected soils with higher moisture content (peat) to shrink more; however, this was not the case. Typically, when samples are air dried without moisture recharge, more shrinkage occurs in higher moisture content soil. However, when water recharge is available, shrinkage appears to be a function of the rate at which water is drawn into the soil structure through capillary action, versus the rate at which water evaporates. In the soil samples evaluated for this study, peat (PT) appears to be best able to maintain moisture through capillary rise, while high plasticity (CH) and organic clay (OH) were most susceptible to shrinkage. Height and diameter change in low plasticity clay (CL) was similar to that of PT; however, we believe this is a result of CL being less susceptible to shrink and swell instead of capillary action. Table 2 summarizes the ratio of moisture content at the top of the sample (the #A sample in Table 1) to the moisture content at the bottom of the sample (#C sample in Table 1) at the end of the test. The PT samples maintained a greater percentage of the moisture than CH or OH samples, while the CL sample was similar to the CH samples. This supports our belief that the CL sample was less susceptible to shrink and swell.

Table 2: Moisture Loss Comparison by Sample Type

Type of Sample	# of Samples	Sample A Moisture/ Sample C Moisture	
		Average	Range
PT	5	64.6%	54.1% - 68.6%
OH	2	20.1%	10.9% - 29.4%
CH	5	14.8%	7.3% - 29.5%
CL	1	11.3%	11.3%

Soil with smaller pore spaces is expected to have a greater capillarity than soil with larger pore spaces. For example, clay is expected to have a greater capillary rise than sand. Capillary action draws water into the soil from a water source (base of the sample in our experiment). However, while clay has a greater capillary rise than sand, the same small pore spaces that increase capillary rise, also reduce the space available for water to pass through the sample and reduce the soil permeability. Capillarity, initial water content, plasticity and permeability were likely the controlling factors in our experiment. While CH and OH have high capillarity, the rate at which water evaporated exceeded the sample's ability to replenish water through capillary rise due to its low permeability. CH and OH samples also had relatively high initial water contents and high plasticity. Although PT samples had higher initial water content than CH and OH, it appears that PT was able to replenish water nearly as fast as it evaporated through capillary rise. Organic fibers within peat likely had a significant effect on capillary rise. For the CL sample, post-test moisture content comparisons suggest capillary rise did not keep up with evaporation, and the smaller shrinkage was likely due to lower plasticity. The geometry of exposed surface area for evaporation versus the distance required for capillary rise and soil classification will contribute to shrinkage potential in the field. Our samples had a lot of surface area for evaporation when compared to an earth dike that proportionally may have much less surface area for evaporation compared to recharge area and capillary rise distance.

This information may be useful for estimating shrinkage potential for coastal construction projects; particularly for earthen containment dikes and earthen terraces used in coastal projects. For example, a containment dike built above the average water level might be estimated to shrink more if CH or OH soil is used to build the dike than if PT or CL soil is used. A culvert structure with above-water fill components might be expected to require additional fill to make up for shrinkage if high moisture native CH or OH materials are excavated from a submerged condition and used for fill.

The measurements shown in Figures 4 and 5 could be used to estimate shrinkage magnitude keeping in mind these tests were performed in an air-conditioned lab environment (no sun, no vegetation, low humidity and controlled temperature) versus field conditions. Shrinkage is in addition to other potential fill losses for containment dikes such as consolidation settlement of subsurface soil and fill.

Future Study Recommendations

It isn't clear how this information may translate to field observations in less controlled environments. It would be interesting to make several mounds of soil in a low emergent marsh area with some of the soil mounds in direct contact with the underlying saturated marsh soil, and some isolated by means of an impermeable barrier, or some other means, and monitor shrinkage over time against soil type, weather and other variables that may potentially affect shrinkage. Monitoring at regular intervals including visual observations and soil testing may help to better define expected field behavior for differing soils.

Acknowledgements

We thank Jason Kroll with National Oceanic and Atmospheric Administration for providing feedback on shrinkage of containment dikes constructed for a marsh creation project in coastal Louisiana and how the estimated shrinkage values based on air dried samples with no water recharge varied from that observed during construction. This prompted the authors to develop and perform this experiment. We also thank GeoEngineers laboratory personnel for monitoring the soil samples.

Bios

David S. Eley, PE *is a principal engineer with GeoEngineers, Inc. in Baton Rouge, Louisiana. David received his BS in civil/environmental engineering from Clarkson University, Potsdam, NY in 1989 and his MS in civil/geotechnical engineering from the University of Massachusetts, Amherst, MA in 1991. David is a registered professional civil engineer in several states including Louisiana and has been practicing engineering in the Gulf Coast region for 27 years.*

Venu Tammineni, PE *is a senior engineer with S&ME, Inc. in Baton Rouge, Louisiana. Venu received his MS in civil/geotechnical engineering from Case Western Reserve University in Cleveland, Ohio in 2005 and has been practicing geotechnical engineering for 13 years. He is a registered professional engineer in Louisiana, Texas and Ohio.*

ASCE Region 5 Director's Letter

By Peter M. Moore, PE, ENV SP, F. ASCE

Peter M. Moore, PE, ENV SP, F. ASCE

March 30, 2018 Update for Region 5

The ASCE Board of Direction met in conjunction with the 2018 Fly-In and Annual Awards over the period of March 13-17, 2018 in Arlington, Virginia. This was a normal business meeting for the Board with several valuable topics discussed in the remainder of the report. In addition to the Board meeting, there were over 250 attendees at the Fly-In, including over 25 representatives from Region 5.

The first day of the Board meeting included a presentation by the ASCE Foundation discussing their ambitious goal to increase participating in the ASCE Foundation and another presentation by the Industry Leaders Council (ILC) about their proposal to execute on the proposal for future planning with the goal of trying to foresee various potential "future worlds" for the purpose of understanding the role of the civil engineer in said future world's. The Board approved ILC's proposal and this effort will begin shortly.

Also, on the first day of the meeting, there were several presentations from Audit Committee, Treasurer and the Task Committee on New Revenue in which the overall theme was the rethinking of the ASCE business model as revenues from membership, continuing education and other sources are declining as a result of external forces. A discussion about the restructuring of the Board and debt to the Institute for Sustainable Infrastructure was moved from Day Two to Day One and that resulted in Board approval for the plan which should allow ISI to continue on solid footing. There was a closed session for the Board that considered designating the "Distinguished Member" Grade to several individuals.

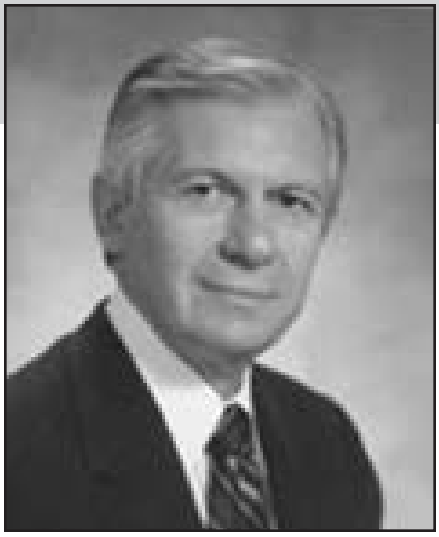
Day One also included some "different thinking" with a presentation by Roy E. Wright, the FEMA Deputy Associate Administrator for Insurance and Mitigation, who talked about a wide variety of subjects relating to the National Flood Insurance Program (NFIP) and engineer's role in that space. Lastly, the Board took a tour of the DC Water's Blue Plains Advanced Wastewater Treatment Plant, the largest plant of its kind in the world.

Day Two of the Board Meeting included some intense and meaningful conversations relating to the Sociology of Professions, a panel discussion entitled "Shaping the Future – The Role of the Profession and ASCE", reports on the Civil Engineering Body of Knowledge (BOK-3) and the Raise the Bar Committee. This led to a long discussion on the future Direction of the Raise the Bar Committee with an emphasis for the Committee to focus and credentialing, member grades and other opportunities to Raise the Bar internally. Day Two included the Board Strategic Advisory Committee (BSAC) and a review of the Strategic Goal and Strategies, with the goal being to finalize those so that the final Tactics for the implementation of the Goals can be completed at the July Board Meeting.

UPCOMING DATES:

- April 5-7, Carolinas Student Conference, Durham, NC
- April 25-27, 2018, Louisiana Section Spring Conference, Baton Rouge, LA
- May 25-26, National Student Steel Bridge Competition Finals
- June 23-25, 31st National Concrete Canoe Competition
- July 13-15, Florida Section Annual Meeting, St. Petersburg, FL
- July 13-15, ASCE Board of Direction Meeting, Charleston, SC
- July 16-18, Alabama Section Meeting – Orange Beach, AL
- August 3-5, Younger Member Leadership Symposium – Reston, VA
- September 22-23, President's and Governors Forum – Reston, VA
- September 26-27, 28th Annual Civil Engineering Conference - Kenner, Louisiana
- October 11-15, Society Convention and Board of Direction Meeting – Denver, CO

The Greatest Generation: Six Decades of Engineering



Christopher (Chris) Demopulos, PE
1924 - 2018

Scottsdale, AZ - Chris Demopulos formerly of Shreveport, LA, passed away Sunday morning, April 8, 2018, at the age of 93, surrounded by his loving family.

Chris Demopulos was born in Texarkana, Texas on October 30, 1924 to Helen and Frank Demopulos. He attended Texas A&M University and received a Bachelor of Science in Aeronautical Engineering in May 1947. While in college at age 18, Demopulos enlisted into the U. S. Army Air Corps during World War II. He was a Navigator on a B 17 bomber in the 8th Air Corp 486 bomb group 833rd squadron stationed in Suffolk, England and flew 13 missions over Germany until Germany surrendered. Or, as he would say, "12 b" missions since the crew were superstitious about the 13th mission. After Japan surrendered in August 1945, Demopulos received an honorable discharged and soon married the former Sophia Soteropulos November 12, 1950 in Fort Smith AR. They have two children, Anne Demopulos Smith and Paul C. Demopulos, and three grandchildren, Susanne Temple Kimball, Dr. Buck Temple and Elizabeth Demopulos McCormack and one great-granddaughter Grace Alexandra Kimball. Mr. Demopulos started his engineering career working for E.M. Freeman Inc. in Shreveport in 1947. It was 65 years ago that Chris Demopulos opened his engineering firm, Demopulos and Ferguson Inc. (DFI) with Bill Ferguson, on January 1, 1953, based in Shreveport. Since then, the company grew and did business in Louisiana, Texas, Arkansas and Oklahoma. He served as the company's Chairman, CEO and Project Director. DFI provided civil, structural and environmental engineering services for municipal, state and federal agencies, industrial and private developers. He was a registered professional engineer in Louisiana, Texas, Arkansas, and Oklahoma, a registered professional land surveyor in Louisiana and received Certificate of Qualification by the National Council of State Board of Engineering Examiners in 1965.

His professional experience is reflected by the wide variety of projects designed by Demopulos and Ferguson Inc. (DFI). He served as Project Officer responsible for contract administration of all highway and bridge projects with the Louisiana Department of Transportation and Texas Department of Transportation. Other projects include Bossier Downtown Redevelopment Plan, Caddo/Bossier Port Development for Port Commission, Master Plan for West Shreveport Industrial Park, Corridor Study for extension of I-49, Location study and environmental impact statement and design of a new Red River Bridge on US 84, Location study and construction documents for Clyde E. Fant Memorial Parkway, as well as Arthur Teague Parkway, construction of railroad extensions, planning and design of residential subdivisions, among many other projects.

Mr. Demopulos interest in promotion of the engineering profession is exhibited by his activity with many professional and technical societies including, Member of the Louisiana Engineering Society serving as a State Director in 1968, Initiated organization of and served as the first President of the Shreveport Chapter, CEC/L 1968, President of Consulting Engineers Council in Louisiana 1972-1973, National Director in ACEC in 1973-1974, President of the Shreveport Chapter ASCE in 1965-1966, State Director of ASCE, Louisiana Section, 1966-1967, Received recognition as ASCE Fellow 1967 and Life Member in 1994, President of Shreveport Post, Society of American Military Engineers 1969-1970, Member of the Louisiana Board of Registration for Professional Engineer and Land Surveyors 1977-1986, served as member of the Civil Engineering and Land Surveying committees and as President of the Registration Board in 1982-1983.

Mr. Demopulos served on the Professional Engineering Committee of the National Council of Engineering Examiners for five years 1981-1986 including three years 1983-1986, as chairman of the Committee for the development and organization of the national examination for civil, structural, and sanitary engineers. During this period, the examination was restructured to comply with the new exam format to reflect the NCEE Survey conducted in 1980.

For the direction and leadership as Chairman of the Civil, Structural and Sanitary Committee, Mr. Demopulos was recognized with the NCEE Southern Zone Distinguished Service Award in 1986 and the National Distinguished Award in 1987.

Mr. Demopulos received the Engineer of the Year Award from the Shreveport Engineering Scientific Council in 1979 and 1984 and the A.E. Wilder Award by Consulting Engineers Council of Louisiana in 1980.

In 1998 Chris Demopulos together with Dr. H. Whitney Boggs, Jr. and Dr. Joseph Cush received the Excalibur Award from the American Cancer Society.

The family suggests memorials may be made to St. George Greek Orthodox Church Building Fund, 1719 Creswell, Shreveport, LA 71101, and The Salvation Army of Northwest Louisiana, C/O: Merkle Center of Hope Veterans Program Attn: Sara Kleinecke PO BOX 1158 Shreveport, LA 71163.

2018 Spring Conference

The Baton Rouge Branch hosted the 2018 ASCE Louisiana Section Spring Conference on Thursday, April 26th and Friday 27th at the Baton Rouge Marriott. The recently renovated facility was beautiful and provided a great host site for this conference. The conference was a great success, and the Section Board and Baton Rouge Branch would like to say thanks to all the attendees, speakers, sponsors, exhibitors, students, faculty members, and all those who donated their time to make this conference possible.

The conference consisted of 12 PDH sessions in two tracks, and a variety of topics including in Transportation, Coastal Engineering, Water Resources, Planning, Infrastructure, Geotechnical Engineering, Surveying, Construction, and Ethics.

The conference opened with an overview of the Section's 2017 Infrastructure Report Card by Janet Evans (Volkert), who was instrumental in generating a document that is so critical to our society and State. Thursday's session also included a lunch keynote address by DOTD Deputy Secretary Eric Kalivoda on the current condition of our highway infrastructure, and the funding challenges associated with maintaining the State's highways and bridges. LAPELS Board member Richard Savoie also gave a lively ethics presentation on Thursday afternoon, which included real examples of ethics rules violations and the consequences associated with those violations. Thursday's technical sessions included presentations on automated vehicles, the Port of Plaquemines, and the deepening of the Mississippi River navigation channel.

The Thursday session also included an evening crawfish boil social. This was an opportunity for everyone to relax after a full day of workshops and events and enjoy some delicious boiled crawfish! Friday's technical sessions included presentations on the North Lafourche Levee District, the Construction Management At-Risk delivery model, and the costs and consequences of bad roads. Friday also featured the 2018 General Membership Meeting, which was conducted by ASCE Louisiana Section President Malay Ghose Hajra. This meeting also included a lunch and presentation of awards. The newly appointed Louisiana Section Life Member recipients were honored, and as he does every year, Jerry Klier presented the annual Distinguished Civil Engineering Senior Awards five graduating student.

Ben McArdle, PE introduces Akhil Chauhan, Pricipal ITS/Traffic Engineer, Arcadis

Construction Management at Risk technical session

Eric Kalivoda, PhD, PE of DOTD gives keynote speech at the Thursday luncheon.

Advocacy Captain Nedra Hains, A.M.ASCE is ready to recruit Key Contacts at the Louisiana Section 2018 Spring Conference.

From, April 26-27, 2018, the Louisiana Section aimed to ensure it's Members joined ASCE's Key Contact Program. During their 2018 Spring Conference hosted by the Baton Rouge Branch members were encouraged to sign up by Advocacy Captain Nedra Hains, A.M.ASCE and also offered a chance to win a Yeti® cooler. The lucky winner was new Key Contact, Butch Ford, PE, M.ASCE. Welcome to all our new Key Contacts in Louisiana!

Let the crawfish commence! Beau Tate, PE (right)

Blake Roussel, PE and Jeff Decoteau, PE connect with friends at the crawfish boil

Ronnie Schumann, PE and Ali Mustapha connect with friends at the crawfish boil

Khali Cohran, PE organizer of the Spring Conference, enjoys the crawfish boil with his family

Life Member Awards:

Acadiana

Andre Montagnet, PE, LS, M.ASCE

Dietrich Jessen, JR, PE, M.ASCE

Thomas David, JR, PE, M.ASCE

Baton Rouge

James Simmons, PE, M.ASCE

Roy Waggenspack, PE, M.ASCE

David Jessup, PE, M.ASCE

David Burkholder, PE, M.ASCE

Stephen Brasuell, PE, M.ASCE

Glenn Hulin, PE, M.ASCE

New Orleans

Gerald Preau, PE, M.ASCE

Zolan Prucz PhD, PE, M.ASCE

Robert Massa, JR, PE, M.ASCE

Tyau-Da Huang, PhD, PE, M.ASCE

Herbert Miller, PE, F.ASCE

John Grieshaber, PE, M.ASCE

Shreveport

James Sides, JR, PE, M.ASCE

Neil Rasmussen M.ASCE

Oliver Underwood, JR, PE, M.ASCE

L-R: Malay Ghose Hajra, PhD, PE; Guillermo J Rincon, PhD., PE; Enrique J. La Motta, PhD, PE; award winner Christian McClung; and, Donald E. Barbe, PhD, PE

Jameese McCray, Joshua Olivier, Taylor Watts, and Joshua Ridley, with Jerry Kleir, PE

AMERICAN SOCIETY OF CIVIL ENGINEERS
LOUISIANA SECTION
DISTINGUISHED CIVIL ENGINEERING SENIOR STUDENT
FOR CALENDAR YEAR 2018

Joshua Paul Ridley
Louisiana Tech University

Joshua Paul Olivier
Louisiana State University

Taylor N. Watts
McNeese State University

Jameese Kiana McCray
Southern University

Christian P. McClung
University of New Orleans

Darby Elizabeth Elwood
University of Louisiana at Lafayette

On Wednesday, March 14, 2018, 210 ASCE members from 49 states, DC and Puerto Rico arrived on Capitol Hill to advocate for infrastructure and the civil engineering community. The Louisiana Section Team was able to engage in discussions about infrastructure needs that affect the United States and the State of Louisiana. Nedra Hains, Ken Perrett, Beau Tate and Kirk Lowery engaged with the staff of Senator Kennedy, Senator Cassidy, Representative Scalise, Representative Graves and personally with Representative Higgins. Armed with issues briefings from the ASCE Government Relations team, and insight from keynote speakers, Fly-In attendees spent Wednesday afternoon advocating for aviation, water and water resources infrastructure as well as urging Members of Congress to draft a comprehensive infrastructure bill. Additionally, the Louisiana Section Team distributed the 2017 Report Card for Louisiana Infrastructure.

As with any plan to better address infrastructure issues, the main question is how to fund the various infrastructure programs. This similar question, today being addressed by Louisiana's own Legislature, is not an easy one to answer. ASCE's 2017 Infrastructure Report Card http://www.infrastructurereportcard.org/, rates the overall condition of the nation's infrastructure a "D+," with an investment gap of $2 trillion. An economic study released last year found that the U.S. is on track to invest only half of what is needed in infrastructure over the next decade. This underinvestment will cause our infrastructure to further degrade, resulting in a loss of 2.5 million jobs and $3.9 trillion in GDP by 2025. And it will cost American families $3,400 a year – $9 a day.

L to R: Kirk Lowery, PE, Blake Schindler - Policy Advisor, Ken Perret, PE, Beau Tate, PE and Nedra Hains (not pictured) visit with Senator Cassidy's office

ASCE admittedly has no "silver bullet" to make our infrastructure whole; however, during the meetings with our representatives the National Report Card was referenced. Some of the key talking points that were discussed follow:

- ASCE supports President Trump's infrastructure Proposal. We fill legislation should be enacted to fix the Highway Trust Fund by increasing motor fuel tax and providing sustainable funding for the federal surface transportation program. Also discussed was fully funding existing authorized programs to improve infrastructure such as, the National Dam Safety Program, the National Levee Safety Initiative, the USACE Civil Works Projects, and the USDOT's Capital Investment Grants for Transit. More obvious and ongoing discussions centered around streamlining the federal permitting and approval process where appropriate.
- According to the American Water Works Association $1 trillion will be needed to maintain and expand nationwide drinking water service demands over the next 25 years. U.S. Environmental Protection Agency's (EPA) estimates that $271 billion is needed for nationwide wastewater infrastructure over the next 20 tears. Securing the required funding for the Water Infrastructure Now Act will provide a new and efficient tool to leverage limited federal resources and simulate additional investments in drinking water and wastewater infrastructure. A five-year authorization of $1 billion ($200 million/year) will leverage $50 billion in new funds for drinking water and wastewater infrastructure. ASCE supports Securing Required Funding for Water Infrastructure Now (SRF WIN) and urged our members of congress to do the same.
- The Water Resources Development Act (WRDA) of 2018 is seeking reauthorization. Congress has been authorizing WRDA on a two-year cycle. ASCE strongly urges Congress to Reauthorize the National Dam Safety Program, the National Levee Safety Initiative, which will expire in 2019. We also ask Congress to appropriate funds for inland waterway projects and accelerate the process put in place in 2016 to fully appropriate funds collected by the Harbor Maintenance Trust Fund every year for their authorized purpose.
- A final issue that was discussed with Louisiana's delegation was the reauthorization of the Federal Aviation Administration, which has been operating under extension since 2015. ASCE also supports the increase in funding for the Airport Improvement Program and raising the cap on the Passenger Facilities Charges. Increasing these funding sources will provide the ability for long-term planning and modernize our aviation system for the 21st century.

During Tuesday's programs members received advocacy tips and tools from Brad Fitch, CEO of the Congressional Management Foundation and got an insider's look at the various infrastructure proposals being debated by Congress from Jeff Davis, Senior Fellow and Editor, Eno Transportation Weekly at The Eno Center for Transportation.

Undersecretary for Transportation Policy Derek Kan kicked off the Wednesday morning program with a discussion of the Trump Administration's infrastructure plan, and how the USDOT is progressing on a variety of issues including streamlining project decision making. Ken was followed by Reps. Garrett Graves (R-LA-5) and Elizabeth Esty (D-CT-5) who provided insights on what legislators

hope to hear from constituents and how best to persuade their colleagues to support infrastructure funding.

In the end, our ASCE delegation reminded the representatives that they were elected to find the answers and to reach out to our members to help find solutions. Ultimately, they will and should be held accountable for their action/inaction. If you would like to help or join the Louisiana Government Relations Committee, please contact the editor, our president or the government relations chairman, Kirk Lowery. We need volunteers and could use assistance from engineers all over the state.

L to R: Beau Tate, PE, Kirk Lowery, PE, Rep. Garret Graves, Ken Perret, PE, and Nedra Hains

Ken Perret, PE, Marci Smith - Policy Advisor Senator Kennedy's office, Nedra Hains, and Beau Tate, PE

Left: Ken Perret, PE and far right: Kirk Lowery enjoy the first night dinner

Jeff Duplantis, PE and Beau Tate, PE catch up at the opening night dinner

ASCE-COPRI Louisiana Chapter News

By Venu Tammineni, PE, Director - Communications

COPRI COAST, OCEANS, PORTS AND RIVERS INSTITUTE Louisiana Chapter

The Louisiana Chapter of the American Society of Civil Engineers (ASCE) Coasts, Oceans, Ports, and Rivers Institute (LCOPRI) is continuing to promote membership, professional development, and visibility throughout the State of Louisiana.

Annual Technical Seminar

LCOPRI held its annual full day technical seminar on April 5, 2018 at the Lod Cook Conference Center in Baton Rouge, Louisiana. Speakers addressed topics on Coasts, Oceans, Ports and Rivers starting with Brad Inman, Chief of the Projects and Restoration Branch for the United Stated Army Corps of Engineers, New Orleans District who provided an overview of the issues that face the Mississippi River and the USACE's perspective of the management of this critical resource. Gary LaGrange, Executive Director of the Ports Association of Louisiana gave us an update on the Louisiana port infrastructure. Barry Keim, PhD and Professor in the Louisiana State University (LSU) Department of Geography and Anthropology and who also serves as the Louisiana State Climatologist, along with his colleague Vinny Brown examined some of the extreme weather events we have seen in Louisiana over the last couple years and their impacts to infrastructure. Glenn Ledet, Jr., Assistant Administrator of the Coastal Protection and Restoration Authority's Operations Division presented an overview of CPRA operations and hurricane protection in coastal Louisiana. Chip Kline, Deputy Executive Assistant for Coastal Activities to Governor John Bel Edwards provided an update on the Louisiana coast. The conference was well attended by academicians, consultants, port and agency representatives.

Brad Inman Providing an Overview of the MR&T System

Gary LaGrange Presenting on Louisiana Port Infrastructure

Barry Keim, PhD and Vinny Brown Discussing Extreme Weather Events in Louisiana

Glenn Ledet, Jr. Presenting Levee Armoring as part of the HSDRRS

Chip Kline Providing an Update on the Louisiana Coast

Seminar Attendees Enjoying Information Presentations and Discussion

Paul Tschirky, PhD, PE Presenting Scholarship Award to Matthew Thomas

The annual L.COPRI Scholarship Award was presented to Matthew Thomas, an undergraduate student at LSU with Civil Engineering major. He grew up in Houma, Louisiana and believes in the idea of having a working coast while saving the environment. His scholarship essay spoke of the cultural value of the "weekend traditions" along the Louisiana coast. Thomas says "I hope to be part of that process, to show that humans and nature can both prosper in Louisiana".

Other Information

For more information on all COPRI conferences, please visit http://www.asce.org/coasts-oceans-ports-and-rivers-engineering/coastal-engineering-conferences-and-events/.

The activities of L.COPRI include seminars, workshops and other activities to benefit all ASCE and COPRI members. One does not have to be an engineer to join COPRI. These Institutes are formed for the benefit of ASCE and non-ASCE members to participate and interact with other professionals interested in coastal, oceans, ports, and riverine efforts in Louisiana. If you have any questions or to add your name to our mailing list, please contact Venu Tammineni, at LCOPRI@yahoo.com.

ASCE-T&DI Louisiana Chapter News

By Michael Paul, PE - Newsletter Editor

Louisiana State Science and Engineering Fair

In continuation of our efforts to promote interest in transportation planning and engineering, the T&DI Louisiana Chapter contributed to the 2018 Louisiana Science and Engineering Fair held on March 20th and 21st at the Royal Cotillion Ballroom at the LSU Student Union. The State is divided into 12 Regions and each region holds a Science Fair early in the year. The top winners from each Region can participate at the State level. The Judges for the transportation-related exhibits consisted of and T&DI Executive Committee members Gavin Gautreau, PE, Joffrey Easley, PE, Dan Aucutt, PE and Michael Paul, PE The special awards winners for the Junior and Senior Divisions are shown below.

Looking Ahead

The intent of T&DI is to promote transportation and development as a career path, and to provide training and networking opportunities for all professionals involved in transportation projects. If you are interested in co-sponsoring a seminar at your branch, the T&DI Louisiana Chapter has prepared a Seminar Coordinator's Check List to assist you in your preparation Contact Bill Temple, PE, at btemple@caal.org for a copy of the checklist. Our seminars are two hours in length and are typically presented from 5:30-7:30 pm in either the New Orleans or Baton Rouge area. We have also presented out-reach seminars with the ASCE Acadiana Branch and Shreveport Branch. We are open to co-hosting seminars in additional Louisiana cities if requested. In keeping with the intent of the Institute to provide training and networking opportunities for all professionals involved in transportation projects, the Chapter is planning the following future seminars:

- Ethics
- Historic Louisiana Bridges
- Mitigation Banking
- Green Infrastructure: Integrating Infrastructure Needs
- New Orleans Armstrong Airport
- Bridge Approach Slabs
- Highway Safety Seminar - to be hosted in North Louisiana
- Modern Survey Techniques and Laser Scanning

Junior Division (Grades 6-8):

1st Place: Josephine Day (left) "Length and handle of keel reducing rocking time"

2nd Place: Collin D. Null (right) "Best Rocket Design for Distance"

Senior Division (Grades 9-12):

1st Place: Anna LeJeune (left) and Maryn Matthews (center) "The Effects of Pitch on Propeller Thrust"

2nd Place: Corrine Hutchinson (right) "Contributing Factors of Louisiana Teenage Driver Injury Levels in Motor Vehicle Crashes"

Louisiana's Civil Engineers Construct History: McNeil Street Pumping Station

By Tonja Koob Marking, PhD, PE

Tonja Koob Marking, PhD, PE

The McNeil Street Pumping Station, formerly known as the Shreveport Water Works Company and the McNeil Street Water Plant, provided potable water for the City of Shreveport for over a century. Contractor Samuel R. Bullock and Company constructed engineer E.F. Fuller's design in 1887, making it the second water treatment facility in Louisiana. Civil engineer J. N. Chester supervised a major plant upgrade from 1899 to 1912, with improvements including steam pumps, boilers, and other equipment that continued in service for more than eighty years. Over its service life, the plant evolved from a private franchise providing a service and product to its community to a public utility owned and operated by the community government.

The treatment facility was an early adopter of treatment technology. It began filtration in 1889 with rapid sand filtration just 5 years after that technology's invention. Sodium hypochlorite disinfection started in the U.S. in 1908 and was in use at McNeil by 1910. Liquid chlorine disinfection first appeared in the U.S. in 1913 and at McNeil in 1914. When McNeil installed ozone disinfection in 1984, only 25 water treatment plants in the U.S. were using that new technology.

In 1980, the McNeil Street Pumping Station received Register of Historic Places status by virtue of its uniqueness in then-existing water treatment plants. Its citation read, "The facility is unique because its physical plant and its now unused but still extant *in situ machinery illustrate the history of a municipal water works from the nineteenth century to the present."*

The American Waterworks Association named the McNeil Street Pumping Station a Historic American Water Landmark. ASCE designated it a National Historic Civil Engineering Landmark as a "self-contained lesson in the history of municipal water system development. From high-volume pumping technology to water filtering and disinfection, the pumping station helped introduce or refine key technologies that were central to the evolution of America's urban water supply."

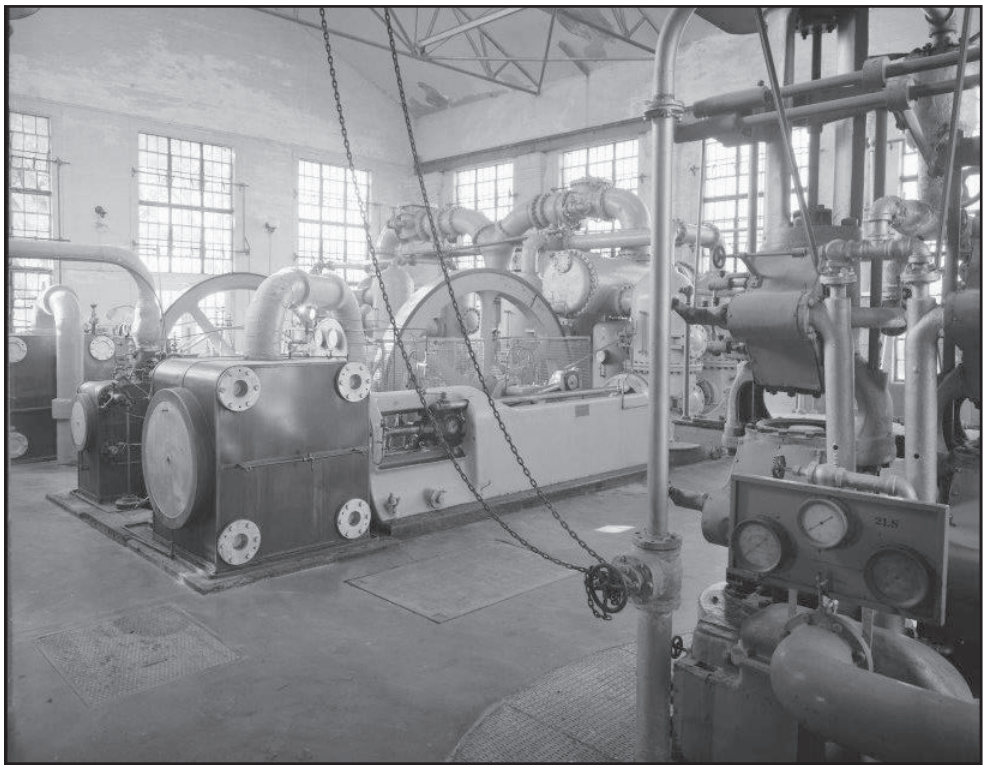
McNeil Street Pumping Station

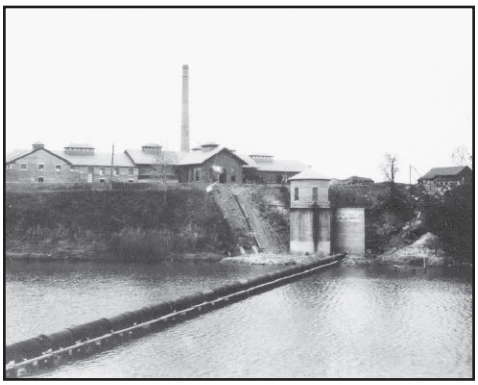
Completed: 1887

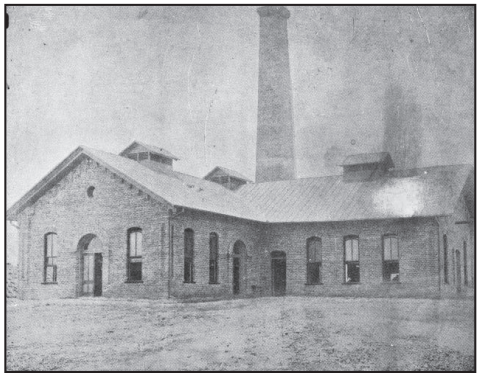
Years in Operation: 106

Original Owner: Shreveport Water Works Company

Engineering Significance: Last facility in the U.S. to use steam power to distribute water to a major city. As an early adopter, its equipment illustrated the history and development of water treatment technologies







DEFENDING THE ROLE OF THE ENGINEER

By Deborah Ducote Keller, PE

Deborah Ducote Keller, PE

The ASCE Louisiana Infrastructure Report Card 2017 received unexpected publicity in March 2018. It began with WVUE-FOX8 television in New Orleans contacting national ASCE for a local contact to interview about the condition of the Louisiana's infrastructure, which garnered a D+ overall on the 2017 report card. The hitch was that the on-camera interview had to be taped locally by 7 p.m., since the story was airing on the 10 p.m. newscast that same night.

National ASCE contacted Kirk Lowery, PE past-president of the Baton Rouge Branch of the Louisiana Section, who served on the 2017 report card review committee. It was impossible for him to be in New Orleans that evening so he called me. I had chaired the Ports and the Inland Waterways categories and knew the process and effort that produced the report card under the direction of chair, Kam Movassaghi, PhD, PE and his co-chair, Jan Evans, PE, neither of whom live in New Orleans.

The reporter, Ryan Naquin, surprised me by having read the entire Louisiana Infrastructure Report Card 2017 report. He asked valid questions on and off camera and was sincere in his concern for our roads and bridges, especially. It was free publicity for our state report card and everyone was happy. However, this story didn't end with the broadcast, which was an excellent combination of video and comments from other sources supporting the ASCE findings on roads and bridges.

You can imagine our surprise when columnist, Dan Fagan, wrote his article two days later for The Advocate New Orleans edition. The headline was, "Beware of Warnings of Roads 'Crisis'. He accused both ASCE and the Louisiana Good Roads and Transportation Association as standing to benefit financially if the state gas tax increases passes. He insulted the integrity and professionalism of ASCE stating, "But what else would you expect from an organization representing companies standing to make millions from raising a gas tax?"

While most of our ASCE leadership does not receive the New Orleans edition of The Advocate, I do. With the assistance of ASCE and several of those who worked on the 2017 report card committee, we spent our day emailing versions of a response letter that Kam Movassaghi, PhD, PE could sign and submit to the editor of The Advocate.

Likewise, Ken Perret, PE, President of the Louisiana Good Roads and Transportation Association, also defended ASCE and the work of the integrity of the report card committee members.

Fagan's article was an affront to our profession, but our honor and professionalism and commitment to public safety shined through his yellow journalism. Apparently, he did no research and merely wrote his own biased opinion in reaction to an excellent news story by Ryan Naquin.

Below are the links to see the video, read the Fagan article and see the letters to the editor signed by Movassaghi, PhD, PE and Perret, PE so that you, too, can inform any mis-informed people who may ask you about the ASCE Louisiana Infrastructure Report Card 2017.

DEFENDING THE ROLE OF THE ENGINEER

LINK FOR VIDEO RYAN NAQUIN WVUE FOX 8
http://www.fox8live.com/story/37761523/gas-tax-increase-a-possible-fix-for-louisianas-poor-ranking-infrastructure

LINK FOR DAN FAGAN ARTICLE
http://www.theadvocate.com/baton_rouge/opinion/article_7e3df8e2-2c61-11e8-a9c1-abbe7e2601b3.html

LINK FOR KAM MOVASSAGHI, PHD, PE LETTER TO EDITOR
http://www.theadvocate.com/baton_rouge/opinion/letters/article_9e36a9dc-2dfb-11e8-a1f5-2bea1a964673.html

LINK FOR KENNETH PERRET, PE LETTER TO EDITOR
http://www.theadvocate.com/baton_rouge/opinion/letters/article_ac506d18-2df7-11e8-8e9c-63f01a4a8475.html

Deborah Keller, PE *is the CEO of Deborah D. Keller and Partners and is one of the Assigned Directors for the Louisiana Section of the American Society of Civil Engineers.*

How ASCE Protects Members' Privacy

By Deborah Ducote Keller, PE

Remember when privacy meant just not listing your phone number and address in the telephone directories? It certainly has morphed into a major issue both personally and professionally. Social media and computer devices loaded with apps you chose, and some hidden apps you don't know about, have created an industry centered on capturing mega-data.

This massive amount of information on millions of people can undergo targeted analytics that can extract a profile of you, your habits, and your consumer preferences that you aren't even aware of. That identity profile can then be used for profiling you as a consumer, as a voter, and any other category someone is willing to pay for in order to find you. This provides powerful information on how to best influence your choices, opinions, and perspectives on just about everything. It can also be sold for mailing, emailing, and calling you because your profile matches a targeted market.

Keenly aware of privacy, ASCE implemented new and more restrictive rules regarding use of the Regional, Section, and Branch membership databases. This became effective January 1, 2018.

As the ASCE Louisiana Section Membership Chair, I had to understand and agree to the terms of the new ASCE policy and sign the ASCE agreement form. As required, it was then submitting to the ASCE Louisiana Section President before I could access the Louisiana membership database. The Section President had to do the same, as well.

This new policy applies to any member who requests membership data information.

The Section is held responsible for the actions of its members regarding compliance with the use of the membership database.

The ASCE membership database contains your membership number, name, credentials (EI, PE, PhD, etc.), email address, phone number, job title, date of joining and last renewal date, and which ASCE Institutes you have selected. For student members, it also includes an anticipated graduation date and the university attending.

These are the terms listed on the ASCE form:

1: ASCE membership data is the sole property of ASCE. ASCE at all times retains exclusive ownership rights of all data. Membership data must be held secure and in strict confidence and may not be shared with anyone, in whole or in part, except as expressly authorized herein. It is to be used only for official ASCE Region, Section, Branch and/or Student Chapter business.

2: This data may not be duplicated, transferred, copied, scanned, keyed, reused, provided, sold to anyone, member or nonmember, or distributed for any purpose other than official ASCE business. In the event that the authorized use requires the creation of a print or electronic copy of this data (in whole or in part), Requestor agrees to promptly destroy any and all copies upon completion of the authorized use.

OPTION B only - Read additional information if submitting as a Targeted Account Holder.

2 a) Access to the membership database for the Region, Section and/or Branch is authorized solely for TARGETED DATA (i.e. monthly new member reports and/or dropped member reports).

OPTION C only - Read additional information if submitting as a One-Time Use Request

2a) Access to the membership database for the Region, Section and/or Branch is authorized solely for a ONE TIME USE report request.

3: ASCE will provide specific membership data to the Regions, Sections, and Branches to conduct the typical business of the Region, Section and or Branch. Questions regarding appropriate mailings or use of lists should be directed to the Member Champions contact at 1-800-548-2723, ext. 6121.
a) Examples of "typical business" include but are not limited to: sending newsletters to Region, Section and/or Branch members, marketing Region, Section, Branch, and/or Student Chapter services and products, informing members of Region, Section, Branch and/or Student Chapter Board actions, networking, etc.
b) Examples of "atypical business" include but are not limited to: giving/selling/bartering the list to anyone outside the Region, Section, Branch, and/or Student Chapter for any reason, providing the lists to individuals for direct mailings relating to an ASCE election or for any other personal use, sending information that conflicts with ASCE Policy Statements, etc.

4: The Region, Section, Branch and/or Student Chapter shall not use ASCE's name, emblem or logo to promote any unofficial/inappropriate product or program.

5: The Region, Section, Branch and/or Student Chapter must not use membership data that is older than 30 days.

6: The username and password assigned shall be for use solely by the person listed on this form and may not be shared with any other person for any reason. Membership data is to be downloaded only by the person listed on this form as recipient of membership data. The signor assumes the responsibility of proper use of the information contained in the database, as stipulated in these rules. Information contained in the database may be shared with other Region, Section, Branch and/or Student Chapter officers of the subscribing Region, Section, Branch and/or Student Chapter solely as needed in connection with the authorized use, and provided that any recipient is cognizant of and agrees to adhere to these rules.

7: When distributing electronic mails to multiple ASCE members the sender must protect the privacy of those addresses by placing the addresses in the blind carbon copy ("Bcc…") field of the email address form.

8: ASCE shall not be liable for any damages or loss sustained as a result of the use or nonuse of the Records. 9: The Region, Section and/or Branch shall assume sole responsibility for any liability from any third-party claim arising from or in connection with any violation of these rules by the Region, Section, Branch and/or Student Chapter; or from any negligence or misconduct by the Region, Section, Branch and/or Student Chapter and its agents or representatives in connection with the use of this list.

Please discuss these new requirements with our Section President regarding submitting the required form for accessing the database. As membership chair, I am only allowed to the provide the membership contact information to those who have a completed form on file with the Section President.

ACADIANA BRANCH

By Jared Veazey, PE, Branch President

I hope everyone had a safe and happy Mardi Gras. I would like to thank Jovan Tatar, PhD, Professor of ULL for presenting for his presentation at the Acadiana Branch February Luncheon. Dr. Jovan Tatar presented a summary of his Structural Engineering Research. The presentation was informative and technical in nature.

I would also like to thank Mr. Walter C. Catlett, PE, from the American Concrete Pipe Association (ACPA) for presenting his presentation at the Acadiana Branch March Luncheon. Mr. Catlett presentation covered Drainage Pipe Instillation. I would like to thank Designprecast for sponsoring the March Luncheon. The Acadiana Branch has received two nominations to fill the role of Treasurer for the coming year, voting for new officers will be held at the May Luncheon.

Three scholarships were awarded in March to the University of Louisiana at Lafayette and McNeese University Student Chapters. Two of the awardees were from University of Louisiana at Lafayette, Miss. Mary Grace Sherlock and Mr. Alex Spikes. The other awardee was from McNeese University, Mr. Caleb Greathouse. Congratulations and great work to all the awardees.

Also in March, the University of Louisiana at Lafayette Student Chapter hosted the annual Deep South Conference. The event was well attended by multiple universities. The ULL Student Chapter did an outstanding job of coordinating and hosting the different competitions, such as concrete canoe, steel bridge, and surveying.

In April the ULL Student and McNeese Student Chapters held an event Clean the Cost 2018. The two student chapters submitted and received a grant to go to Rockefeller Wildlife Refuge and remove trash and debris as well as donate and furnish several garbage receptacles. This event was well attended. Thank you to all those who volunteered for this event. I would like to give a special thanks to the Boy Scout Troop 224 for dedicating there time to help with this event. Also at the beginning of May the annual crawfish boil provided in a joint effort with ASCE, LES, and IEEE was very well attended.

Customarily, the Acadiana Branch winds down branch activity during the summer months as many of our members enjoy this time on family vacations. The Acadiana Branch will be having a luncheon in May, before winding down for the summer. This luncheon will host the elections of new officers for next year. In September the Acadiana Branch will host a luncheon where Mr. Will Cenac, PE will be installed as the new ASCE Acadiana Branch President along with installation of all the new officers.

BATON ROUGE BRANCH

By Blake Roussel, PE, Branch President

The Baton Rouge Branch had a fantastic Spring of 2018 and is eagerly awaiting summer activities. Between Bridging the Gap, E-Week, our monthly luncheons, and the Spring Conference, the activity level of our members and board of directors has been high! The Bridging the Gap event held at Sullivan's Steakhouse on February 15 was very successful. We received extremely positive feedback about the topic, "Managing Efficiency and Productivity from All Levels of the Org Chart", the panelists, and the discussions. Our panelists included Rose Hudson, President/CEO of Louisiana Lottery Corporation, Karen Holden, PE, CEO of Providence Engineering, Chad Lynch, Director of Planning and Construction, Ascension Parish School Board, and Jamal Steib, EI, Civil Engineer, Forte and Tablada.

The Baton Rouge Branch participated in the annual LES E-week celebration at Juban's Restaurant on February 22, 2018. We celebrated the accomplishments of numerous local engineers, engineering students, and of course the LES MathCounts participants. The ASCE Baton Rouge Branch presented a $1,000 Baton Rouge Branch Scholarship award to Joyner Deamer. Joyner was a well deserving candidate from Southern University. Joyner's impressive GPA as well as his long list of academic related extracurriculars helped his resume rise to the top of a highly qualified list of 22 candidates!

The branch's March luncheon was held at Fleming's Prime Steakhouse on March 15. The Governor's Assistant for Coastal Activities, Johnny Bradberry, was our guest speaker. Over 100 attendees listened as Bradberry presented a coastal update. He discussed Louisiana land loss, its causes and impacts to our state and nation. He also provided an update about CPRA's Master Plan and briefed the group on the Outcome Based Performance Contracting Initiative. Thank you Johnny Bradberry!

We were also pleased to present a 2nd scholarship to a worthy local engineering student during the March luncheon. The Melissa Young Doucet Memorial Scholarship was awarded to Cameron Markowitz in the amount of $1,000. Cameron is an engineering student at Louisiana State University with a 4.0 + GPA! She is a very determined individual and student that will not let anything get in her way of accomplishing her goals. Congratulations Cameron!

BATON ROUGE BRANCH, CONT.

The Louisiana Section Spring Conference was hosted by the Baton Rouge Branch this year from April 26-27. The topics were fascinating, the presenters were prepared, and the facility was first class! Many thanks go out to the conference planning team of Past President Kahli Cohran, Director of Programs Molly Bourgoyne, Southern University Practitioner Advisor Nedra Hains, and two Civil Solutions Group employees Erica Gomer and Dymaria Williams. The keynote speaker, Eric Kalivoda, PhD, PE presented an overview of DOTD's current program and discussed the many existing funding challenges that DOTD is tasked with overcoming. Alternative funding options were frequently mentioned as potential solutions while attempting to address the condition of our state's infrastructure.

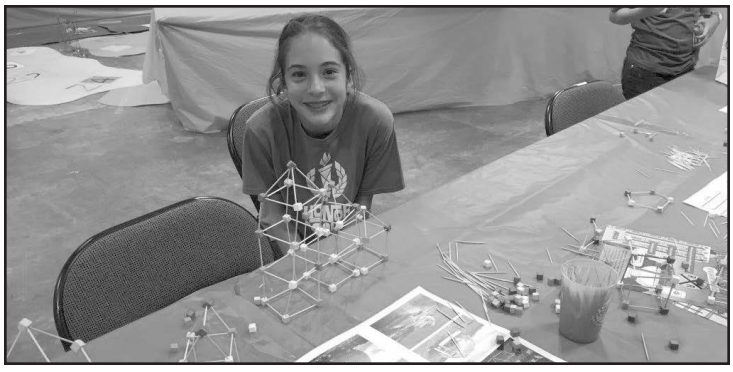
This summer's upcoming Engineer It! schedule has been set. Engineer It! will be held at the Louisiana Arts and Sciences Museum on May 19, July 21, and August 18 from 10 am – 12 pm. Volunteers will display their exhibits showcasing different aspects of civil engineering such as sediment transport through a river stream and the effects of hurricane wind loads on buildings among others. ASCE's Dream Big movie, narrated by Jeff Bridges, will be playing in the LASM iMAX theater concurrently. Please come out and bring the family as we continue our efforts to promote STEM subjects to our local youth! If you are interested in helping to volunteer, please email president@ascebr.org.

SHREVEPORT BRANCH

By Matthew Redmon, PE, Branch President

The Shreveport Branch of ASCE partnered with the local LES chapter to introduce children to engineering at ArtBreak 2018. ArtBreak is an annual art festival that showcases the artistic talents of local students. It also has more than 50 hands-on STEAM learning activities free to the public. ArtBreak is the perfect place to add Art to STEM in an effort to show how art and science are better together.

We provided an activity that allowed children to be creative while learning about structural stability. The guided portion of the activity was a geodesic dome constructed out of toothpicks and foam cubes. It didn't take long before the children started using their imaginations and "dreaming big." The students built everything from windmills to Ferris wheels to abstract sculptures. The children enjoyed the activity, and our booth stayed busy all weekend.



We were also able to spotlight Shreveport's own historic Waddell A-Truss Bridge. The bridge spans Cross Bayou and will hopefully be an ASCE Historic Landmark in the near future. There is an A-Truss Bridge committee consisting of Pat Wilson, Albert Dumas, Skip James, Elba Hamilton, Tim Wright, Liz Swaine, Matthew Redmon and a few others. We meet once a month to discuss ways to increase public awareness for the bridge and paths to fund survey, restoration and future uses of the bridge. Albert Dumas has the scale model of the bridge. It was originally purchased to take to Sci-Port to teach the children about truss bridges and how forces are distributed. Albert Dumas displayed a scale model of the bridge and discussed its past use and future possibilities. A lot of attendees were surprised to find out that this historic gem was within walking distance from the site of ArtBreak. ASCE Shreveport Branch also had a display at the McNeill Pumping Station birthday party this past weekend.

Overall, it was a successful event, and we look forward to participating in the future. The children were excited to see what they could build, and it gave us a chance to talk about engineering with children of all ages.

NEW ORLEANS BRANCH

By Karishma Desai, PE, Branch President

We are already knee deep into 2018, but when last I wrote it was still 2017. So … Happy New Year!

The ASCE New Orleans Branch hosted our 16 January Luncheon at the Heritage Grill. Our guest speaker, Maj.-Gen. (Ret.) Maynard J. "Sandy" Sanders, executive director of the Plaquemines Port Harbor & Terminal District in Belle Chasse, presented "Plaquemines Port: Gulf Gateway to the Heartland of America." He provided insight on his vision and the progress toward making the Plaquemines Port an international opening to ship vessels, commerce, and jobs.

Sure, there's Presidents Day, Administrative Professionals' Day, and Boss's Day, but engineers get an entire week to celebrate our profession! I am sure you are aware that 18 to 24 February 2018 was National Engineers Week (E-Week). But did you know that every year E-Week encompasses February 22, the birthday of George Washington? The former president was considered the nation's first engineer for his surveying capabilities.

For E-Week, Stephanie Bayne, PE, director-at-large and chair of outreach activities for ASCE, hosted a booth and activities at the University of New Orleans on 21 February. Stephanie recruited many ASCE members as volunteers to help her with the planned activities. Stephanie brought back the 'Dream Big: Engineering Our World' movie, created project profile brochures, and she along with her recruits demonstrated wave action to middle and high school students to explain the importance of engineers in protecting our coastlines. The event reached approximately 1,500 middle and high school students. A big thank you to Stephanie, volunteers, University of New Orleans and Core Element for all your efforts in hosting and educating future science, technology, engineering, and mathematics students.

For our 13 March luncheon at Heritage Grill, I invited Mr. William "Bill" W. Gwyn, PE, Chairman of the Board at Eustis Engineering, to present to ASCE's New Orleans Branch. He spoke about allowable differential settlement in both low and high rise buildings, touching on notable New Orleans buildings such as the New Orleans Custom House, Charity Hospital, One Shell Square, and Harrah's Hotel.

The ASCE New Orleans Branch has some exciting talks planned for April and May. Mrs. Deborah D. Keller, PE, of Deborah D. Keller and Partners will present "Engineering – It's a Risky Business," on 24 April at the Metairie Country Club. In May, the ASCE New Orleans Branch will collaborate with the APWA Northshore Branch to host the May luncheon; the topic is St. Tammany Parish's Tammany Trace Project.

President-Elect Rob Delaune, PE, presents Maynard J. 'Sandy' Sanders with an appreciation trophy.

From left, Ayan Mehrotra, PE, Stephanie Bayne, PE, and Sadia Kissoon-Parker, PE, set up the ASCE New Orleans Branch's booth at UNO's second annual Engineers Day.

Karishma Desai, PE presents Mr. Bill W. Gwyn with a token of appreciate from the ASCE New Orleans Branch after his presentation.

Sharon Bradshaw, PE, and Andrew Woodroof, PE, ASCE New Orleans Branch Secretary, demonstrate wave action to New Orleans area high school students.

Ayan Mehrotra, PE and Matthew Thomas engage middle and high school students while demonstrating wave action.

ASCE-SEI New Orleans Chapter News

By Om Dixit, PE, FASCE, F-SEI

The ASCE SEI New Orleans Chapter has been very busy hosting and planning seminars and workshops and volunteer efforts. After hosting seminars in November 2017 and January 2018, SEI NO hosted the following seminars during the past quarter:

On March 7, 2018 the seminar "Structural Strength of Sheet Piles" was presented by Richard J. Hartman, PhD, PE (Hartman Engineering, New York, NY). Hartman, PhD, PE presented two topics. The first was considerations related to bolts used to connect wales and sheet piling in bulkheads. The second was considerations related to selection of sheet piling sections for projects. The presenter also showed two cases involving failure of bolts in bulkheads, one in Pennsylvania and one in Texas. The causes of the failures were discussed and recommendations for future designs were provided. The seminar was attended by 65 members.

On April 5, 2018 the seminar "Strength Design of Masonry" was presented by Richard Bennett, PhD, PE (University of Tennessee, Knoxville, TN). Bennett, PhD, PE reviewed the design assumptions for strength design, and addressed the design of beams, bearing walls, and shear walls using strength design. Practical design methods and tips were provided for each member type, and examples illustrated the design process. The results of each design will be compared to allowable stress design. This seminar provided the attendees with the tools necessary to begin using strength design for masonry and realizing the benefits it can offer. The seminar was attended by 49 members.

The annual David Hunter Lecture for 2018 "Hanging by a Strand: The Challenges of Aging Suspension Bridges" was presented by Barney Martin, PhD, PE (former CEO, Modjeski and Masters, Inc., Parsippany, NJ) on May 9, 2018 at University of New Orleans. Martin, PhD, PE has over 36 years of experience in bridge design and project management. He started his career in New Orleans office and later moved to New Jersey office. Martin, PhD, PE will offer his thoughts and concerns on the changes he has observed in the engineering profession in his 44-year career.

ASCE SEI New Orleans Chapter made donation to the LES Regional MathCounts competition held at University of New Orleans in February 2018 and provided a few volunteers for managing the competition.

The ASCE SEI New Orleans Chapter sponsored awards at Greater New Orleans Science and Engineering Fair (GNOSEF) held in February 2018. SEI NO Chapter provides judges to pick the best projects related to structural engineering. In recent years the number of projects related to structural engineering have grown due to these awards. The award winners were:

Junior Division

The First Place ($100) award was given to Aelia Aladwan of Islamic School of Greater New Orleans for her project "Structural Design of Buildings". The Second Place ($75) award was given to Madison Verbest of John Curtis Christian for his project "Soil Type Effect on Building Stability in Earthquake".

Senior Division

The First Place ($100) award was given to Paola Alarcon of Haynes Academy for Advanced Studies for her project "Strongest Bridge Structure". The Second Place ($75) award was given to Jasmin Elnaggar of Benjamin Franklin High School for advanced Studies for her project "How Coal Ash in Soils affect Strength of Soils".

The awards of $50 were also given to the teachers of the winning project's school for encouraging their students to do a Structural Engineering Project. These teachers were Fatima Babu (Islamic School of Greater New Orleans); Nicole Fabacher (John Curtis Christian); David Prentice (Benjamin Franklin High School), Teresa Burchette (Haynes Academy for Advanced Studies). The teachers of the winning projects are also awarded to encourage more students to Structural Engineering Projects in future Science Fairs.

The committee is looking for good topics and speakers for future presentations. Members with expertise in the field of structural engineering are welcome to join the Executive Committee. For any suggestion and information on joining the Executive Committee, contact Chairman Kabir Mohammed, PE at asceseinola@gmail.com. For adding your name to our mailing list, please visit ASCE New Orleans Branch website at www.asceneworleans.org and add name to the email list. Members will be directed to registration page for preregistration to the event. Members could also follow the activities and news of SEI-NO on Facebook @SEINOCHAPTER.

The committee is looking for good topics and speakers for future presentations. Members with expertise in the field of structural engineering would be welcome to join the Executive Committee. For any suggestion and information on joining the Executive Committee, contact Chairman Mark Castay, PE at MCastay@trcsolutions.com.

Richard J. Hartman, PhD, PE (Left) and Mark Castay, PE, (Seminar Coordinator) at SEI NO Chapter Seminar on March 7, 2018 at University of New Orleans

Richard Bennett, PhD, PE (Left) and William Rushing, PE, (Seminar Coordinator) at SEI NO Chapter Seminar on April 5, 2018 at University of New Orleans

Student Chapter News

LOUISIANA STATE UNIVERSITY

by Lauren Mills
LSU ASCE Secretary

ASCE at LSU participated in the 2018 Deep South Conference at the University of Louisiana at Lafayette in Lafayette, Louisiana this past March. Our competing teams included Steel Bridge and Concrete Canoe, and both worked diligently to complete the respective designs. With the goal of getting more of our ASCE members involved, Josh Olivier and Sydney Sziber (the captains of Steel Bridge) as well as Denzel Flores (captain of the Concrete Canoe Team), made a great effort to guarantee that each participant played an active role in the design and construction processes. For many of our members, it was the first time being involved on either team; as expected this turned out to be a wonderful team building and learning experience. Our very own, Joseph Cotton, earned 1st place for his presentation of his Mead paper. Of course, we are all very proud of our Tigers for both the effort and the outcomes of this year's Deep South Conference; as always we look forward to building an even stronger team next year. We would like to thank our sponsors: Chevron, Louisiana Transportation Research Center, Air Products, Pape-Dawson Engineers, CDI Engineering Solutions, Sigma, ISC, Aucion & Associates, Waskey, ETEC, SJB Group and Trinity Lightweight. This would not have been possible without the continued support of these organizations.

In addition to the conference we are proud to announce that our members will also participate in the Geaux Big Baton Rouge community service event for the sixth year in a row. The ASCE at LSU career fair will be held on April 12th. Many companies as well as students plan to come out and participate in the event. We'd like to thank our president Sydney Sziber and career fair planner Taylor Brignac for helping to keep this event going. This smaller scale career fair provides civil and environmental engineering students with a more personal experience than those on a larger scale would.

Our meetings, featuring guest speakers from FIGG Engineering, SLD Engineering and Surveying, and Dewberry, have been extremely insightful. Members of ASCE at LSU got the chance to visit with Dr. Clinton Willson and tour the state of the art LSU Center for River Studies. Members were also able to interact with each other in the form of a friendly popsicle stick building competition. The winning structure carried the heaviest load out of all of the others! We plan to hold our final general body meeting on April 17th at Mellow Mushroom. As always, we are looking for speakers who are eager to share their experiences to our members here at LSU. Not only does this provide our young engineers with an invaluable networking experience but it also gives a much-needed insight into the professional world we will soon be diving into.

UNIVERSITY OF NEW ORLEANS

By Christian P. McClung, Student Chapter President

ASCE at the University of New Orleans had an exciting semester filled with hard work from all contributors. We participated in the 2018 Deep South Regional Conference hosted at the University of Louisiana at Lafayette this past March. Overall, there were nineteen students who participated in the competitions, which included Concrete Canoe, Steel Bridge, Surveying, the Environmental Quiz Bowl, and finally the Mystery event. This year the mystery event challenged the students to build a boat out of cardboard and race the boat in a pool against the other schools. Our student chapter has grown tremendously and, with collaboration from old & new members, the group faced only a few obstacles in preparation of the conference events. Our new members, who will hold key roles in the future, had the opportunity to gain valuable insight that will benefit the chapter in years to come. ASCE was also recognized for their 2017-2018 Annual Report and received a letter of Honorable Mention acknowledged only by the top third of student organizations.

National Engineering Week was a success at UNO this year. On February 21st, the Engineering Department hosted an event at the University Center in celebration of engineering week. Over 1,000 students from local middle and high schools were invited to see what we as engineers do, and how it is applied. Companies such as NASA and Shell were invited to help us host this event and bring a demographic of their own to showcase how science and engineering affects their line of work. ASCE had the opportunity to interact with the students and contributed to the event by hosting an exciting paper bridge competition. We are optimistic this will generate momentum for more students to enter the Civil and Environmental Engineering field.

As the semester comes to an end, ASCE still has a few items left on the event calendar. On April 19th, we are hosting our Spring Social at Second Line Brewing in New Orleans, Louisiana. We look forward to networking with both professionals and students during this fundraising opportunity. Elections for officer positions are also approaching rapidly. We are currently in the nomination phase and will be holding elections the week of April 9th through the 13th. As always, we are currently looking for local projects and volunteer work that will have a positive outcome on our surrounding community. Specifically, we are looking for projects with design components so we can incorporate our problem-solving skills and innovative thinking as young engineers. Above all, it is imperative for us to reflect on the past year and take note of improvements that will build on our progress of maintaining continuity.

SOUTHERN UNIVERSITY

By Shotel Sims, President Student Chapter

Southern University's Homecoming game was held on Saturday October 7th, despite the threat of Hurricane Nate making landfall in Louisiana. The college of Engineering held its annual Homecoming tailgate, which started the Friday evening and carried well over into Saturday evening. Many other tailgates were held across campus, crowded with students and alumni. There were periods of rainfall throughout the day, but the homecoming celebration continued well into the evening. The annual homecoming parade was to be held on the day of the game, but was rescheduled and held on November 4th.

NOTICE FOR POTENTIAL CANDIDATES TO APPLY FOR VACANCIES ON THE SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY EAST AND WEST LEVEE BOARDS.

The State contact person is Ms. Stephanie Aymond at Stephanie.Aymond@LA.GOV . Applicants need to complete the official application, which can be found at the following link: http://www.coastal.louisiana.gov/wp-content/uploads/2013/09/SLFPAApplication1.pdf. Applicants are needed to fill the following Board vacancies:

The Nominating Committee will be seeking applicants for this year to fill the following vacancies for their term beginning in 2019 and ending in 2023.

A. Non-Resident:

1. **SLFPA –East Board: One (1) Vacancy. A Non-Resident for the East Board means anyone who resides in the State of Louisiana or the United States; but, does not reside in either Jefferson or Orleans Parish in that respective portion of these Parishes that is located on the East side of the Mississippi River or anyone who resides in St. Bernard or Tangipahoa Parishes.**
2. **SLFPA-West Board: One (1) Vacancy. A Non-Resident for the West Board means anyone who resides in the State of Louisiana or the United States; but, does not reside in either Jefferson or Orleans Parish in that respective portion of these Parishes that is located on the West side of the Mississippi River.**

A Non-Resident applicant can apply to both Board's or may choose to apply for only the East or West Board's, subject to the residency requirements.

B. Resident:

1. **SLFPA-East Board Tangipahoa Parish Resident: One (1) Vacancy. The applicant for this vacancy must reside within the boundaries of Tangipahoa Parish.**
2. **SLFPA-West Board Orleans Parish West Resident: One (1) Vacancy. The applicant for this vacancy must reside in that portion of Orleans Parish that is located on the West side of the Mississippi River.**

PROFESSIONAL LISTINGS

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LOUISIANA CIVIL ENGINEER
Journal of the Louisiana Section-ASCE
Rudolph Simoneaux, III, PE
9643 Brookline Ave.
Suite 116
Baton Rouge, LA 70809-1488

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