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Journal of the Louisiana Section

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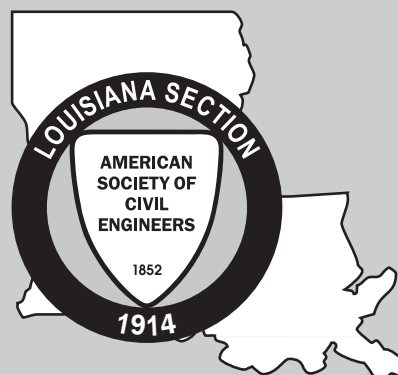


Bulkhead Wall Reconstruction: City Docks, Port of Lake Charles. Berth 9A is east of Berth 9 (Nearmap, 2020)

FEATURES:

2023 Spring Conference

Bulkhead Wall Reconstruction Under Active Transit Shed with Ongoing Cargo Operations



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MAY 2023
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President's Message

By Kirk Lowery, PE, D.GE

After a nice and relatively cool spring, we are heading into our Louisiana hot summer. This past quarter, we have had multiple in-person events with the institutes, the annual Spring Conference as well as the Legislative Fly-in. This summer the next edition of ASCE's Louisiana Report Card should be starting to come together and ASCE is planning to co-host a governor's forum. At this event, potential gubernatorial candidates will be invited and allowed to give a brief introduction. Questions will be asked centered around engineering topics such as energy, infrastructure, resilience, etc. If you would like to help, please get in touch with Dr. Jack Koban at jkoban@fugro.com.

Congratulations to the UNO Chapter's Steel Bridge team for winning First Place in the categories of Overall Performance, Stiffness, and Structural Efficiency and Second Place in Cost Estimation, Lightness, Construction Speed, and Construction Economy at the ASCE Gulf Coast Symposium. They competed against universities from the states of Louisiana, Alabama, and Mississippi in Mobile, Alabama on March 9th through March 11th. Due to the performance at Regionals, UNO Chapter's Steel Bridge team is travelling to San Diego, California for the Steel Bridge Finals in June. I wanted to thank any ASCE volunteers who helped and/or contributed to their success. Put on your calendars for next spring, UNO will be hosting the Gulf Coast Symposium. We will need ASCE volunteers to help with judging, preparations and of course with donations. I ask, especially in the New Orleans Branch, to think about contributing to this event.

The Acadiana Branch hosted the annual Spring Conference on April 27th and 28th. Carolyn Chapman and her volunteers put together an enjoyable and entertaining conference at River Ranch's City Club. I was a bit disappointed almost all the membership did not attend. I realize over the last few years we have had more opportunity to do continuing education on-line, but I am a firm believer of interacting with our colleagues and making new acquaintances. I hope over the next few years our membership will take advantage of the Spring Conference and support the hosting branches. The Acadiana Branch's venue this year was an excellent place to meet, and I cannot say enough of the detail to quality delivered by Carolyn and her people.

ASCE dedicated Louisiana's latest ASCE National Historic Civil Engineering Landmark on May 23rd. The New Orleans Drainage System is the 5th ASCE Landmark in Louisiana. It was designed at the turn of the 20th century and has been integral in New Orleans' survival by maintaining drainage in a city that has very high, intense rainfall events. The dedication was commemorated by Sewer and Water Board of New Orleans (SWBNO) Executive Director – Ghassan Korban, SWBNO Board Member and City Council Member – Freddie King III, USACE New Orleans District Commander – Colonel Cullen Jones, ASCE New Orleans Branch President – Kyle Galloway, Past ASCE National President – Dr. Norma Jean Mattei and ASCE Section Past President and History and Heritage Chair – Dr. Tonja Koob Marking.



Kirk Lowery, PE, D.GE

In this month's journal, a relatively novel approach to reinforcing an existing bulkhead at the Port of Lake Charles is presented. A concrete-filled helical pile and concrete lagging wall system was ultimately designed and installed. To install the wall system required the floor of an enclosed rice storage unit to be opened to allow access to a corroded tieback sheet pile wall. This article provides a short history of the facility along with the challenges faced during the time of construction and with the existing conditions.

Finally, please do not hesitate to contact me with questions or suggestions on how we can support your society interests. Have a wonderful summer.



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SAVE THE DATE!

Call for Potential Speakers and Exhibitors!

We are proud to announce the dates for the 33rd 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 October 4-5, 2023, at the Pontchartrain Center in Kenner, Louisiana. Note, this is a few weeks later than years past!



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

Bulkhead Wall Reconstruction Under Active Transit Shed with Ongoing Cargo Operations

by Nick Pestello, PE, Adrian N. Pearson, MEng, PE, Matthew Trowbridge, PE, SE, PEng, Elie Hasso, PE, Michael Hasen, PE



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Abstract

Ports increasingly have ageing bulkhead walls supporting waterfront facilities. At the Port of Lake Charles, Berth 9 supports a transit shed for storage of palletted, bagged rice. The existing bulkhead wall had a failed tieback system with significant section loss of the steel sheets. Conventional repair or replacement would have been expensive and disruptive to cargo operations, requiring significant demolition and removal of the shed roof. An innovative repair was installed consisting of 24-in.-diameter helical piles providing lateral and axial support for a new concrete wall installed in front of the existing wall. This repair reduced demolition of the shed slab and kept the shed roof intact to maintain dry storage operations during construction. By completing this project, the service life of the terminal was extended, thereby deferring investment in a full wharf and shed reconstruction project. This paper describes the design, procurement, and construction challenges.

Introduction

The Lake Charles Harbor & Terminal District (the District), also known as the Port of Lake Charles (the Port), is a deep-water seaport located in Lake Charles, Louisiana, on the Calcasieu Ship Channel, 34 miles inland from the Gulf of Mexico. The District owns and operates two marine terminals, known as City Docks and Bulk Terminal No. 1. The District also owns and operates two industrial parks known as the Industrial Canal and Industrial Park East. In addition, the District serves as landlord to numerous tenants. The City Docks is a 200-acre facility that serves as the general cargo terminal and provides 12 deep water berths and 10 transit sheds and additional warehouse capacity with more than 1.4 million square feet of covered storage space. Historically, City Docks has moved 500,000 tons of cargo per year, much of which was bagged grain products, specifically Louisiana rice from local farmers and rice mills. This bagged cargo is brought in via truck from local mills then stored in Sheds 9 and 9A before being exported out by ship via the automated terminal or traditional loading methods. Waterfront covered storage space is a critical component in the successful breakbulk operation. See Figure 1 for a view of City Docks.



Figure 1. City Docks, Port of Lake Charles. Berth 9A is east of Berth 9 (Nearmap, 2020)

Berth 9 was constructed as a steel bulkhead circa 1957. Later, a timber wharf was added followed by a transit shed in the early 1960s. Since that time, some components have been upgraded, such as the addition of a concrete deck to the wharf. However, the Berth 9 complex has remained mostly unchanged. Berth 9 has approximately 385 linear feet of berthing area consisting of approximately 624 timber support piles arranged in 48 bents with timber pile cap and stringers supporting an approximate 6-inch-thick reinforced concrete deck. The deck area is approximately 27,260 square feet and includes a metal shed building and not-in-service rails embedded into the topside of the deck. A steel sheet pile bulkhead with a tie rod and wale system runs along the shore side of the dock in approximately 5 feet of water depth, with an additional 10 feet between the water line and deck level. A timber fender system with approximately 48 timber fender piles and timber horizontal members is used for berthing operations. The facility has

approximately seven mooring cleats bolted to the timber bullrail. The adjacent berths are Berth 8 and Berth 9A. See Figure 2 for a typical cross section and Figure 3 for a view inside the shed.

The soil at the shed location is gray to dark gray, very soft to soft organic clay, and clay to about 25 feet with dense to very dense sand below. The thickness of the sand layer varies across the site ranging from about 11 to 29 feet. Standard penetration test N values ranged from 64 to over 100 blows per foot in the upper 15 feet of the sand layer. Cone penetrometer point resistances of over 200 tons per square foot were encountered in each of the four tests performed, with refusal of the penetrometer encountered at two of the test locations at depths of 41 and 46 feet. Below the sand layer firm to brown and gray firm-to-hard over consolidated clay was encountered to 70 feet.

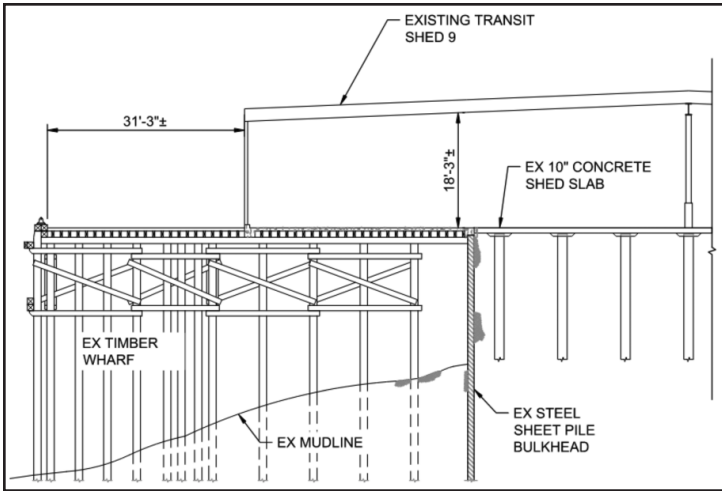


Figure 2: Existing cross section through Berth 9 and Transit Shed 9. Note existing bulkhead within shed footprint.



Figure 3. Photograph inside Shed 9. Note the bulkhead line running from foreground to rear door. Overhead clearance to the rafters from the bulkhead line is 17 ft 8 in

In 1999, the Port made a major investment in the bagged rice operation, investing approximately \$75 million in the construction of a new wharf and transit shed at the adjacent Berth 9A as well as a bagging facility, automated terminal with rail unloading, depalletizers, and two spiral-veyor ship loaders. This automated facility incorporated the existing Shed 9 into the design, making

it a critical storage area and aiding in the success of the overall terminal. In 2016, Moffatt & Nichol conducted a routine inspection of all the City Docks facilities in accordance with ASCE Manual 130 “Waterfront Facilities Inspection and Assessment.” The purpose was to determine and assess the structural integrity of the City Docks and to establish a base condition from which to monitor future deterioration of structural elements. The Berth 9 bulkhead was identified as needing high priority repairs. The wall typically had severe defects, including 100 percent section loss at previous tie-rod locations every eight feet. The steel waler and tie rods were missing over almost the entire length of the bulkhead. In the splash zone, the bulkhead had flaking corrosion on 50 percent of its surface area with 50 percent section loss. Above the splash zone, the bulkhead had 15 percent coating loss with 1/8-in.-deep pitting. Several holes are present with evidence of minor backfill loss at some locations. See Figure 4 for a photograph of the bulkhead. Following on from this routine inspection, in 2018 Moffatt & Nichol conducted a repair inspection. The purpose of the inspection was to record defects with sufficient detail to prepare construction documents for repair.

With the continued need for covered breakbulk storage, the Port approved a project to replace the bulkhead wall. Repair or replacement was needed, but options were limited by access constraints, low overhead clearance in the shed, and the need to keep Shed 9 available for dry storage operations.



Figure 4. Existing steel bulkhead wall at Berth 9. Note failed tie rod/waler and connection of timber pile caps to top of wall

Design Challenges

The Port’s bagged rice operations at Berth 9A rely on Berth 9 for dry storage and trucking. Repairing or replacing Berth 9’s failing bulkhead was essential; however, so was keeping the area operational during construction. This posed two key challenges: the 60-year-old transit shed restricted overhead clearance; and rice operations need uninterrupted, covered storage space on the shed floor.

Conventional solutions, such as building a new bulkhead in front of the existing wall, would have involved extensive demolition and removal of the roof to allow a pile driving rig to install new sheet piles along the entire length of the wall. Removing such a large

portion of the roof of the 60-year-old shed posed the risk of not being able to put it back together. Deconstructing and reconstructing the shed would have required work on the roofing panels, purlins, bracing, rafters, columns, and potentially the column foundations, and the end result would be an only partially repaired 60-year old-shed. Additionally, removal of parts of the roof would cut down dry storage area. At this point, the Port's funds may have been better spent on replacing the entire shed to gain a longer service life. However, full shed replacement would also require reconstruction of the supporting wharf and bulkhead. This meant the Port was potentially looking at a significant investment (~\$50 million) in a shed and wharf reconstruction project. Recall, however, that the Port already invested \$75 million in 1999 on the adjacent Berth 9A with a service life of 50 years. Berth 9 only supports this operation through storage and trucking access, and it does not receive shipments from the water. Therefore, the Port only needed to extend the service life of Berth 9 for 30 years to match Berth 9A, and the only requirement was floor space for dry storage. This meant that the team needed to repair the bulkhead without removing the shed roof.

The existing bulkhead-wharf system posed an additional challenge. The wharf's timber pile caps butt up against the bulkhead sheet piles. With the original bulkhead's tie-rods and waler failed, the lateral earth pressure from the retained soil transfers directly to the wharf. This meant that demolition and construction must preserve load paths to avoid deflection or failure of the bulkhead.

The team designed an innovative bulkhead wall repair solution to address these challenges. Forty-eight 24-inch-diameter helical piles, spaced between existing timber pile caps and tied together by a concrete beam, serve as lateral and axial support for a new concrete lagging wall in front of the existing sheet pile wall. See Figure 4 for a typical cross section. Helical piles are tubular steel casings with a helical plate at the tip that can be torqued into soil, similar to a screw. The helical piles were fabricated in short sections, allowing the use of a low-clearance tractor fitted with a special torque head. Once the lower section was installed, the next section was swung into place, spliced, and torqued down. Installation is shown in Figure 5. The pile would then be filled with reinforced concrete. This allowed pile installation to occur within the 17-foot 8-inch overhead clearance to the rafters. Additionally, the helical piles were driven between the existing timber pile caps and the concrete deck was cast on top. This avoided the need to cut the timber pile caps, which provided lateral support to the existing wall, preserving the load path for lateral earth pressure. Once installed, the helical piles were tied together with a concrete beam and then the new lagging wall was poured.

This solution encased the failing bulkhead wall and provided new vertical and lateral support to the shed and wharf structure, significantly extending the service life of Berth 9. In addition to keeping the shed roof intact, the construction method only required a roughly 10-foot-wide cut in the shed floor, keeping most of the shed open for storage.

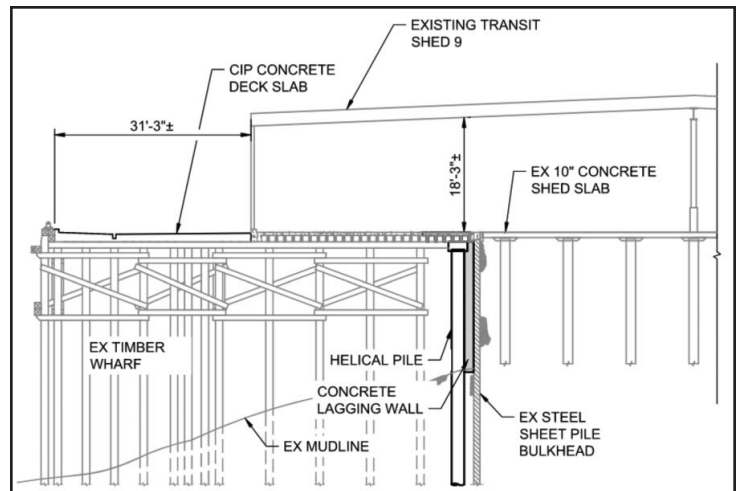


Figure 4. Cross section showing helical pile and concrete lagging wall system, which encases the existing bulkhead



Figure 5. Helical pile installation. Note torque head fitted to excavator, piles installed between intact timber pile caps, and low clearance

Bid Process

The Lake Charles Harbor & Terminal District is a state agency and therefore bound by the Louisiana Public Bid Law. As a result, the District was required to use design-bid-build for project delivery. This meant selecting the lowest responsive bidder and not being able to work side by side with a contractor during the design phase. However, working within the confines of the bid law, the design team was able to include a base bid (drilled shafts) and one alternative (steel pipe piles) in the bid package, allowing contractors to submit bids that met one of the two design options. The lowest responsive bidder proposed to use the alternative of steel pipe piles (with helical flight tips) in lieu of standard drilled shafts.

Construction Challenges

Construction posed a wide variety of challenges including the strength of the spliced connections, early pile refusal, COVID-19 delays, and natural disasters.

The original design included in the base bid (drilled shafts) and alternative (steel pipe piles) assumed that the spliced connections were all welded. The connection needed to develop the full capacity of the pile section in axial, shear, and bending because the piles provided both axial and lateral support to the bulkhead. However, the successful bidder and project contractor proposed the use of

helical piles. Each section of pile was mechanically connected in the field using a prefabricated splicing sleeve and all-bolted connections, which is typical for helical piles that are used for primarily axial loads. Given the importance of lateral support to the wall and potential hard driving, the project team spent significant time and effort verifying that these spliced connections could handle the axial, lateral, and torsional loads. This process was handled through the construction submittal process and included significant post-bid calculation effort by the contractor and engineer. Only a single pile was damaged during driving, resulting from incorrect bolting of the splicing sleeve. Figure 6 below demonstrates the magnitude of torque required to twist the piles into the ground and what happened when the loads were not distributed as designed.

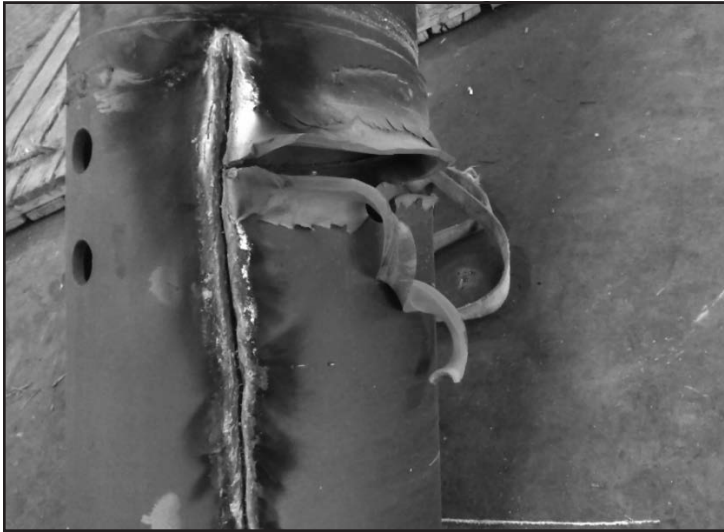


Figure 6. Pile damaged during installation. Bolts at splicing sleeve connection sheared the pile wall

A risk for using helical piles was the potential for premature refusal in the very dense sands encountered at the site. Lateral capacity controlled the required tip elevation of the piles, so the design tip elevation had to be achieved. The soil at the shed location is gray to dark gray, very soft to soft organic clay, and clay to about 25 feet with dense to very dense sand below. The thickness of the sand layer varies across the site ranging from about 11 to 29 feet. Although this information was included in the bid documents and the contractor assessed pile drivability, the helical piles hit early refusal. The torque head on the tractor reached its maximum torque setting and the piles stopped above their specified tip elevation, which was governed by the design lateral load. After close coordination with the geotechnical Engineer of Record, HVJ Associates, the team agreed to permit hydraulic jetting within the pile shaft to help loosen the soil at the tip to allow easier installation. The process involved the following: torquing the pile to refusal; removing the torque head; placing the jetting nozzle down the pile shaft; jetting to a prescribed depth; removing the nozzle; and finally putting the torque head back on to continue installation. The contractor was limited in how much they could jet at one time, and the nozzle was maintained three feet above the pile tip. This allowed clearance of the pile mud plug to ease the resistance to driving but limited the zone of soil disturbance so as not to affect the soil's axial and lateral capacity. All 48 helical piles required some level of jetting, which more than doubled the anticipated installation period.

In addition to early refusal, several piles walked during installation and ended up six to 12 inches out of tolerance in the horizontal plane; see Figure 7. In order to connect these piles to the reinforced concrete beam, the contractor widened the beam and adjusted the rebar layout. See Figure 8 and Figure 9 for the concrete placement.



Figure 7. Concrete beam rebar layout prior to beam widening/bump-outs. Note out of tolerance helical pile in foreground



Figure 8. Beginning stages of concrete beam rebar layout after pouring the new concrete wall



Figure 9. Finishing the topping slab

In addition to normal construction challenges, notice to proceed was issued in June 2020 in the midst of the COVID 19 pandemic. As with the rest of the world, the contractor and project team had new challenges to deal with on a daily basis, with labor illness, quarantines, and material delays. Then, just as the project was ramping up, southwest Louisiana was hit with four natural disasters over nine months. The first and most damaging was Hurricane Laura, a Category 4 hurricane with sustained winds of 150 mph. Hurricane Laura is tied with an 1856 hurricane as the strongest hurricane on record (by wind speed) to make landfall in Louisiana and tied for fifth strongest hurricane to make landfall in the United States. There was an estimated \$20 billion in damage in southwest Louisiana and southeast Texas alone. The Port sustained an estimated \$185 million in damage, including nearly every warehouse and transit shed onsite, as well as a total loss of 40 percent of waterfront transit sheds that were beyond repair. Luckily, the storm damage to Shed 9 was not catastrophic. Some roof and wall repairs were needed, but the major damage was caused by a spiral-veyor ship loader that broke loose from its hurricane tie-downs on Berth 9A, ripped through two sets of crane stops and the Shed 9 wall, and came to

rest hanging over the edge of the dock into our construction site. As could be expected, hurricane recovery and repairs for the entire area became a priority and it would be months before southwest Louisiana could get back to normal. As a result of the hurricane damage and storm-driven river levels, the project was officially delayed 89 days. Additionally, the new Port-wide lack of covered storage space left no choice but to require the contractor to allow even more rice storage inside the shed during construction.

Six weeks after Hurricane Laura made landfall, Category 2 Hurricane Delta impacted the area. This caused more delays due to mandatory evacuations, high water levels, and other general hurricane-related delays. Labor and material shortages were widespread. The two remaining natural disasters to hit southwest Louisiana, Ice Storm Ida and the May 2021 flood, did not cause significant damage to the project, but did cause impacts to the schedule via shutdowns, labor shortages and material delays.

As of March 2022, the project is nearing substantial completion.

References

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Nick Pestello, PE

Director of Engineering, Maintenance, & Development. Lake Charles Harbor & Terminal District. Pestello, is the Director of Engineering Maintenance, and Development at the Lake Charles Harbor & Terminal District where he is responsible for all capital and maintenance projects. Working closely with numerous engineers, consultants and contractors to plan, construct and deliver projects to meet the district's needs. He received his bachelor's degree in civil engineering from McNeese State University; he's a licensed PE in Florida, Louisiana, and Texas. As well as a member of 2023 class of the Professional Port Manager program through the American Association of Port Authorities (AAPA). Email: npestello@portlc.com.

Adrian N. Pearson, MEng, PE

Project Engineer. Moffatt & Nichol. Pearson joined Moffatt & Nichol in 2016 after graduating with a five-year integrated Master of Engineering (Civil) degree from the University of Edinburgh. He has since worked in the design and construction of riverine, coastal, and offshore structures, including platforms, trestles, wharves, piers, docks, bulkheads, and mooring and breasting structures. He has led field inspections of waterfront structures and authored assessment reports documenting structural condition. His experience includes conceptual design through detailed engineering, including developing construction drawings, specifications, cost estimates and structural calculation packages. He has supported project construction from bid and award through commissioning, including review of submittals, RFIs, and payment applications as well as inspection on site and at fabrication facilities. He has represented owners during construction projects and worked closely with contractors, stakeholders, and engineers to resolve construction issues and deliver projects. Email: apearson@moffattnichol.com.

Matt Trowbridge, PE, SE, PEng

Moffatt & Nichol. Trowbridge is a senior structural engineer and project manager for Moffatt & Nichol. He has extensive experience leading multidisciplinary teams in the design and construction of marine terminals and major port infrastructure projects. He has represented the owner during construction projects and worked closely with contractors, stakeholders, and engineers to resolve construction issues and deliver projects. Email: mtrowbridge@moffattnichol.com.

Elie Hasso, PE

Engineer | Structural. Moffatt & Nichol. Elie Hasso is a marine structural engineer for Moffatt & Nichol. He has significant experience in the energy and waterfront industries, with a focus in seismic resilient construction. Elie has served as a project manager, design lead, and technical advisor on several multidisciplinary design and construction projects in the private, state, and DoD sectors. Email: ehasso@moffattnichol.com.

Michael Hasen, PE

Principal Engineer. Hasen's career encompasses more than 30 years of diverse geotechnical, construction materials, and environmental engineering experience. Of particular interest is his lead role in multiple studies involving port terminals, upland disposal areas and beneficial use sites. Hasen has been managed with comprehensive geotechnical evaluations of terminals, retention dike stability, and disposal material bulking/consolidation for both existing and planned facilities. Based on consolidation analyses using large-strain, non-linear materials models, Hasen has developed expertise in estimating the behavior of dredged sediments after deposition in placement and beneficial use areas, which is critical to managing and operating such facilities. Email: MHasen@hvj.com.

ASCE Region 5 News

2023 Presidents and Governors Forum

The 2023 Presidents and Governors Forum (PGF) will be held at ASCE Headquarters in Reston, Virginia on Sunday, September 10th, and Monday, September 11th. The PGF features interactive professional development sessions, best practice presentations, hands-on exercises for effectively running your groups, and opportunities for open discussions with your Society leaders. Additional information will be forthcoming to all Section and Branch Presidents. PGF is recommended for all leaders at the Section, Branch and Region level. If you're interested in presenting at PGF on a Best Practice, tool or resource that other Regions, Sections or Branches may benefit from, please reach out to Nancy Berson at nberson@asce.org.

2024 MRLC's

LTC is collaborating with the Committee on Younger Members (CYM), the Committee on Student Members (CSM) in the planning of

the 2024 Multi Region Leadership Conferences. These conferences provide an excellent mix of leadership training and information on ASCE resources, activities, and programs. The MRLC will not only assist you in your leadership role but will provide Professional Development opportunities. Invitations will be sent this fall, so start deciding now who will represent your Section or Branch! LTC will also continue to encourage and embrace the participation of the Institute leaders at the 2024 MRLC's. We look forward to seeing you all next year!

MRLC Dates and Locations

Jan. 26-27 Regions 1,2,4,5 in Miami

Jan. 12-13 Regions 3,6, 7 in Kansas

Feb. 9-10 Regions 8 & 9 in Seattle

The 2023 New Faces of Civil Engineering in the Collegiate category: Louisiana State University's Madalyn Mouton

The Louisiana Section wants to recognize and congratulate Madalyn Mouton. She is one of ten college students selected nationwide.

RESTON, Va. — The American Society of Civil Engineers (ASCE) has announced the 2023 New Faces of Civil Engineering in the Collegiate category. ASCE's New Faces of Civil Engineering program highlights up-and-coming civil engineering students from around the country and celebrates their academic and professional achievements, as well as their commitment to serving others. All New Faces honorees will be recognized during ASCE's annual Outstanding Projects and Leaders (OPAL) Gala in October 2023 in Chicago, IL in conjunction with the ASCE Convention.

"It's an exciting time to join our industry due to record federal investments in the built environment," said Maria Lehman, PE, President, ASCE. "With more projects to work on than ever before, a new wave of civil engineers will be tasked with preparing American communities to be more resilient and building infrastructure that will set us up for continued economic growth. The 2023 New Faces of Civil Engineering in the collegiate category are going beyond what is asked of them as students and have demonstrated a desire to solve the complex challenges of tomorrow upon entering the workforce. Congratulations to the honorees and welcome to a very fulfilling career."



Madalyn Mouton

Mouton attends Louisiana State University in Baton Rouge as a senior double majoring in civil and environmental engineering. In 2022, Mouton served as ASCE's LSU student chapter president and is currently the chapter's concrete canoe co-captain. She also has been a student intern for the U.S. Army Corps of Engineers (USACE) Engineering Research and Development Center in the Coastal and Hydraulics Laboratory. Her work as an intern includes water-budget analysis for the Mississippi River from Baton Rouge to Belle Chasse and physical to computational modeling comparison for the Los Angeles River restoration project.

2023 ASCE Section Spring Conference

By Carolyn Chapman, EI, Acadiana Branch Conference Chair & President Acadiana Branch

The 2023 ASCE Section Conference was hosted this year by the ASCE Acadiana Branch beginning Thursday, April 27 through Friday, April 28, 2023. The Conference was held at the Lafayette City Club in River Ranch in Lafayette and was a success! We initially planned this event prior to COVID in 2020 and rebooted and held the conference in person this year!



Special thanks goes out to the ASCE Acadiana Branch Officers, who helped plan and organize the event, and for their tremendous assistance before and during the event: Jared Veazey, PE, Jerry Outlaw, Carolyn Chapman, EI, Rhett Hebert, EI, Emily Faulk, EI, Colten Dore, EI, Aaron Enlund, EI, Grant Besse, PE, and City Club at River Ranch. We would also like to recognize the ASCE Louisiana Section for their financial support to ensure the success of this conference. Our goal was to provide an informative, productive, and motivational event and the opportunity to make valuable connections throughout the days.

The lineup for this year's conference offered a variety of topics in all areas of civil engineering and real-world practice applications. This conference had two different PDH opportunities per time slot. The Conference averaged around 30 attendees per day, and we had six exhibitors participate. We also had three gold sponsors (\$500), two silver sponsors (\$300) that contributed to make this conference a success!

Thursday's event began with registration in our main event hall. Each attendee then had the option of attending one of the two speakers in our breakout rooms. Our presentations included:

- Landfill Cell Construction Quality Assurance—John Trahan, PE, MSCE
- Traffic—Warren Abadie, PE
- Surveying Louisiana's Watersheds—Forte and Tablada
- Overview on I-20 Bridge at Vicksburg—Casey Tsai
- LAPELS Ethics—Chris Richard, PE
- Louisiana 811—Call Before You Dig—Cole Vanderlick
- I-10/I-49 Girder Damage Emergency Project—Chris Giglio and Matt Hebert
- MRB South: Project Progress & Benefits of a New Bridge—Kara Moree and Maria B. Reid
- Public Private Partnerships for Detention Projects—Jeanne Hornsby and Gary O'Neal
- ACB Design Technology Update—Jim Nadeau
- Commission Blvd. Water Treatment Plant—Chris Richard, PE

Friday's presentations included:

- UL Civil Engineering Senior Design Presentation—Spring 2023 Civil Engineering Senior Design Class

- Modeling the Effects of Hydromodification on the Salinity Regimen of a Developing Delta—Robert Miller, PhD, PE
- Performance Evaluation of Reflective Crack Mitigation Techniques for Soil-Cement Bases in Louisiana—Mohammed Jamal Khattak, PhD, PE
- A Watershed-Centered Approach for Understanding Flood Risk and Developing Community Effective Mitigation Strategies—Emad Habib, PhD, PE
- PFAS adsorption: Current Approaches, Engineering Applications, Challenges and Opportunities—Danial Gang, PhD, PE
- Evaluating Leakage Through Rock Filled Juranah Dam—Kirk Lowery, PE
- Hard Rock Hotel Collapse—Norma Jean Mattei, PhD, PE



Norma Jean Mattei, PhD, PE presents the Friday luncheon session on the Hard Rock Hotel Collapse

The conference wrapped up with lunch and the Section General Membership meeting lead by Josh Olivier, PE, Chair for the Section Awards and Student Activities & Awards Committees. They also recognized Distinguished Senior and Junior Civil Engineering Students who received Section Awards.



Conference attendees at the Friday luncheon

Distinguished Senior Civil Engineering Student Awards

Matthew DeRoeuen, Louisiana State University
Noah Savoie, Louisiana Tech University
Brady Fontenot, McNeese State University
Courtlynn Elizabeth Thomas, Southern University
Clairissa Ellinger, University of Louisiana Lafayette
Yelitza P. Cedeno, University of New Orleans

Distinguished Junior Civil Engineering Student Awards

Sarah Christopher, Louisiana State University
Connor R. Sigler, Louisiana Tech University
Connor Broussard, McNeese State University
Zuri Ylan Watts, Southern University
Natalia Tooraen, University of Louisiana Lafayette
Amanda Darda, University of New Orleans

In total, the conference was a great success, offering a total of eighteen (18) PDH opportunities for over 30 total attendees. On behalf of the Acadian Branch, I would like to thank the speakers, sponsors, exhibitors, attendees, and ASCE members for the ongoing support of the branch. We strive to provide innovative information for the growth of your professional career, and we look forward to continue serving you and our community. We really appreciate everyone's involvement, and we were happy to coordinate an event that benefitted the membership from around the State.

Gold Sponsors

Sellars & Associates, Inc
D & W Systems Sales
Chapman Consulting, Inc

Silver Sponsors

Advanced Drainage Systems, Inc
Ferguson Waterworks

Exhibitors

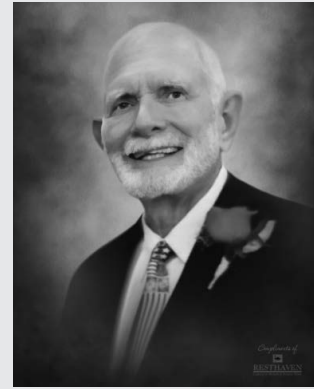
Ardaman & Associates, Inc
D & W Systems Sales
Chapman Consulting, Inc
Advanced Drainage Systems, Inc
Industrial Fabrics, Inc
Premier Concrete Products



Group photo of the student award winners (l-r): Matthew DeRoeuen, Clairissa Ellinger, Natalia Tooraen, Sarah Christopher, Courtlynn Elizabeth Thomas, Zuri Ylan Watts, Yelitza P. Cedeno, Connor R. Sigler, Amanda Darda, and Noah Savoie (not pictured: Brady Fontenot and Connor Broussard)

IN MEMORIAM

James C. "Jim" Webb
1935 – 2023



James "Jim" C. Webb, a resident of Baton Rouge, passed away peacefully on Tuesday, February 21, 2023, at Ochsner Hospital in New Orleans at the age of 87. He was five times retired from LA DOTD, RBA, DPW, CTE and MMLH. Jim Webb is survived by his wife Jerrie P. Webb of 63 years; son and daughter-in-law Benjamin "Ben" and Tisa Webb; daughter and son-in-law Cindy and Stephen Henry; grandchildren Caroline Webb, Benjamin "Travis" Webb and Eli Henry; sister Joyce Viator and brother Jerome Webb. He is preceded in death by his parents William T. Webb and Lillian Richard Webb, brother Billy Webb, and his father-in-law Benjamin "Doc" Hardy Phillips and mother-in-law Travis Sherman Phillips. Jim Webb was born on July 3, 1935, in Westlake, LA. He graduated from Southwestern Louisiana Industrial Institute (SLII) in 1962 with a degree in civil engineering. He married Jerrie Phillips, his college sweetheart in 1959. After moving to New Orleans Jim began working for LA Department of Transportation Development (DOTD) as chief of the flood control section and later transferred to Baton Rouge with LA DOTD where he worked on the Louisiana Offshore Oil Port (LOOP). He later became Director of Department of Public Works (DPW) in Baton Rouge before moving to New Orleans to work with the Street Department. He then went to Construction Testing & Engineering, Inc. (CTE) and Meyer, Meyer, LaCroix & Hixson, Inc. (MMLH) where he worked utility relocation for the Widening of the Huey P. Long (HPL) Bridge in New Orleans and the John James Audubon (JJA) Bridge connecting New Roads and St. Francisville. Jim was a lifelong, one man, recruiting and public relations advocate for American Society of Civil Engineers (ASCE). He served as Branch President, Section President, District 14 Chair and a member of the National ASCE Board of Directors. Jim prepared the successful proposal applications for two Outstanding Civil Engineer Achievement Awards featuring Louisiana projects. In 1982, Jim prepared the LOOP project proposal, and in 1984, he prepared the Luling-Destrehan (Hale Boggs) Mississippi River Bridge project proposal. These awards brought international acclaim to Louisiana for these outstanding projects within our State. Jim advised and encouraged many young civil engineers to join and become active in ASCE. Jim was a loving husband and father. He enjoyed traveling and outdoor activities including camping, sailing, and golfing. He loved time spent with his grandchildren. His children and grandchildren remember him as an avid golfer and jack of all trades. A visitation was held at Resthaven Funeral Home in Baton Rouge on Saturday, February 25, 2023. Deacon Don Musso officiated the ceremony. Many colleagues attended and celebrated Jim Webb's life. Pallbearers were Ben Webb, Stephen Henry, Travis Webb, Eli Henry, Rodrigo Diaz and Chris Piehlor. The family is grateful for the love and support of many friends and the medical care from the doctors and ICU staff at Ochsner Hospital in New Orleans for their care and dedication.

ASCE-COPRI Louisiana Chapter News

By William Gohres, PE, Director – Communications



COAST, OCEANS,
PORTS AND RIVERS
INSTITUTE
Louisiana Chapter



William Gohres, PE

Director – Communications

The Louisiana Chapter of the Coasts, Oceans, Ports, and Rivers Institute (L.COPRI) of the American Society of Civil Engineers (ASCE) promotes membership, professional development, and visibility throughout the State of Louisiana by conducting virtual webinars and in-person events.

YPG and Student Chapter Updates

The LSU COPRI Student Chapter has hosted several interesting guest lectures on topics such as Submarine landslides off of the Mississippi River delta, and plastic pollution in the Mississippi River. The team hopes to host a boating trip on the Mississippi River before the end of the semester. Keep a look out for future event announcements via email and LinkedIn.

Please reach out to Julia Mudd (LSU COPRI Student Chapter President, mjulia1@lsu.edu) and Kiara Horton (YPG Director, kiara.horton@freese.com) for information on how to get involved as an LSU Student or Younger Member.

Scholarship Announcement

L.COPRI recently collected scholarship applications from students studying Civil, Coastal, Ocean or Environmental Engineering, or a Coasts, Oceans, Ports, or Rivers related field. L.COPRI awarded a \$1000 scholarship to one undergraduate and one graduate student. We received several applications from many impressive students, making our jobs quite difficult! However, after independent evaluations from each of the L.COPRI Board Members, we awarded the two (2) scholarships to Graduate Student: **Mercedes Pinzon Delgado** and Undergraduate Student: **Siarah Hall**. Scholarship winners were presented their checks during the L.COPRI Spring Seminar.

For application inquires please contact Brett McMann, Scholarship Director at bmcmann@thewaterinstitute.org.

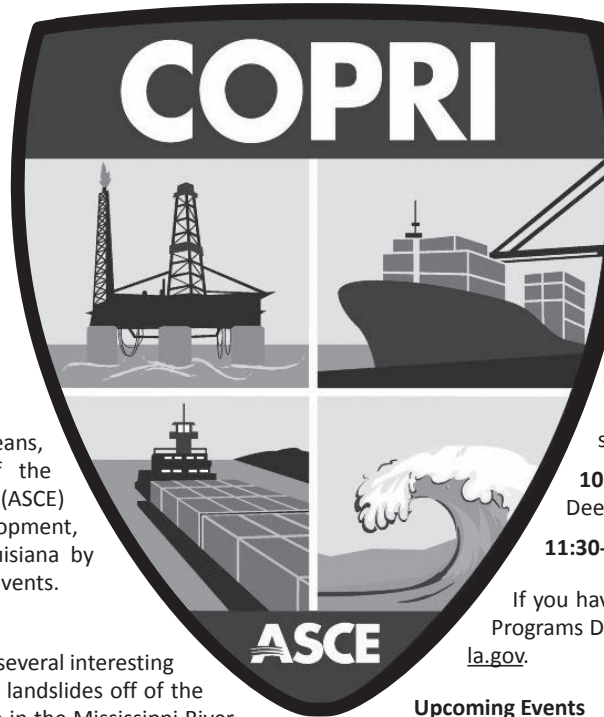
Past Events

Technical Webinar

L.COPRI hosted a webinar on Wednesday, March 22, 2023 featuring Eric England, Executive Director of Caddo-Bossier Port. The topic of the webinar was on Port Management, detailing the Caddo-Bossier Port Master Plan and upcoming projects. Thank you to Eric England and all who participated!

Half-Day Spring Technical Seminar

L.COPRI hosted a half-day in-person seminar on Wednesday, April 26, 2023 at the Tulane River and Coastal Center in New Orleans. The two technical speakers were **Catherine Russell, PhD** and **Brad Inman**, Chief



of Projects and Restoration Branch, US Army Corps of Engineers. Thank you to Dr. Catherine Russell, Brad Inman, and all who participated!

The Program was as follows:

9:00 a.m. – 11:45 a.m.

9:00-9:15 a.m. Welcome remarks and speaker introduction

9:15-10:15 a.m. Dr. Catherine Russell, Geological evolution of the MS River into the Anthropocene.

10:15-10:30 a.m. Short break, COPRI scholarship presentations

10:30-11:30 a.m. Brad Inman, MS River Deepening

11:30-11:45 a.m. Closing remarks and adjourn

If you have any general event questions, please contact Programs Director Molly Bourgoyne at molly.bourgoyne@la.gov.

Upcoming Events

ASCE INSPIRE 2023

ASCE INSPIRE 2023 offers an opportunity to connect with, share knowledge, and learn from experts actively bringing the future to life. Ensure that the built environment is safe, dynamically resilient, sustainable, future-ready, and adaptive to changing climate conditions. Plenary speakers, technical sessions, local tours of engineering projects, and the Hall of Inspiration will have you nothing short of INSPIRED. The conference will take place in Arlington, VA from November 16-18, 2023. For more information please visit <https://inspire.asce.org/>.

WEDA Dredging Summit & Expo '23

The Dredging Summit & Expo '23 is a technical conference organized by the Western Dredging Association (WEDA) to promote the exchange of knowledge in fields related to dredging, navigation, marine engineering, and construction. It will provide a forum for improvement of communications, technology transfer, and cooperation among associations & societies while emphasizing the importance of understanding and developing of solutions for problems related to the protection and enhancement of the marine environment. The conference will take place at the MGM Grand in Las Vegas, NV from July 17-20, 2023. For more information please visit <https://dredging-expo.com/general-info-2023/>.

Other Information

The activities of L.COPRI includes seminars, workshops, and other activities to benefit all ASCE and COPRI members. Members do not have to be an engineer to join COPRI. The Institutes of ASCE 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. We would like to extend an invitation to our members to submit feedback and ideas for upcoming webinars and events. Please submit these ideas to williamgohres@matrixpdm.com, and stay-tuned for a meeting invite if you are a member of our L.COPRI email list.

Also, please don't forget to follow us on LinkedIn! We have a new L.COPRI page!!

ASCE-G-I Louisiana Chapter News

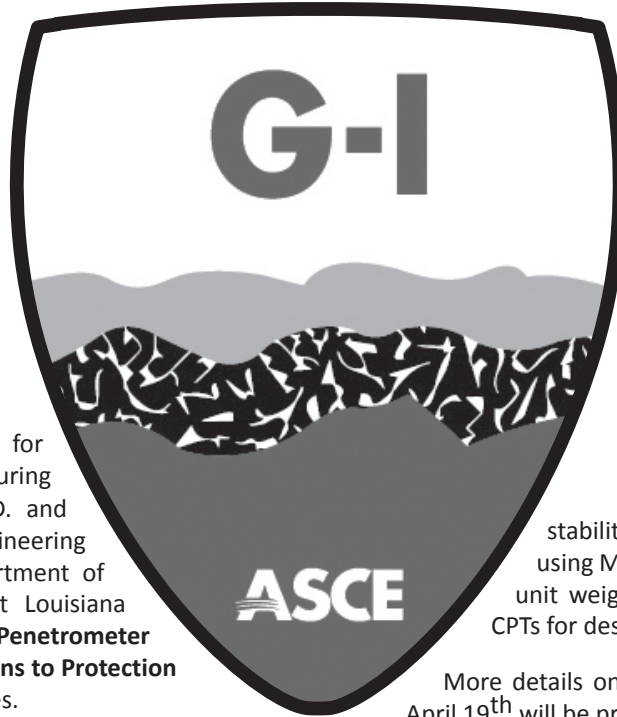
By Gwen Sanders, Chapter Chair



GEO-
INSTITUTE
LOUISIANA CHAPTER



Gwen Sanders, PE, D.GE
G-I Chair



The GI-LA Chapter hosted a webinar for 1 PDH on Monday, March 6th featuring **Navid H. Jafari, PhD**, the Wilbur D. and Camille V. Fuglar, Jr. Professor of Engineering and Associate Professor in the Department of Civil & Environmental Engineering at Louisiana State University. He presented “**Cone Penetrometer Testing in Coastal Louisiana: Implications to Protection and Restoration**” to 65 virtual attendees.

The three primary applications of CPTs in coastal Louisiana presented included quantifying the undrained shear strength obtained from 3-in. vs 5-in. diameter soil samples and the implications to slope

stability FS when calibrating the cone factor N_{kt} ; using ML/AI to improve organic classification and unit weight predictions; and new applications of CPTs for design and assessment of wetlands.

More details on their hybrid in-person/virtual event on April 19th will be presented in the next issue.

If you would like to join the group or sponsor a lecture, please contact Gwen Sanders at gsanders@eustieng.com for opportunities.

EMPLOYMENT OPPORTUNITY

TERRACON - Engineering Office Manager, New Orleans, Louisiana | Regular, Full Time

Terracon continues to grow and is committed to building strong foundations in our local communities while striving for safety and wellbeing of our employees and the clients we serve!

Our office in New Orleans is currently seeking an experienced Engineer or Geologist to lead our team as the Office Manager. You will be leading a team of professionals that is focused on being inclusive, diverse, caring, and high performing, in a growing and profitable office located in New Orleans. There is also a satellite office located in Shreveport, LA that is part of the Office manager position.

You will provide leadership and manage the direct/support activities (administrative and technical) of a large engineering consulting office. This includes profit/loss management, employee supervision, project management, quality control, health and safety oversight, client development activities, and new business development. Responsible for general leasehold improvements, project and office equipment, and proper oversight and utilization of all personnel.

This position will be on the Principal track of a nationally recognized employee-owned company that is growing in excess of 10% annually. Come Explore with us today and build the foundation of our future!

Please see the application online for the **Essential Roles & Responsibilities, Requirements, and Preferred Certifications**.
<https://careers.terracon.com/job/new-orleans/engineering-office-manager/37184/47925750608>

Apply online or send resume to Jeremy.bonewitz@terracon.com.

ASCE 2023 Legislative Fly-In and Policy Week

The Fly-in is an annual event that takes place in Washington DC. The Louisiana Section's representatives were Ricardo C. de Abreu, PhD, PE, Andrew Woodroof, PE, and Nedra Davis Hains, MA who met with several Congressional offices on the Hill.



Andrew Woodroof, Nedra Hains, and Ricardo de Abreu at the 2023 Fly-in

Highlights of 2023 Fly-In and Policy Week kicked off at the Hyatt Regency Washington on Capitol Hill March 1-3, 2023, included the Wednesday, March 1, 2023, Session started with the Advocacy Captains Briefing by Elisabeth 'Lizzie' Dorman, Sr. Manager, Grassroots Programs and State Advocacy, ASCE. The "Legislative Fly-In Refresher" session was held concurrently by Maria Lehman, PE, ENV SP, F.ASCE,

This was followed by afternoon sessions including the "Issue Briefing, Part I - IIJA Implementation" by Caroline Sevier, Director, Government Relations, ASCE.

Thursday, March 2, 2023, ASCE started with the "Awards Breakfast" followed by the "Congressional Meeting Best Practices" by Brad Fitch, President and CEO, Congressional Management Foundation. The afternoon sessions included, "Issues Briefing, Part III - Research and Development and Resilient Infrastructure" by Martin Hight, Sr. Manager, Federal Government Relations, ASCE and the "Issues Briefing, Part IV - Resilient Infrastructure Continued and Water Resources Development Act" by Matthew McGinn, Sr. Manager, Federal Government Relations, ASCE.

Congressional Visits followed by de Abreu, PhD, PE, Woodroof, PE, and Hains, MA from Louisiana. They ended their Capitol Hill visit with the "Infrastructure Gamechangers Reception" at the ASCE ROOFTOP at 101 Constitution Ave. NW.

The key messages were delivered on March 2, 2023, to Maggie Ayrea, Deputy Chief of Staff in Congressman Graves' Office; Austin Wolfson, Policy Advisor, Congressman Steve Scalise's office, Nick Strother, Legislative Assistant for Congressman Troy Carter's office, Ron Anderson, Senior Policy Advisor and Blake Schindler, Policy Advisor attended for Senator Cassidy's office; and James Shea, Legislative Assistant attended for Senator Kennedy's office. De Abreu, PhD, PE, Woodroof, PE, and Hains, MA conveyed the key messages, which were:

1. We need your continued support of the Infrastructure Investment and Jobs Act implementation.
2. We need your support to reauthorize the Federal Aviation Administration and National Dam Safety Program.
3. We need your support in championing resilient infrastructure.

Congress Graves' office Maggie Ayrea, Deputy Chief of Staff shared with Nedra Hains, MA, about Bayou Chene and the \$41.7M work plan. They also discussed the direct flight between Baton Rouge and Washington D.C. from EBRP perspective. Ayrea spoke about Graves' recent appointment to committees and knows that ASCE is in the corner with Graves at a national and local perspective. Hains highlighted the work across the state and nation that we appreciate.

1. FAA, Graves Builder Act Bill that gives DOTD oversight signature on permits.
2. IIJA spending wisely concerning where the money is going like the \$M for the bridge in Lake Charles, LA.
3. Louisiana passenger rail. Ayrea reminded Hains to not place the cart before the horse. That there has to be a lot of NEPA work done and that the rail is not passenger grade.

Hains conveyed the main issues such as the continued support of the IIJA, reauthorization of the FAA, Nat. Dam Safety, and championing resilient infrastructure. Hains thanked Ayrea for all the work that she and other staffers do in the Rep's office and know that they are on top of the issues. Hains stressed using ASCE as a resource for technical issues and the ability to connect the right people with their office at a national and local level. Ayrea said that Graves was committed to FAA, of course. and that they understood the importance of the Nat. Dam Safety reauthorization. Ayrea said that they are dedicated to resilient infrastructure.



Nedra Hains and Maggie Ayrea, Deputy Chief of Staff for Congressman Garret Graves

Senator Bill Cassidy's office Ron Anderson, Senior Policy Advisor and Blake Schindler, Policy Advisor met with the group. Andrew Woodroof shared a story with Anderson and Schindler about the young boy who died in St. Bernard Parish because of the brain-eating amoeba. Woodroof spoke about the state revolving fund that helped to replace the water lines and explained that the taxes were now 40% higher and the parish cannot afford to do more, but with the IIJA implementation along with cooperation from LDH & DEQ that there is going to be some relief. St. Bernard will be able to modernize its water system. Woodroof also spoke about the IIJA ties to resilience with no dedicated funding for the parish requiring the elevation of infrastructure. Ron Anderson replied that Senator Cassidy is about getting the word out about IIJA and what it can be used for, and other officials came under some criticism. Senator Cassidy knows there is a huge backlog and an antiquated system that needs repair. Senator wants to use the money and get on top of these critical issues and move quicker. Everyone is busy and we see how there are workforce problems. Woodroof responded that this was true in every industry including engineering and construction, which are critical to IIJA success, along with prices of materials that are up 20-50%+. Anderson responded that we see it in a number of different fields. Andrew Woodroof spoke about workforce issues from the IIJA

perspective, LA has a brain drain, problems with resiliency, staffing shortages, and construction-side workforce and supply chain issues within supporting IIJA would cause delays.

Ricardo de Abreu told a story about a solid waste site, a parish landfill that is leaching contamination into the recreational water system. The old landfills are small (\$3-4M gross). de Abreu suggested that treatments are not cheap and that the Local, State, and Federal need to commit to a solution for this to happen, and IIJA could make this possible. Kids are swimming, people are fishing, and recreational waters are making people sick, maybe the Senator could get behind tweaking the IIJA to include landfills. de Abreu works on 18 of the 23 small landfills in LA. Blake Schindler responded that leaching in recreational waters is a big problem and asked de Abreu what the proximity to landfills the recreational sites was. de Abreu said there is no regulation, not in St. Bernard. Ron Anderson said that they recognize multiple issues, and they supported supplemental money for addressing the challenges of new contaminants. Anderson feels that IIJA will be able to address these new challenges. He mentioned that Carter voted with Cassidy.

Nedra Hains spoke about the FAA Authorization and redirected to the asks about the continued support of the IIJA, support for reauthorization of FAA, National Dam Safety, and championing resilient infrastructure that these two engineers just touched on with their important shared stories. Blake Schindler said concerning FAA that their office was receiving calls about the traffic and the new Airport in New Orleans and explained that the State would not start construction on the flyway until the airport was complete. They are not confident that we will get funded for dam safety but support it. FAA is a priority.



Andrew Woodroof, Blake Schindler, Policy Advisory, Nedra Hains, Ron Anderson, Senior Policy Advisory, and Ricardo de Abreu visit Senator Bill Cassidy's office

The legislative meeting with James Shea, Legislative Assistant in Senator Kennedy's office was a cordial meeting in a separate conference room around the corner. The group arrived in the middle of all of the Louisiana Delegation moving offices. Andrew Woodroof shared the same story with James Shea about the young boy who died in St. Bernard Parish because of the brain-eating amoeba, the state revolving fund, IIJA ties to resiliency. James Shea replied that the Senator works with the DOE and that they work back and forth to find pots of funding. Shea said they are looking at this from an energy perspective. They remain dedicated to requirements for resiliency. The key factor/keyword is getting through the appropriations process, we really need people to focus on a bipartisan bill. The Senator wants to spend the money in the right place.

Ricardo de Abreu told the same story about a solid waste site, a parish landfill that is leaching contamination into the recreational water system. James Shea responded that he was a fisherman and is very familiar with Gulf fishing and fishing at Bayou St. John. He expressed sorrow that kids were getting sick.

Nedra Hains provided the core messages that these two engineers just touched on with their important shared stories. Andrew Woodroof

asked James Shea what his issues were these days and he responded with, from the IIJA perspective, LA has a brain drain, problems with resiliency, and staffing shortages. Shea felt that a concentration on getting college students focused on the Energy side, in oil and gas through internships was important. Shea felt that they needed to train a construction-side workforce and that supply chain issues within supporting IIJA would cause delays.



Ricardo de Abreu, James Shea, Legislative Assistant, Nedra Hains, and Andrew Woodroof visit Senator John Kennedy's office

Additional successful meetings were held with Austin Wolfson from Congressman Steve Scalise's office and Nick Strother from Congressman Troy Carter's office with de Abreu, PhD, PE and Woodroof, PE. The core message was delivered along with the reminder that ASCE can be relied upon to provide expert advice on infrastructure issues. Meeting with the staff of Congressional and Senatorial members is very important for developing long term relationships you can continue to cultivate when you return home. Offering your expert advice as a Professional Engineer is part of the ASCE motto: "Inspire. Energize and cultivate a diverse, inclusive, and engaged civil engineering community."



Ricardo de Abreu, Nick Strother, Legislative Assistant, and Andrew Woodroof visits Congressman Troy Carter



Ricardo de Abreu, Austin Wolfson, Policy Advisor, and Andrew Woodroof visit Congressman Steve Scalise's office

The LA Section Government Relations Committee encourages you to schedule a **Back Home Visit** or attend a local town hall meeting or other event with an elected official to raise the issue of infrastructure. For more information on the Report Card for America's Infrastructure please see <http://www.infrastructurereportcard.org>.

ASCE-T&DI Louisiana Chapter News

By Sean Daly - Newsletter Editor



TRANSPORTATION
& DEVELOPMENT
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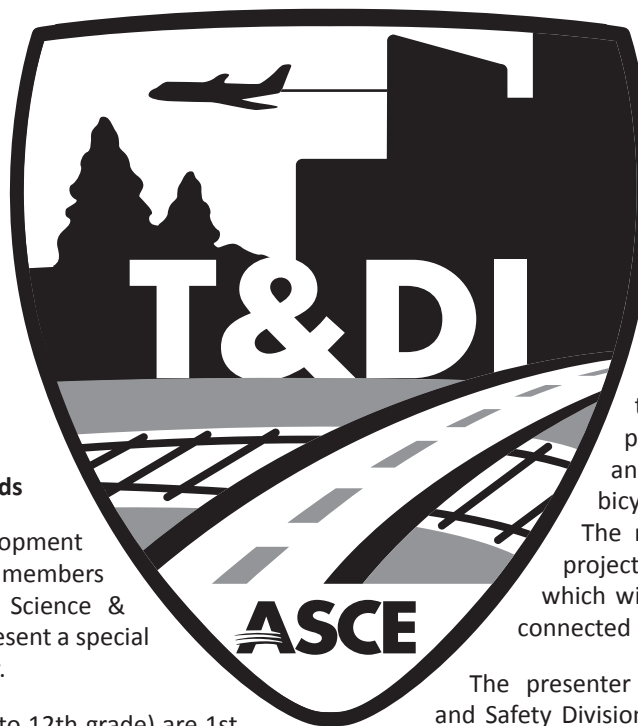
Sean Daly
T&DI Chair

2023 Louisiana State Science & Engineering Fair Transportation Awards

Louisiana Transportation & Development Institute Executive Committee members attended the 2023 Louisiana State Science & Engineering Fair on April 4 and 5 to present a special award for the Transportation Category.

Recipients in the Senior Division (9th to 12th grade) are 1st Place: Presleigh Fontenot – The effects of material on the amount of water and debris, absorbance, and stretch on a silt fence for her innovate use and analysis of used clothing materials and 2nd Place: Ella Barker – Combustion carbon capture via aqueous solutions.

Recipients in the Junior Division (6th to 8th grade) are 1st Place: Jonah Cochran with his exhibit: *How Paper Airplane Design and Material Affect Flight* and 2nd Place: Logan Benoit with his exhibit: *Rocket Stability*. These two exhibits stood out for their attempt to control variables and the quality of data collected.



Inside the New Orleans Bikeway Network: Planning and Design Approaches Seminar

ASCE T&DI Louisiana Chapter hosted an in-person seminar in April to present the on-going development of the New Orleans Bikeway Network. The City of New Orleans recently created the Mobility and Safety Division within the Department of Public Works to ensure multimodal design in street projects that improve mobility options and increases safety for people walking, bicycling, accessing transit, and driving. The new division leads highly collaborative projects including Moving New Orleans Bikes, which will result in the accelerated build-out of connected high quality bikeways.

The presenter was Jennifer Ruley, PE the Mobility and Safety Division Manager for the City of New Orleans Department of Public Works. In addition to being a registered professional engineer in the State of Louisiana, Ruley has a diverse background in public, private, and the non-profit sectors and experience in the fields of engineering, public health, and transportation planning.

The seminar was held on the University of New Orleans campus and attendees received one (1) PDH Certificate for attending the seminar.



2023 Louisiana State Science & Engineering Fair Senior Division Special Award Transportation Category Winners



2023 Louisiana State Science & Engineering Fair Junior Division Special Award Transportation Category Winners

Congratulations to the winners!

Branch News



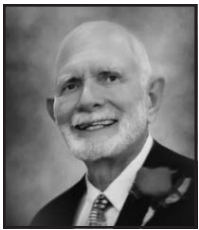
BATON ROUGE BRANCH

By Venu Tammineni, PE, LEED AP, Branch President

ASCE presented the Baton Rouge branch annual scholarship award at the Louisiana Engineering Society (LES) annual Engineers Week Gala held at Ruffino's on February 28, 2023 to T'Senre Gray from Louisiana State University. ASCE also presented the Melissa Young Doucet, PE Memorial Scholarship to four students at the Engineers Week Gala.

The recipients included Ms. Zuri Y. Watts, Ms. Kalani Jones and Ms. Tinna Arnarsdottir from Southern University and Ms. Morgan Domingue from Louisiana State University. Greg Young, Rhonda Young and Ms. Rachael Lambert, PE attended the gala through ASCE to present the scholarship awards to the recipients. ASCE co-sponsored the LES cocktail party held at City Club on March 2, 2023.

ASCE March luncheon held at the Drusilla Seafood Restaurant on March 16, 2023 was kicked-off with remembering James "Jim" Webb, PE (July 3, 1935 - February 21, 2023), who was a lifelong advocate of ASCE. Please see the Section News for his obituary on page 13.



James "Jim" Webb

The ASCE March Luncheon included an ethics presentation from Chris Aaron and Ms. LaTasha Andrews who are currently the LAPELS board investigators. The April luncheon will be held at Drusilla Seafood Restaurant with a presentation from Ricardo deAbreu, PhD, PE D.GE, F.ASCE, on the Current State-of-Art of Waste Landfills and their Future.

ASCE hosted a successful Bridging-the-Gap event on April 27th at the LSU Museum of Art in Downtown, Baton Rouge. Robert Twilley, PhD, James Martin, MBA and Greg Upton, PhD participated in the lively panel discussion on Wind Energy, "Engineering the Future of Energy in Louisiana". Thanks to our moderator Jack Koban, PHD, PE and sponsor; LSU Museum of Art.

ASCE national announced the 2023 New Faces of Civil Engineering in the Collegiate category. ASCE Baton Rouge branch student chapter member and LSU student Chapter President Ms. Madalyn Mouton, a senior double majoring in Civil and Environmental Engineering at the Louisiana State University is one of the top ten new faces in the 2023 Civil Engineering Collegiate edition. See more on Mouton in the Regional Section on page 11.



ASCE BR BRANCH Bridging the Gap at LSU Museum of Art



Bridging the Gap: Robb Jewell, Jack Koban, Greg Upton, James Martin, and Robert Twilley



ACADIANA BRANCH

By Carolyn Chapman, EI, Branch President

The Acadiana Branch was honored to host the annual ASCE Spring Conference. We had a nice (member and non-member) turnout to our event on both days. The variety of the presentations given was top-notch and we are so appreciative of all who gave their time to come to share their wealth of knowledge. For all of our

attendees, we cannot thank you enough! We understand that there are different methods of obtaining your Professional Development Hours, however nothing can compare to sharing space with old and new friends while doing so.

A special thank you to all members of the ASCE Acadiana Branch Conference Committee and ASCE Louisiana Section.

The Acadiana Branch, IEEE and LES held our annual crawfish boil for our members on May 9th in Girard Park. This was another fantastic event. The friends and colleagues were fantastic, but the crawfish made it even better.

We look forward to continuing the year strong with more events for the members, including luncheons and a golf tournament.



ASCE Spring Conference Fun



NEW ORLEANS BRANCH

By Kyle Galloway, PE, Branch President

February and March were jam-packed for the New Orleans Branch! Our outreach volunteers have outdone themselves the past few months, supporting events for kids of all ages including MathCounts, the Greater New Orleans Science and Engineering Fair, Engineers' Week and Mud Fest at the Louisiana Children's Museum, UNO's National Engineers'

Day event for high school students, and a mock interview event for UNO's engineering students.

On March 2, we hosted our annual Younger Members' Forum on March 2. This year, our panel focused on equity, sustainability, and practicality in engineering practice. It was another excellent event for our younger members. Special thanks to our sponsors: Fenstermaker, Ardaman & Associates, and Eustis Engineering.

We continued to host very high caliber speakers at our luncheons. February featured Meagan Williams, PE, the City of New Orleans'



Younger Member Forum Panel

Urban Water Program Manager and a true celebrity in our local civil engineering community. In March, we hosted former DOTD Secretary Dr. Shawn Wilson, who shared his insights and philosophy on infrastructure and drew our largest crowd yet! In April, we returned our luncheon to the North Shore for the first time since COVID, hearing more insights on transportation infrastructure from State Sen. Patrick McMath and State Rep. Mark Wright. Our members also attended the Joint Societies social on March 23 at Tchoup Yard, which drew 160 attendees from 11 professional organizations.

We have no plans to slow down this spring and summer. While we are still working out the details, we expect to continue with excellent luncheon presenters and more social and outreach events. You can keep up with the Branch by following ASCE New Orleans on facebook and LinkedIn or checking our website at www.asceneworleans.org. You can also reach out to us at ASCEneworleans@gmail.com. We hope to see you at our events!



Nic Scalfano, EI, was one of several volunteers who supported the Louisiana Children's Museum's E-week event



Dr. Shawn Wilson presented at our March luncheon



SHREVEPORT BRANCH

By Joshua Walker, PE, President of Shreveport Branch

Branch Project Spotlight - COMING SOON

Earlier this month, I participated in a national ASCE webinar called “Best Practices” for both Section and Branch officers. On the topic of member engagement, an example newsletter from the Richmond VA Branch regularly

features a project from a Branch member as part of its outreach. I was excited to see this as I have mentioned something similar at our past luncheons, and I really would like to showcase you and the work you are doing for your communities in our Branch and Section newsletters. So, please reach out to me or another officer with interest and ideas. We will follow up and get the scoop!



The Audubon Bridge in St. Francisville that some say “oughtabeen” built in Donaldsonville

Did You Know...

The **American Society of Civil Engineers** represents more than **150,000 members** of the civil engineering profession in **177 countries**. Founded in 1852, ASCE is the nation’s oldest engineering society. The photo below of the *Twentieth Annual Convention for*

ASCE was taken in 1888 outside of the Athenaeum Building in Milwaukee, WI. This building was designed and built 1887-88 and remains the longest standing building in Wisconsin erected for a private club, the Women’s Club of Wisconsin.



Student News

LOUISIANA TECH

By Mallory Mankins, Student Chapter President

The American Society of Civil Engineers Student Chapter at Louisiana Tech has had an exciting Spring Quarter as we just recently attended the Gulf Coast Student Symposium Regional Competition hosted at the University of South Alabama in Mobile, Alabama! Louisiana Tech proudly came home with twelve 1st place finishes and six 2nd place finishes!

The concrete canoe has been through a makeover of sorts as we stained it with different colors to match our theme of Bonnie and Clyde. We used stencils to make the shape and body lines of Bonnie and Clyde's car and then added a green background to match the aesthetic of North Louisiana. Our display board for the canoe competition was built to resemble a robbed bank with a functioning vault door. In front of the vault door, the aggregate samples were displayed as money bags. The technical proposal and presentation were put together with the same aesthetics and were presented very well. Our concrete canoe team will be traveling to Platteville, Wisconsin, in early June to compete in the Civil Engineering Student Championship Finals! Our team is very honored to have made it to this level again and to compete against the other top schools in the nation.

A new competition that we competed in this year was the Timber Strong Competition that was led by Luke Bell. Luke took the role as captain of this and ran with it! He assembled a team, sketched the structure, performed the appropriate calculations with the help of other students, and assembled the necessary pieces with the team before transporting it to Mobile for the symposium. For this being our first year competing in this competition, we are proud to say that we placed second and have gained great knowledge about the process and what can be improved upon for the years to come.



LA Tech Student Chapter members compete in the steel bridge competition at 2023 Regionals. 1st place - aesthetics



1st place and head to Nationals in Wisconsin the second weekend in June

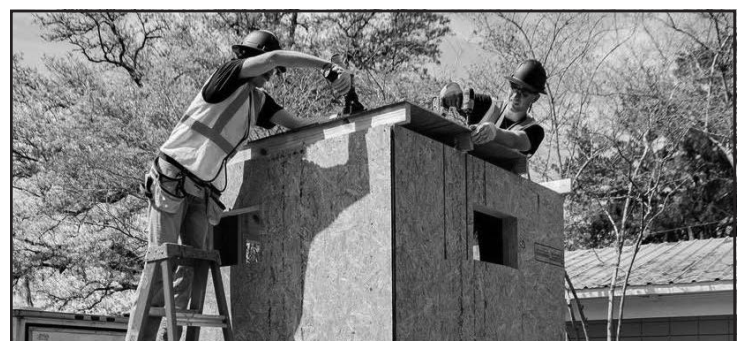
ASCE

Since the competition our steel bridge team, surveying team, and sustainable solutions team have been reviewing what was accomplished this year and working on a game plan for next year.

The transportation leadership council has been hard at work for the last month as they have been preparing for the Asphalt Road-eo Competition that is being held in Buda, Texas. Preparation has included but not been limited to sieving aggregates, performing gradation calculations, designing and making their own mixes. This year Louisiana Tech has registered two teams to compete with several of the new chapter members.

Recently, the student chapter was invited to have a display at the Louisiana FloodPlain Management Association (LFMA) Conference to display all of our hard work that students have put in over the past school year. The newest steel bridge, sustainable solutions poster, and concrete canoe display and cutaway were set up to showcase the recent work. In the upcoming months, our chapter will be experiencing a change in leadership as we go through our elections for the new school year. Once our new officers are elected, we will have a farewell to all of the senior students that have been a part of ASCE while they have been at Louisiana Tech. This event will be celebrating their accomplishments as well as the faculty that has taught them over the last few years.

If there are any questions or if anyone wants to join that isn't already a member, please reach out to louisianatechasc@gmail.com and we will be sure to get back to you!



LA Tech Student Chapter members compete in the Timber Strong event at 2023 Regionals. 2nd place finish



LA Tech ASCE Student Chapter after Regionals banquet in Mobile, AL

UNIVERSITY OF NEW ORLEANS

By Gennie Claros, Student Chapter Recording Secretary

For the UNO Community, the 2023 Spring semester has been all about the Gulf Coast Regional ASCE Conference, which took place last month. We are now beyond proud to announce that our Steel Bridge Team came home with their hands full of awards, keeping ASCE University of New Orleans name high with their outstanding performance in the competition! It was all possible thanks to the hard work the captains and team members of our teams poured into these projects. We will like to finish off by saying that we are truly grateful to everyone who was part of this amazing experience.

The ASCE Board has been exceedingly active these semester; with a total of almost five General Body Meetings so far. The Board is now preparing for our next activity which is a joint career fair with the University of New Orleans, which we already know is going to be a huge success. The Earth Day Event took place Friday, April 21st at Lakefront. Thank you for joining us for the networking and grill out! Thanks to all who helped!



UNO Engineering Students Win Regional Steel Bridge Competition, Advance to Nationals

A team of University of New Orleans engineering students won the steel bridge competition at the ASCE 2023 Gulf Coast Student Symposium, held March 9-11 at the University of South Alabama in Mobile. UNO's team defeated 15 other universities from Louisiana, Mississippi and Alabama. The Privateers will advance to the national competition in June in San Diego, CA.

The on-site construction student team members are Yelitza Perez, Gavin Trinh, Steven Hernandez, Maria Umanzor and Francisco Espinoza. All are civil engineering majors, with the exception of Espinoza, who is majoring in construction management. Several additional civil engineering students contributed to the design and

fabrication. It was the first time UNO competed in the steel bridge event since 2018.

"Though our UNO civil engineering program is small relative to some of the universities we competed against, we are fortunate to have strong support from UNO president Dr. John Nicklow, Dr. Robert A. Savoie College of Engineering Dean Dr. Lizette Chevalier and the local civil engineering industry. Our students have unbelievable perseverance to make things happen," said Gianna Cothren, professor of civil engineering and ASCE faculty adviser. "Our team captain, Yelitza Perez, saw the steel bridge competition for the first time in 2022 and became determined to compete the following

year. She put together a team of civil engineering students who had never seen this competition and won first place overall in 2023. It's simply amazing what driven students can accomplish."

The American Institute of Steel Construction and American Society of Civil Engineers sponsor the steel bridge competition as an annual event intended to demonstrate knowledge and skills of future generation design professionals. The idea of the competition is to extend the classroom knowledge with a full project experience that involves design, fabrication, erection and testing of a steel bridge that meets the client's specifications while balancing performance and economy.

The 23-foot-long steel bridge is a 1 to 10 scaled model designed and fabricated by students in UNO's Civil Engineer Structural lab. The competition includes structural costs based on total weight; construction cost based on the number of builders in a timed race to erect the bridge; and safety, with time penalties for dropping bolts, nuts or tools and stepping outside the construction zone or in the river. Aesthetics and use of materials that promote robustness without wastefulness are also judged in overall performance.

UNO won first place overall and also received individual awards of excellence in the categories of stiffness, lightness and structural efficiency. The team's victory comes with an invitation to compete in the National AISC Steel Bridge Competition in San Diego from June 2-3, 2023.

UNO will host the 2024 ASCE Gulf Coast Student Symposium on March 7-9. The event will include the steel bridge, concrete canoe, surveying and sustainability competitions, along with several other competitive civil engineering events.

To support our UNO ASCE team in the 2023 National Steel Bridge Competition or to support UNO ASCE hosting the 2024 Gulf Coast Student Symposium, please follow this link: <https://fundraise.givesmart.com/vf/UNOBUILDS>


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 CHICAGO | OCT. 18-21

Registration is officially open for the ASCE 2023 Convention!

October 18-21, 2023
Chicago

Register now

<https://convention.asce.org/>

See you in Chicago! Chicago is a hub for innovation and technology, the home of many leading research institutions and engineering firms, and has a thriving start-up scene.



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— CALENDAR OF EVENTS —

2023

June 14-17, 2023, International Conference on Transportation & Development, Austin, Texas <https://www.asce-ictd.org/>

October 18-21, 2023, ASCE National Conference 2023, Chicago, IL – <https://convention.asce.org/>

November 16-18, 2023, ASCE INSPIRE Conference 2023, Arlington, Virginia

Events are constantly being updated online:

For ASCE Society events please see online:
https://www.asce.org/conferences_events/
https://www.asce.org/student_conferences/

For ASCE Baton Rouge events please see online:
<http://branches.asce.org/baton-rouge/events>

For ASCE Shreveport events please see online:
<https://www.facebook.com/ASCEshreveport/>

For ASCE Acadian events please see online:
<http://branches.asce.org/acadiana/events>

For ASCE NOLA events please see online:
<http://asceneworleans.org/events/>

For more events visit the ASCE Events Calendar: <http://www.lasce.org/calendar.html>

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