FALL 2020

ENGINEERING INC.

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WATERSHED MOMENT

Barge Design Solutions' reclamation project wins big at the 2020 Engineering Excellence Awards

Spotlight on Black-Owned Firms

PLI Survey: Member Firms Survive and Thrive

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Fall 2020

The Copperhill Watershed Restoration in Ducktown, Tennessee, by Barge Design Solutions in Nashville, won the 2020 Grand Conceptor Award.

ACEC RESEARCH INSTITUTE

The ACEC Research Institute provides the industry with cutting edge trend data, research and analysis to help firm owners make decisions and arm the Council with information to advance engineering's essential value to a broad audience.

The ACEC Research Institute wishes to extend its sincere appreciation to its generous contributors

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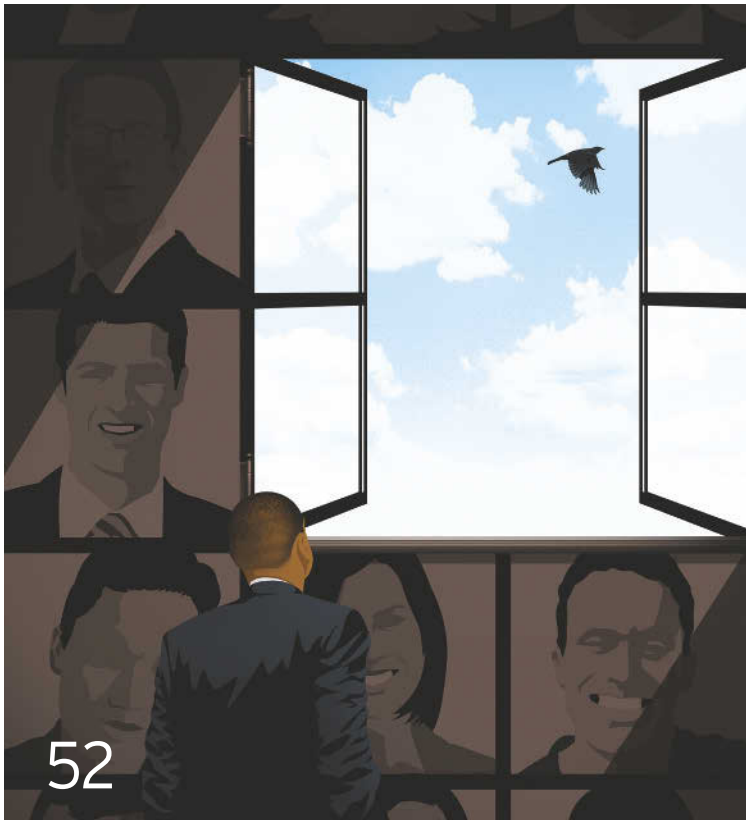

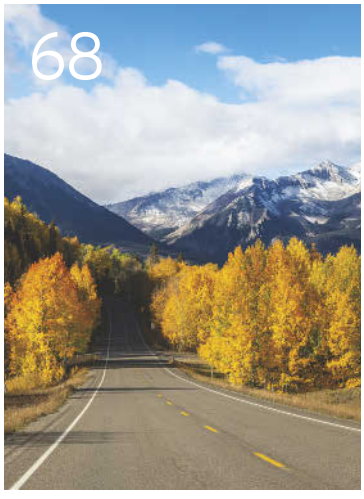

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COVER: BARGE DESIGN SOLUTIONS

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ACEC's award-winning quarterly magazine *Engineering Inc.* provides expert analysis on all issues affecting the overall business of engineering. Other highlights include in-depth interviews with major policy makers whose decisions impact bottom lines; updates on critical advocacy issues and industry news, best practice management trends and marketplace projections, along with member firm innovations and announcements.

Despite 2020 Challenges, Council Does Not Miss a Beat

It was a turbulent 2020 for the world, the business marketplace, the engineering industry, and ACEC. Looking back, the deadly pandemic presented many unique operational challenges that few could ever envision, much less instantly pinpoint best practices for implementing.

Being the strong and resilient federation that we are, however, it didn't take long for new strategies to be established to deal with the new normal and to pave a path moving forward.

One essential Council triumph was maintaining our strong connection with Member Organizations and Member Firms, despite a new socially distant, virtual workplace. Those initiatives include the launch of our Rescue/Recover/Rebuild education and advocacy program, successfully holding our first virtual Board of Directors meeting, offering dozens of free roundtables and education webinars, and weekly calls with MO leaders to share strategies.

As the pandemic raged on, the Council secured funding for transit agencies and airports in the CARES Act relief package, as well as inclusion of tax provisions to support cash flow in stimulus packages. We also helped extend Paycheck Protection Program loans and increased flexibility on loan forgiveness.

Later in the year we successfully held our 2020 Virtual Fall Conference, soon followed by the 2020 Virtual Engineering Excellence Awards Gala—labeled "a celebration and multi-sensory experience for our members" *(coverage of both virtual events begins on page 14).*

Congratulations to Barge Design Solutions and its Copperhill Watershed Restoration in Ducktown, Tennessee, which won the 2020 Grand Conceptor Award as the year's most outstanding engineering achievement, and to all the 2020 winners who were among 203 entries, the most in EEA's 53-year history.

Congratulations also to President-elect Joe Biden and Vice President-elect Kamala Harris on their likely victory. Our mission is to make sure the business interests of our Member Firms are heard early and often by this new White House *(see post-election update on page 50).*

This issue also highlights several black-owned ACEC Member Firms from across the nation that share insights on their engineering careers, and the challenges of starting and growing their businesses *(see page 52).*

Here's wishing each of you a joyous and safe holiday season.

Charles J. Gozdziewski
ACEC Chairman

Linda Bauer Darr
ACEC President & CEO

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Stay connected for developing updates on the 2021 ACEC Annual Convention and Legislative Summit, scheduled for April 25-28. See www.acec.org for updates!

Warehouse Logistics, Data Center Markets Emerge During Pandemic

By Gerry Donohue

Despite the economic turmoil of the past year and continuing uncertainty moving forward, leaders of engineering firms in the land development sector are remarkably optimistic. In interviews with practice leaders from firms on both coasts and in the Midwest, a consistent picture of the market emerged, where a few extremely active sectors are more than making up for the softness of others.

"The market is volatile," says DJ Hodson, senior principal at Langan in San Francisco. "Some sectors are strong, and others are flat. There are a lot of question marks, but there are also substantial opportunities if your firm is well positioned and capable of supporting players in growth markets."

BUCKING THE PANDEMIC

The two strongest markets for these firms are warehouse/logistics and data centers. These sectors have climbed rapidly over the past year due to the expansion of e-commerce and the work-from-home environment due to the COVID-19 pandemic.

"The logistics market keeps putting projects on our radar," says Paul Navarro, president and CEO of Navarro & Wright Consulting Engineers, Inc., in New Cumberland, Pennsylvania. "The market is up 20 to 30 percent from where it was a year ago."

Navarro & Wright's location contributes to that activity, with the Pennsylvania Turnpike crossing I-81 near Carlisle and I-78 veering off to New York City. Many logistics firms see the region as an ideal East Coast location. "We're seeing most of

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the activity in the 200,000-to-400,000-square-foot projects, although we are seeing some of the million-square-footers as well," Navarro says.

Len Swartz, a senior vice president at Olsson in Omaha, Nebraska, says the warehouse market is extremely strong throughout the Midwest. "It's a matter of how quickly we get the projects to market," he says.

Olsson has been active in the data center market for years, and Swartz says, "We have seen a lot of growth this year. There is a lot of enthusiasm among those clients, and we see these markets continuing being in build mode for the next five to seven years."

The West Coast is no different, says Hodson, whose team is active with warehouse work in the Bay Area and the Inland Empire, and data center projects in Silicon Valley. He also forecasts growth over the next few years. "These projects keep coming and growing," he says. "We think these sectors will continue to be really strong for us."

The residential market is also plowing ahead, particularly single-family. "It's really busy," says Navarro, whose firm works throughout the mid-Atlantic states. "There is a shortage of single-family housing throughout our market."

Although some pundits have speculated that the surge in single-family projects is due to a pandemic-induced flight from the cities to the suburbs, Swartz doesn't see it. "Demand is really high, but I attribute it more to pent-up demand and people wanting to upsize," he says. "We expect the market to remain strong for at least a few years."

Another market that should continue to do well is health care. "We're seeing more medical," says Navarro. "I don't know if that's due to COVID or just that the population is aging."

WRONG PLACES

The COVID-19 pandemic and the resulting economic slowdown have hit several market sectors especially hard, and their future performance is cloudy at best.

"We see a lot of uncertainty in the retail market, although I believe that had already started before COVID," says Swartz. "There's been a fundamental change in what customers want."

It's somewhat of a zero-sum game, with warehousing growing at the retail market's expense, but developers continue to look for opportunities in the sector. "We're seeing some adaptive reuse projects," says Swartz. "If people don't want to go to the mall anymore, can we make it into something profitable that reflects the market today? I don't think anyone has come up with the right formula yet, but a lot of people are working on it."

The office market is also hurting, with Navarro estimating that it's off 40 percent in his market. He says the urban office market has taken the brunt of the hit, but suburban office parks are also suffering.

Developers are adapting in this market as well, says Hodson, "taking a hard look at their office campuses and adding significant amounts of residential, and in some cases, e-commerce fulfillment centers."

Looking long term, Hodson says the big unanswered question for the office sector is what the extended impact of working from home will be. The most likely outcome, he says, is somewhere between the old office-centric paradigm and the current remote work environment.

ANOTHER QUESTION MARK

Firms are experiencing a disparity in the length of the permitting and entitlement process in the wake of the pandemic.

In his Midwestern markets, Swartz says, "for the first couple of months, cities and review agencies were really struggling, and it caused some slowing down, but now they seem to be doing well."

Hodson says smaller cities and towns on the West Coast have also caught up, but the big cities are lagging.

"The larger cities aren't able to keep up with their entitlement and planning processes," he says. "When you go through the planning process now, it can take up to a year longer than it would have taken a year ago because of COVID and budget issues.

"Unfortunately, the bigger cities are where a lot of the work is, and if they don't figure out how to operate efficiently, it could start to slow things down." ■

Gerry Donohue *is ACEC's senior communications writer. He can be reached at gdonohue@acec.org.*

ACEC Research Institute Scholarship Program Continues to Award Profession's Best and Brightest

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One of the biggest challenges facing engineering is maintaining a steady inflow of new, young talent. It's not just a question of numbers. So often these are the team members who breathe new life and innovation into our profession.

The ACEC Research Institute Scholarship Program has been the leading program for helping the best engineering students in undergraduate and graduate programs around the country complete their educations and enter our industry. Over the years, the ACEC Research Institute has awarded 83 scholarships totaling $460,000.

Each year, dozens of engineering students vie for the scholarships, which are awarded under the auspices of the College of Fellows. Prospective students submit applications through their state Member Organizations, and the winners are selected by the Fellows' National Scholarship Committee.

Members of the Committee are Chair Bob Barnett of Barnett Jones Wilson; Cathy Ritter of Constellation Design Group; Doris Willmer of Willmer Engineering; Jane Rozga of GHD; and Donald Sipher of ATL.

In 2020, 113 Member Firms and individuals contributed to the annual scholarship fund, making it possible to award nine scholarships. We extend special thanks to the platinum donors, who each gave $1,000 or more: AXA XL; Thomas A. Ritter; Ruby+Associates; and Terracon. For more information on making a tax-deductible contribution or to see the full list of donors, visit **www.acecresearchinstitute.org**.

"I would like to thank both the donors to the fund and the members of the Fellows National Scholarship Committee," says Fellows Committee Chair Alain Gallet of Terracon. "Their generosity and hard work are essential for the success of this program."

THE 2020 ACEC RESEARCH INSTITUTE SCHOLARSHIP PROGRAM WINNERS ARE:

Mitchael Sieh, who is working toward a master's degree in architectural engineering at the University of Nebraska–Lincoln, was awarded the $10,000 ACEC Scholar of the Year.

Alisha K. Stidam received the $10,000 Jim Kleinfelder ACEC Scholarship. She is working on a master's degree in civil engineering at Lawrence Technological University.

Jennifer M. Mack, who is studying for a master's degree in architectural engineering from the University of

Nebraska–Lincoln, received the $5,000 ACEC Life/Health Trust (LHT) Scholarship.

Matthew Schomacker, who received the $5,000 Lennox Nishimura Scholarship, is working toward a bachelor's/master's degree in civil engineering from Northeastern University.

Ashlee Jean Dikoff received the $5,000 a/e ProNet Scholarship. She is working on her bachelor's degree in civil engineering from the South Dakota School of Mines and Technology.

Teresa Magana received the $5,000 Professional Liability Agents Network (PLAN) Scholarship and is studying for a master's degree in geotechnical engineering at California State University, Sacramento.

Katelyn Gendron, who received the $5,000 Small Firm Coalition Scholarship, is working on a bachelor's/master's degree in civil engineering from Northeastern University.

David Scot Carpenter was awarded the $3,000 College of Fellows Scholarship. He is working on a bachelor's degree in mechanical engineering at Auburn University.

Amanda G. Kalab was awarded the $2,500 Coalition of American Structural Engineers (CASE) Scholarship. She is working toward a master's degree in civil engineering with structural emphasis from Washington State University.

The ACEC Research Institute has begun accepting applications for the 2021–2022 academic year. The Institute will award six general scholarships and one specialty scholarship (CASE Scholarship). For more information, visit **www.acecresearchinstitute.org**.

The ACEC Research Institute has awarded **83 scholarships totaling $460,000**

ACEC Seeks Clarification on Treatment of Forgiven PPP Loans, Firm Overhead Rates

Council President and CEO Linda Bauer Darr sent letters to Congress, the Treasury Department, the Small Business Administration, and the White House Office of Management and Budget seeking clarification that engineering firms do not need to provide a credit on government contracts for forgiven Paycheck Protection Program (PPP) loans.

A provision of the Federal Acquisition Regulations (FAR) could require firms contracting with government agencies to calculate a credit to their indirect costs in the amount of a forgiven PPP loan. This would impact not only federal contracts, but state Department of Transportation contracts and others that apply the FAR cost principles.

If a firm has to issue a credit to its indirect cost rate for the amount of a forgiven PPP loan, it would be billing at a much lower rate in subsequent years. "Requiring a credit from a small business government contractor who has properly qualified for loan forgiveness essentially requires them to repay the loan through such credits," Darr explained in the letter. "The loan is thus not forgivable, contrary to the intent of the PPP program and harming small businesses at a time when they are attempting to recover from the economic downturn."

ACEC asked that PPP implementation guidance make clear that the FAR credits clause (FAR 31.201-5) will not apply to the proceeds of PPP loans for small business government contractors who have properly qualified for loan forgiveness.

When combined with the IRS ruling that covered costs are not tax deductible, the sum of the impact of the credit and the tax on the loan forgiveness could easily exceed the amount of the loan forgiveness. ACEC and a broad coalition of business groups have advocated for legislation to correct the tax deductibility of expenses.

The Council also reached out to key congressional committees on the FAR credits provision. "Failing to address this issue would undercut an essential pillar of economic relief for this critical sector," Darr wrote to lawmakers, asking for legislation or regulatory intervention.

Federal Contractors Oppose Executive Order That Bars Certain Diversity and Inclusion Training

On Sept. 22, a new executive order (EO) set forth the policy of the United States "not to promote race or sex stereotyping or scapegoating" and prohibits federal contractors from instilling such views in their employees in workplace diversity and inclusion trainings.

ACEC joined with members of the federal contracting community in a letter to President Donald Trump raising numerous concerns and objections to Executive Order 13950—Combating Race and Sex Stereotyping.

The letter states: "The EO seeks to identify specific concepts that would be prohibited, but the description of these concepts leaves considerable ambiguity as to what content would not be permitted in diversity and inclusiveness (D&I) training. Furthermore, there is a great deal of subjectivity around how certain content would be perceived by different individuals. For example, the definition of 'divisive concepts' creates many gray areas and will likely result in multiple different interpretations. Because the ultimate threat of debarment is a possible consequence, we have heard from some companies that they are suspending all D&I training.

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"This outcome is contrary to the EO's stated purpose, but an understandable reaction given companies' lack of clear guidance. Thus, the EO is already having a broadly chilling effect on legitimate and valuable D&I training that companies use to foster inclusive workplaces, help with talent recruitment, and remain competitive in a country with a wide range of different cultures.

"We believe the EO will create confusion and uncertainty, lead to non-meritorious investigations, and hinder the ability of employers to implement critical programs to promote diversity and combat discrimination in the workplace. We urge you to withdraw the Executive Order and work with the business community on an approach that would support appropriate workplace training programs."

The Executive Order became effective immediately when signed on Sept. 22, but the requirements for federal contractors and subcontractors will apply to agreed contracts entered 60 days after the date of the order: Nov. 21.

ACEC will continue to work with business coalition allies to urge the White House to withdraw the order.

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House Approves Wide-Ranging Energy Legislation; Senate Bill Stalled

The House passed comprehensive energy legislation in September that featured several ACEC-backed provisions. The Clean Economy and Innovation Act (H.R. 4447) would expand research, development, demonstration, and commercialization of various technologies including nuclear, hydropower, pumped storage, marine energy, next-generation grid-scale energy storage, and advanced geothermal energy.

The bill also focuses on technologies to enhance secure, reliable, and resilient electric grid operations. ACEC also supported energy security provisions to advance education, training, and best practices in electric grid cybersecurity, physical security, grid resilience, and emergency response.

Other major provisions in the House bill included workforce development programs, Advanced Research Projects Agency—Energy (ARPA-E) funding, voluntary building codes for energy efficiency, and measures to address critical mineral supplies.

A companion effort in the Senate, led by Energy & Natural Resources Chair Lisa Murkowski (R-Alaska), failed to advance earlier in the year due to disputes over several proposed amendments, despite bipartisan support for the underlying package. ACEC has actively supported the American Energy Innovation Act (S. 2657), which is designed to improve environmental performance, enhance reliability, and keep domestic energy affordable.

If the Senate is unable to approve a bill in the post-election session, work on energy legislation will resume in the new Congress in 2021.

ALEX EDELMAN-POOL/GETTY IMAGES

Lisa Murkowski (R-Alaska)

Stimulus Negotiations Continue

Congress and the administration continued to discuss but failed to agree on an additional COVID-19 response package prior to the November election, despite bills floated by Senate Republicans in July and August and legislation passed by the House in October.

It is expected that they will return to negotiations over another stimulus bill after the election and consider measures such as extended unemployment benefits, additional payments to families and individual taxpayers, support for schools, and funding for state and local governments.

There are also likely to be modifications to the Paycheck Protection Program (PPP) loans for small and midsized businesses. ACEC continues to press Congress to clarify that expenses covered by PPP loan forgiveness should be tax-deductible business expenses, a position contradicted by an IRS ruling.

New stimulus legislation could also include modifications to the Employee Retention Credit (ERTC) that would allow PPP borrowers to also use the ERTC. Liability protections for employers that follow governmental guidance on coronavirus protection are a key priority for Senate Republicans but face opposition among House Democrats.

ISSUES ON THE MOVE	WHAT'S NEXT
FAR Credits Clause and PPP Loans	Possible action on corrective legislation during year-end session
Next Stimulus Package	Possible action post-Election Day
Diversity & Inclusion EO	Potential corrective action early 2021

For More News

For legislative news, visit ACEC's *Last Word blog* online at www.acec.org.

Communications Market Remains Strong

By Erin McLaughlin

The communications market sector may be the most resilient for engineering and construction firms during the current pandemic-caused recession. According to FMI's third-quarter 2020 report, only the communications sector will rise each year between 2020 and 2024, to $27 billion from $23 billion in annual design and construction spending.

Once considered a niche market, telecommunications design and construction is becoming increasingly mainstream due to its growth, which parallels the growth of connected devices and the massive amounts of data moving across the internet. The need for social distancing during the COVID-19 pandemic has translated into millions of Americans needing to work from home, engage in distance learning, shop via the internet, and even have medical appointments using telemedicine. Increased streaming of media and meeting platforms is not just a market trend—it's a life necessity. Analysis by the Uptime Institute finds that media streaming represents the biggest portion of global internet traffic and is, in fact, the "energy guzzler of the internet."

For broadband there remains a significant challenge in bringing connectivity all the way to residences and small businesses nationwide, particularly in rural areas. According to the Federal Communications Commission (FCC) *2020 Broadband Deployment Report*, 22.3 percent of Americans in rural areas and 27.3 percent of those on tribal lands lack access to high-speed internet. The U.S. Chamber of Commerce's Chamber Technology Engagement Center reports that if rural small business had broadband access, annual gross domestic product and employment would increase by $41.3 billion and 316,605 jobs, respectively. In addition, rural access would likely slow out-migration from rural areas, improving overall economic development. Private telecommunications companies have had little incentive to invest in rural connectivity on their own, as the customer base is often not dense enough to support the cost of the infrastructure.

Recognizing the need for federal action in connecting rural America to broadband, the FCC in 2010 established the National Broadband Plan, which initiated a decadelong push for connectivity, with considerable activity in the last couple of years. Besides the FCC, the U.S. Department of Agriculture (USDA) is the main federal agency with rural broadband initiatives. Key actions and programs of these government agencies include:

- In 2018, the USDA created **ReConnect**, a rural broadband program that is part of the Rural Utilities Service. Congress allocated ReConnect $1.15 billion for grants, grant-loan awards, and low-interest loans for infrastructure, including the cost of construction, improvement, and/or acquisition of facilities and equipment. The second round of funding closed on April 15, 2020, with applications currently under review.
- In January 2020, the FCC established the **Rural Digital Opportunity Fund** to cover the deployment of high-speed broadband networks in rural America. Through a two-phase reverse auction mechanism, the FCC will direct up to $20.4 billion over 10 years to finance networks.
- In March 2020, President Donald Trump signed into law the bipartisan-supported **Broadband**

TOP CLIENTS FOR THE TELECOMMUNICATIONS/BROADBAND MARKET:

Cable Companies: Comcast, Charter, Cox, Altice, Mediacom, Cable One, WOW (WideOpenWest), and Atlantic Broadband

Phone Companies: AT&T, Verizon, CenturyLink, Frontier, Windstream, Consolidated, TDS, and Cincinnati Bell

Electric Cooperatives: Basin Electric Power Cooperative, Oglethorpe Power Corp., Tri-State Generation & Transmission Association, Central Electric Power Cooperative, Associated Electric Cooperative, NC Electric Cooperatives, Seminole Electric Cooperative, Brazos Electric Cooperative, Great River Energy, and Old Dominion Electric Cooperative

Sources: Leichtman Research Group, Inc., and the National Cooperative Bank Co-op 100 list


THOMAS SVOGEL/GETTY IMAGES

Deployment Accuracy and Technological Availability Act (DATA), which requires the FCC to collect granular service data and develop maps detailing rural broadband availability.

The activities around funding and financing rural broadband deployment, and the targeting of electric cooperatives (referred to as "co-ops") to play a unique role in this deployment, present new business opportunities for engineering firms. Co-ops were created after President Franklin D. Roosevelt established the Rural Electrification Administration in 1935, bringing electricity to rural parts of the country in the 1930s and 1940s. Today there are still 900 co-ops, which are independent electric utilities owned by the members they serve, and co-ops are getting the opportunity to again transform rural America through broadband deployment. In 2010 only one co-op was providing broadband connectivity, but as of 2019 more than 140 were offering broadband, according to the Institute for Local Self-Reliance. Besides supporting their rural customers, there is an additional driver for co-ops, which need to add fiber to modernize their electrical grids, so they are "smarter," more resilient, and efficient. According to the National Rural Electric Cooperative Association, more than 200 co-ops that are not yet deploying broadband are seriously exploring this as an additional offering.

The Private Side is a regular department of *Engineering Inc.*, focusing on the private-sector markets listed above, and information and insights on public-private partnerships and economic data relevant to the industry. For more on these topics, subscribe to ACEC's bimonthly *Private Industry Briefs*: **https://programs.acec.org/industrybrief/**.

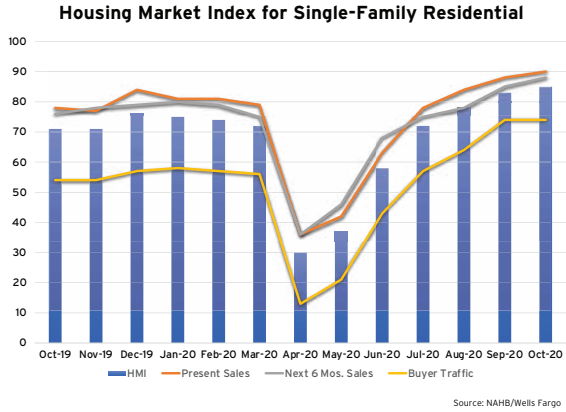
Erin McLaughlin *is ACEC's vice president of private market resources. She can be reached at* ***emclaughlin@acec.org****.*

Single-Family Residential Surges

The single-family housing market is emerging as a star during the economic recovery from the COVID-19 pandemic.

Single-family homebuilding jumped 8.5 percent to a rate of 1.108 million units in September, according to monthly U.S. Census Bureau and U.S. Department of Housing and Urban Development joint numbers. This is the highest rate of single-family starts since June 2007, according to the *World Property Journal*. Permits to build single-family homes—a leading indicator—increased 7.8 percent to the strongest level since 2007, according to Bloomberg, which also noted that construction of single-family homes in September reached the highest level in more than 13 years. In the nation's largest region, the South, new single-family home construction starts rose 17.7 percent—a 13-year high. Single-family homes accounted for 78 percent of total homebuilding, which is the largest share recorded since 2010. Multifamily construction, which makes up the rest of the market, is not experiencing growth.

Analysts attribute single-family growth to several factors: record-low interest rates, families looking for more space as they engage in work-from-home and remote schooling during the pandemic, and the demographics of the millennial generation shifting to the suburbs.



It is no surprise that builder confidence is soaring. The National Association of Home Builders/Wells Fargo Housing Market Index (HMI) rose by 2 points to an all-time high of 85 in October, up from the previous all-time high of 83 recorded in September. These months are the first with readings over 80 in the index's 35-year history. The HMI surveys respondents on three components: conditions for present single-family sales, conditions for single-family sales over the next six months, and prospective buyer traffic. ■

2020 ACEC VIRTUAL FALL CONFERENCE WRAP-UP

First-Ever Virtual Fall Conference Exceeds Expectations

The 2020 ACEC Fall Conference drew 931 attendees, a strong result considering it was the first ACEC Fall Conference presented in a totally virtual format.

"The event was outstanding and provided a real value to everyone who attended," said Joseph Romano, principal and vice president at Langan. "The planning and logistics must have been overwhelming, but it resulted in the next best thing to being in one place."

"The Virtual Fall Conference was excellent and far exceeded my expectations," said Past ACEC Chair Ted Williams, president of Landmark Science & Engineering. "While I would prefer an in-person function, everything seemed to run smoothly with a lot of good interaction with the attendees."

The three-day online event featured an all-star lineup of speakers, panel discussions, education sessions, roundtables, and even a virtual exhibit hall.

Other Conference highlights included:

- The Board of Directors considered two amendments to the Strategic Plan. It approved adopting strategies to benefit Member Firms in the battle to prevent the commoditization of engineering services. The Board tabled, for further discussion, a proposed amendment to "promote economic and social equality" as part of the "Essential Value to Society" goal.
- ACEC/PAC still generated just over $35,000 in donations, which compares favorably to the $40,000–$50,000 average raised during a typical in-person Conference, and without a signature ACEC/PAC fundraising event. Members also attended 253 virtual meetings with congressional representatives during the Conference.
- Council education programs also received strong member participation with 18 sessions attended by at least 170 members.

NEVER FORGET LIFE'S DREAMS, NEVER STOP PURSUING

The path to overcoming severe depression and discovering positive life direction has become a lifelong and nationally applauded journey for Ben Nemtin.

The Victoria, British Columbia, native provided 2020 Virtual Fall Conference General Session attendees with an inspiring voyage centered on the importance of defining then pursuing life dreams while overcoming self-doubt or a perceived overburdened daily life.

Nemtin cited a survey of elderly people inquiring about their major regrets in life. More than 3 in 4 respondents (76 percent) said their most major regret was "Not living my ideal self."

"Prioritize and don't forget the most important things to you in life," he said. "It is vital for your own well-being, mental health, and for those around you. If you can't take care of yourself, you can't take care of others."

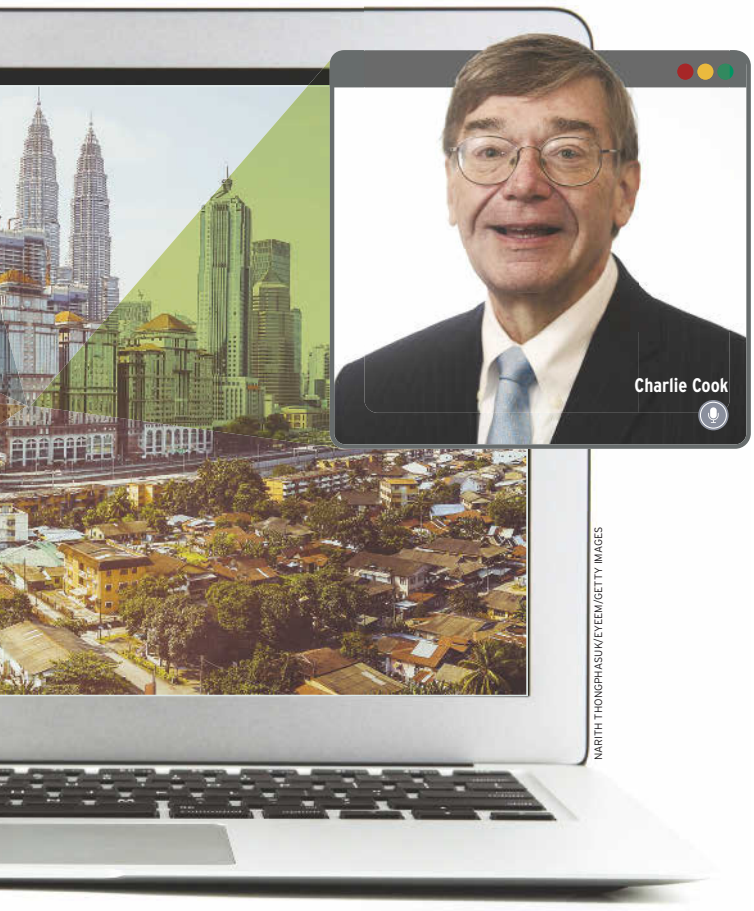
Nemtin, author of the *New York Times* bestseller *What Do You Want to Do Before You Die?*, was named one of the World's Top 30 Organizational Culture Professionals in 2020 by Global Gurus.

A decade ago, after overcoming depression, he and three friends embarked on a road trip to begin collectively fulfilling their combined 100-item bucket list before they died. The list was posted to their website, which drew the attention of strangers along the way, many of whom offered help with items.

To date, the group has achieved 91 of the original 100 bucket list items, including being interviewed by Oprah, singing the national anthem at an NBA game, having a beer with Prince Harry, and playing basketball with then-President Barack Obama.

During a second road trip, the group decided that for every bucket list item achieved, they would help a stranger achieve something on their own bucket list. The highlight was helping an Ohio teenager, born missing half an arm, obtain a much-wished-for bionic arm.

"Sometimes failure happens merely because you stop trying," Nemtin noted. "You can inspire yourself merely by generating progress toward your dream."



NARITH THONGPHASUK/EYEEM/GETTY IMAGES

CHARLIE COOK'S FORECASTS ON TARGET FOR WHITE HOUSE, SENATE, MISSES ON HOUSE

Legendary political analyst Charlie Cook captivated a Virtual Fall Conference audience with an analytical deep dive prior to the presidential and congressional elections.

A leading authority on U.S. political trends and publisher of *The Cook Political Report,* Cook painted a problematic task for GOP prospects in the upcoming general elections, highlighted by the race for president.

While he intently studies polling data, he cautioned that election polling "doesn't always tell you who's going to win the game," but certain numbers can reveal a most likely outcome.

Cook also pointed to the president's job approval ratings. "When you don't have an incumbent, it becomes a choice election," he said. "When there's an incumbent, it becomes a referendum: Do you want to extend this president's contract for another four years? Those voting decisions are generated over years, not just a day."

Cook emphasized the pandemic would be Trump's biggest hurdle, noting the many scandals throughout his term never really affected his approval rating. "Then the pandemic hit. He was behind Biden but still in striking distance—then his credibility became strained." At the time, Biden was leading in national polls by 4–6 points.

In the House, he predicted Democrats would maintain or even grow their advantage, but Republicans gained at least nine seats to significantly narrow the gap to the current D-222–R-211. In the Senate, Cook believed the GOP was fighting against a "political environment which has metastasized down to them." The GOP had a 53-47 pre-election majority. The post-election tally stood at R-50–D-48, with the two Georgia Senate runoff elections still to be held.

WORKPLACE DIVERSITY AND INCLUSION EFFORTS NEED COURAGE TO SUCCEED

Noted workforce diversity and inclusion (D&I) consultant Daisy Auger-Dominguez delivered an inspirational presentation on transforming workplace D&I polices into practice.

Auger-Dominguez, chief people officer at Vice Media Group, pointed to a national workforce study that said D&I was now a No. 1 talent management priority for CEOs. "This has been a priority for years, yet company leaders are painfully aware that their efforts are still coming up short," she said.

Her two decades of D&I consultancy include leading organizational transformations at Moody's Investor Services, Walt Disney Television, and Google.

Yet Auger-Dominguez has found that many company leaders remain confused about what a successful D&I workplace really entails.

"It takes courage to dismantle inequity in the workplace," she said, adding that it is critical for company leaders to pay attention to understand if staff members believe they belong and are in a safe place to express their opinions.

INFRASTRUCTURE LEGISLATION IN 2021

A panel of key industry stakeholders discussed pandemic-related opportunities and challenges they expect in 2021.

COVID-19 has hit these industries hard. Kevin Burke, president and CEO of the Airports Council International–North America, said air travel fell 98 percent at U.S. airports in April and even now remains down 65 percent. On the public transit side, Paul Skoutelas, president and CEO of the American Public Transportation Association, said ridership has dropped 70 percent.

"The obvious challenge is the market," said American Road & Transportation Builders Association President Dave Bauer. "A lot of the work [in recent months] was already in the pipeline. Looking forward, revenue shortfalls are going to be real."

On the possibility of a stimulus package passing during the congressional lame duck session, American Highway Users Alliance President and CEO Laura Perrotta said, "So much depends on what happens with the elections, but there are so many moving parts that it's going to be very challenging."

Looking ahead to 2021, the panelists were more optimistic. "The need to address infrastructure next year will be very strong," Skoutelas said. "There is a bigger appetite on the Democrats' side, but regardless of the election results, it will be a great opportunity to get something significant done for infrastructure."

The panelists agreed that Biden and the Democrats would make climate change a big part of any infrastructure legislation. "We will see aggressive work on electric vehicles, mass transit, and sustainable infrastructure," Perrotta said.

PANEL ADDRESSES FEDERAL/ LOCAL INFRASTRUCTURE RELATIONSHIP

Elected officials and a panel of firm leaders discussed the recommendations in the recently published *Community Serving Infrastructure: A Playbook for a New Infrastructure Partnership*, which looks at improving how the federal government works with local governments to build the nation's infrastructure.

The Playbook was jointly produced by the ACEC Research Institute and the Accelerator for America's New Partnership on Infrastructure.

Los Angeles Mayor Eric Garcetti, who chairs Accelerator for America, kicked off the event by highlighting the importance of infrastructure to the national economy, saying it is "the key to the recovery."

Rep. David Price, D-N.C., chair of the House Appropriations Subcommittee on Transportation, Housing and Urban Development, and Related Agencies, said, "Bigger is better. We're long overdue for major infrastructure investment, and that includes transportation, water, broadband, and housing."

Rep. John Katko, R-N.Y., ranking member of the Subcommittee on Economic Development, Public Buildings, and Emergency Management, added, "This discussion could not be more timely," and Congress needs to "continue pushing for substantive action on infrastructure."

The panel discussion focused on how to improve federal infrastructure financing and funding programs. The premise of the Playbook is that the federal government needs to conform its programs to better meet local needs. "Too often we see projects that are tailored to meet a scoring criteria rather than what's important for a local community," said Steve Lefton, president and CEO of Kimley-Horn. "We have to allow the community to address local needs, and part of that means trusting local communities."

Panelists pointed to pre-development funding as an example of a program that the federal government downplays but local

Council President and CEO Linda Bauer Darr informed the Board of Directors "that the engineering industry has weathered the pandemic better than most" because the industry was deemed essential, firms were agile in managing cash flow and accessing federal relief programs, and they effectively transitioned from the office to virtual work.

ACEC Chairman Charlie Gozdziewski emphasized the importance of soon achieving robust infrastructure investment. "It is ACEC's mission to educate our elected leaders on the immense economic and social value that new infrastructure will create. Our industry is essential to the future of America. Our success is America's success."

Behind the scenes at ACEC headquarters with President and CEO Linda Bauer Darr and Senior Vice President of Advocacy Steve Hall, while moderating the industry CEO panel: Navigating the COVID Economy.

governments value highly. "Pre-development funds are especially important for smaller communities," said Sean McMaster, national practice consultant for HNTB's Advisory Services, Strategy & Transformation Group, because they may not have the resources to move projects far enough along to qualify for the broader federal infrastructure programs.

One of the key Playbook recommendations is for infrastructure programs to focus on shovel-worthy projects, which John Porcari, former president of WSP's U.S. Advisory Services, described as "transformative projects that will build tomorrow's economy. It's worth putting in the time and money to make them shovel-ready as opposed to focusing on ones that are ready to go."

PANEL DEBATES INFRASTRUCTURE, STIMULUS PROSPECTS

A bipartisan panel of U.S. representatives discussed the prospects for new stimulus legislation, an infrastructure package, climate change, and working across the aisle following the election and into 2021.

Rep. Rodney Davis, R-Ill., said "partisanship has killed any chance of passing a stimulus bill this year," but Rep. Sean Patrick Maloney, D-N.Y., said he was hopeful that Congress could pass a series of stand-alone measures.

Maloney went on to say that a Democratic president and Congress would "have a robust stimulus package in the new year and follow that up with an infrastructure package."

Rep. Stacey Plaskett, D-Virgin Islands, said passing infrastructure legislation "is one of the most important things we need to do," adding that investments need to be made in resilient infrastructure and funding needs to be more widely distributed to smaller localities.

Lawmakers said climate change will be a sticking point in any infrastructure negotiations, with Davis saying that the United States is already a world leader in reducing greenhouse gases, and any new legislation must not be so radical that it damages the economy.

"If the Democrats win," Maloney countered, "there will be very significant climate provisions."

On bipartisanship, Davis said, "We need to work for solutions rather than play to the partisan ends of the political spectrum." ■

2020 FALL CONFERENCE AWARD WINNERS

2020 NEWLY ELECTED FELLOWS

Andrew Cummings, Connelly & Wicker, Jacksonville, Florida
J. Scott Gombar, Eisman & Russo, Jacksonville, Florida
Bruce Sadler, Austin Brockenbrough & Associates, Richmond, Virginia
Michael Klingner, Klingner & Associates, Quincy, Illinois

2020 ACEC RESEARCH INSTITUTE SCHOLARSHIP PROGRAM WINNERS

Mitchael Sieh, University of Nebraska–Lincoln
ACEC Scholar of the Year ($10,000)
Alisha Stidam, Lawrence Technological University
Jim Kleinfelder ACEC Scholarship ($10,000)
Jennifer Mack, University of Nebraska–Lincoln
ACEC Life/Health Trust Scholarship ($5,000)
Matthew Schomacker, Northeastern University
The Lennox Nishimura Scholarship ($5,000)
Ashlee Jean Dikoff, South Dakota School of Mines and Technology
a/e ProNet Engineering Scholarship ($5,000)
Teresa Magana, California State University, Sacramento
Professional Liability Agents Network Scholarship ($5,000)
Katelyn Gendron, Northeastern University
Small Firm Coalition Scholarship ($5,000)
David Scot Carpenter II, Auburn University
College of Fellows Scholarship ($3,000)
Amanda Kalab, Washington State University
Coalition of American Structural Engineers Scholarship ($2,500)

2020 YOUNG PROFESSIONALS OF THE YEAR

Jason D. Bock, Geotechnical Resources, Beaverton, Oregon
Emily Bernzott Emm, NTM Engineering, Dillsburg, Pennsylvania
Alexandra Gore, WSP USA, New York
Susan Jennifer Mukai, Brown and Caldwell, Honolulu
Walter Thomas Edward "Eddie" Wade, Croy Engineering, Marietta, Georgia

2020 COMMUNITY SERVICE AWARDS

Janice Gary, A. Morton Thomas and Associates, Rockville, Maryland
Karen Kahl, RK&K, Baltimore
James Kleingers, The Kleingers Group, West Chester, Ohio

2020 CHAIR EMERITUS AWARD

Marc Alper, Alper Audi, St. Louis
Stephanie Hachem, Kimley-Horn and Associates, Raleigh, North Carolina

2020 COALITIONS' DISTINGUISHED SERVICE AWARD

Ralph Guida, Guida Surveying, Irvine, California

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2020 ENGINEERING EXCELLENCE AWARD

WINNERS

The 2020 Engineering Excellence Awards Gala—

known as the "Academy Awards of the engineering industry"—showcased 203 projects from throughout the nation during the first-ever virtual Gala event broadcast on Dec. 1, 2020, which attracted more than 650 viewers.

A panel of 33 judges representing a wide spectrum of built environment disciplines selected 36 top winners: 20 Honor Awards and 16 Grand Awards, including the Grand Conceptor Award for the year's most outstanding engineering achievement.

Ross Shafer, a six-time Emmy Award-winning comedian, TV host, and nationally recognized motivational speaker, returned to host the Gala.

2020 GRAND CONCEPTOR AWARD

Copperhill Watershed Restoration

Ducktown, Tennessee

Barge Design Solutions
Nashville, Tennessee

More than a century of logging, mining, and acid production left Copper Basin contaminated with hazardous concentrated metals, including copper, iron, and zinc-forming sulfur compounds. Since mining operations ended in 1987, a massive nearly 20-year effort took place to clean up what was the largest reclamation site in the eastern United States. Restoration efforts for the 4,000-acre site included disposal of mining waste; construction of clean-water diversions and piping around mining-impacted areas; reestablishment of natural, healthy communities of aquatic insects; and construction of new contaminant-filtering wetlands. What once was the site of orange rivers nearly devoid of fish and aquatic species is now green and lush and a popular spot for whitewater rafting and fishing.

The Nashville, Tennessee-based Barge Design Solutions team, led by CEO Bob Higgins (lower right), celebrate winning the 2020 EEA Grand Conceptor Award for the year's most outstanding engineering achievement during the Virtual EEA Gala broadcast.

Millersville University Net Zero Welcome Center

Millersville, Pennsylvania

AKF Group
Philadelphia

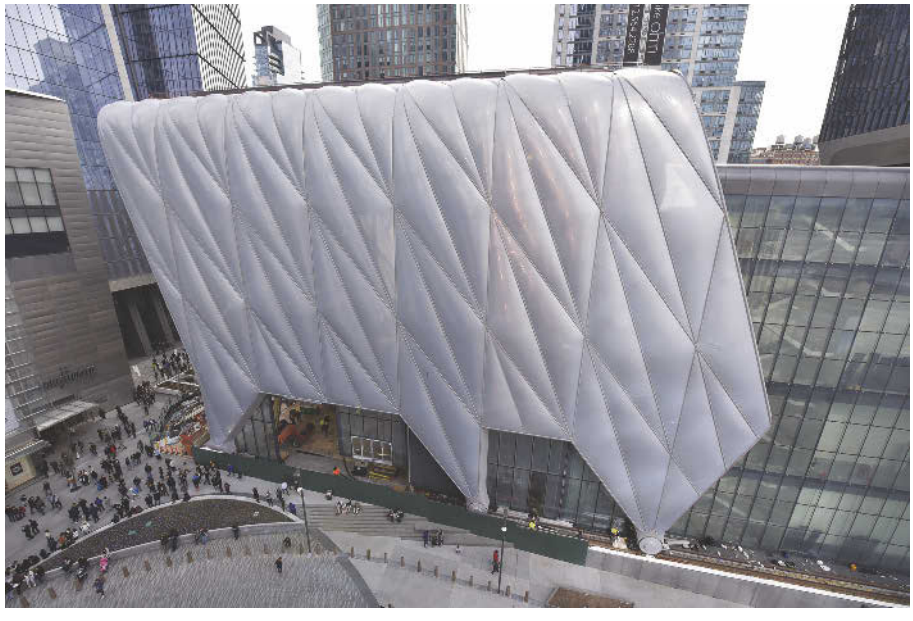
Pioneering mechanical and electrical design is helping Millersville University achieve its goal of an entire carbon-neutral campus by 2040. Its new Lombardo Welcome Center is already a sustainable net-zero facility, with a 172.6-kW photovoltaic roof array, a 20-panel ground-mounted array that can track the sun throughout the day, and a geothermal system of 20 underground wells. The building generates 210 percent of its annual power needs, with the extra used for other campus structures.

The Shed

New York

Thornton Tomasetti
New York

Imaginative engineering crafted an eye-catching 115-foot-tall performance and exhibition building that can move or retract as needed to accommodate a range of patrons, artists, scales, and complexities. When an event calls for more space, the outer shell of the flexible semi-translucent lightweight material can be deployed to cover a 17,000-square-foot area. Operable door and wall elements allow for an open-air pavilion or a fully enclosed, climate-controlled hall. Rolling out 114 feet, the Shed can be fully deployed in just five minutes at its top speed.



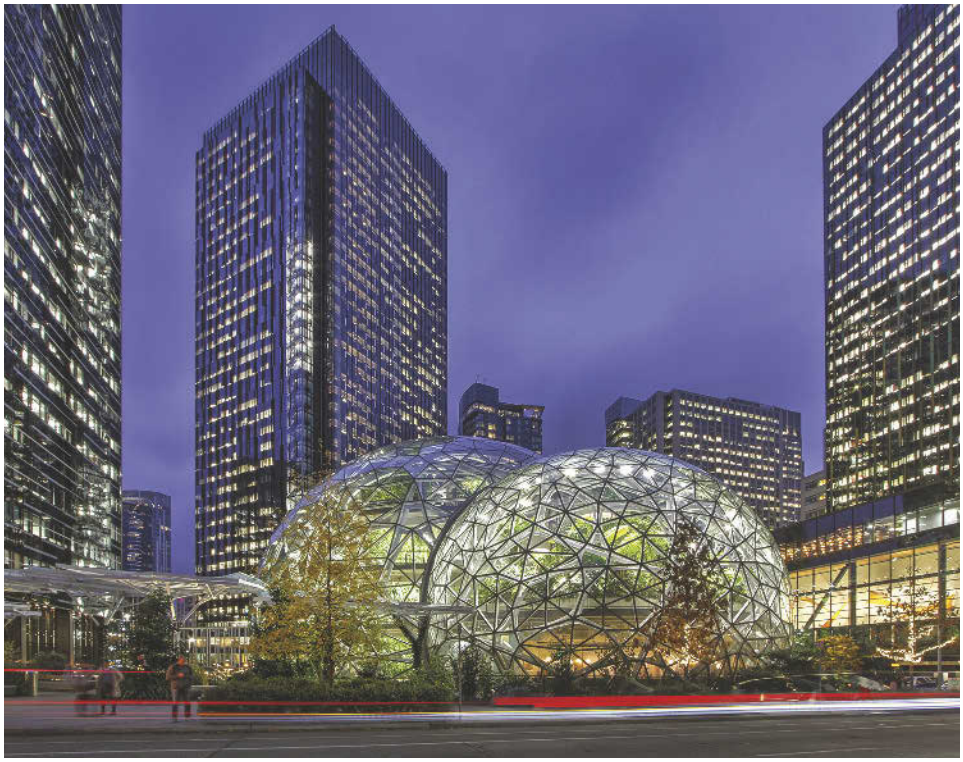
Amazon Urban Neighborhood

Seattle

Magnusson Klemencic Associates

Seattle

Rejecting the idea of a traditional corporate campus, creative structural design helped produce the Neighborhood, a breathtaking three-block urban development. It features three 38-story office towers and The Spheres, a nine-story structure with three intersecting glass-and-steel sphere conservatories designed to enhance employee creativity and collaboration. The Spheres include treehouse meeting rooms, waterfalls, a four-story living wall, and more than 40,000 exotic plants from 30 countries.



New U.S. Embassy

Pristina, Kosovo

Mason & Hanger

Glen Allen, Virginia

The new U.S. Embassy in Pristina, Kosovo, is a water-saving marvel. The embassy surrounds a large multipurpose water feature that collects stormwater and effluent from an on-site wastewater treatment plant and supplies irrigation water for landscaping and gray water for toilet flushing. The water also serves as a large heat sink for the central plant's ground-source heat pump system by allowing the building's HVAC system to extract heat in cold months and reject waste heat in warmer weather.

Manning Crevice Bridge

Riggins, Idaho

Atkins North America

Tampa, Florida

Believed to be the first of its kind in North America and only the seventh similarly designed bridge in the world, the Manning Crevice Bridge is a rare asymmetrical roadway suspension bridge featuring a single tower. The design for the 300-foot-long bridge was the best option to deal with challenging site conditions including steep topography, equipment restrictions, and swift and highly variable river flows. The new bridge provides enhanced access for local homes, resorts, and the Nez Perce National Forest.

Samuel De Champlain Bridge

Montreal

T.Y. Lin International Canada

Falmouth, Maine

Serving as a major gateway into the city of Montreal, the new 2.1-mile Samuel De Champlain Bridge spans the St. Lawrence River between Île-des-Soeurs and the South Shore and is the cornerstone of the New Champlain Bridge Corridor Project, one of North America's largest infrastructure initiatives. The landmark asymmetric cable-stayed structure features a single 558-foot-tall concrete tower and stay cables in an aesthetic harp arrangement. It supports approximately 50 million crossings a year, resulting in an international trade value of $20 billion.

Virginia Initiative Plant Nutrient Reduction

Norfolk, Virginia

HDR

Newport News, Virginia

A pioneering $161 million upgrade to a wastewater treatment facility redoubles the district's efforts to restore the health of the Chesapeake Bay. A versatile bioreactor integrated with the plant's existing nutrient removal processes helps meet increasingly stringent discharge quality mandates, while increasing peak flow capacity by 50 percent. Ten buildings, more than 90 miles of foundation piles, and a 108-inch-diameter pipeline were installed to support structures and utilities over a closed landfill.

Satellite & GPS Measurement to Support California's Groundwater Management Act

Statewide, California

Towill, Inc.

Concord, California

As part of a three-year project to measure ground subsidence statewide and identify potential risks to infrastructure, the project team looked to the sky—satellite-based Interferometric Synthetic Aperture Radar technology. Utilizing two satellites launched in opposite orbits, the team isolated not only any deformation from subsidence but also vertical change across the entire state. Satellite readings now help more than 260 local groundwater agencies protect infrastructure from costly subsidence-related damage.

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Trap Rock Water Treatment Facility

Leesburg, Virginia

CDM Smith

Fairfax, Virginia

The innovative treatment plant helped a major utility meet water treatment requirements, potential future regulations, and emerging contaminant risks. This greenfield facility treats up to 20 million gallons per day and incorporates two-step ozone, two-stage mixing, flocculation, sedimentation, biological filtration, chlorine disinfection, and ultraviolet inactivation systems. A new solar photovoltaic system will generate up to 40,000 kW of clean renewable energy annually.

◀

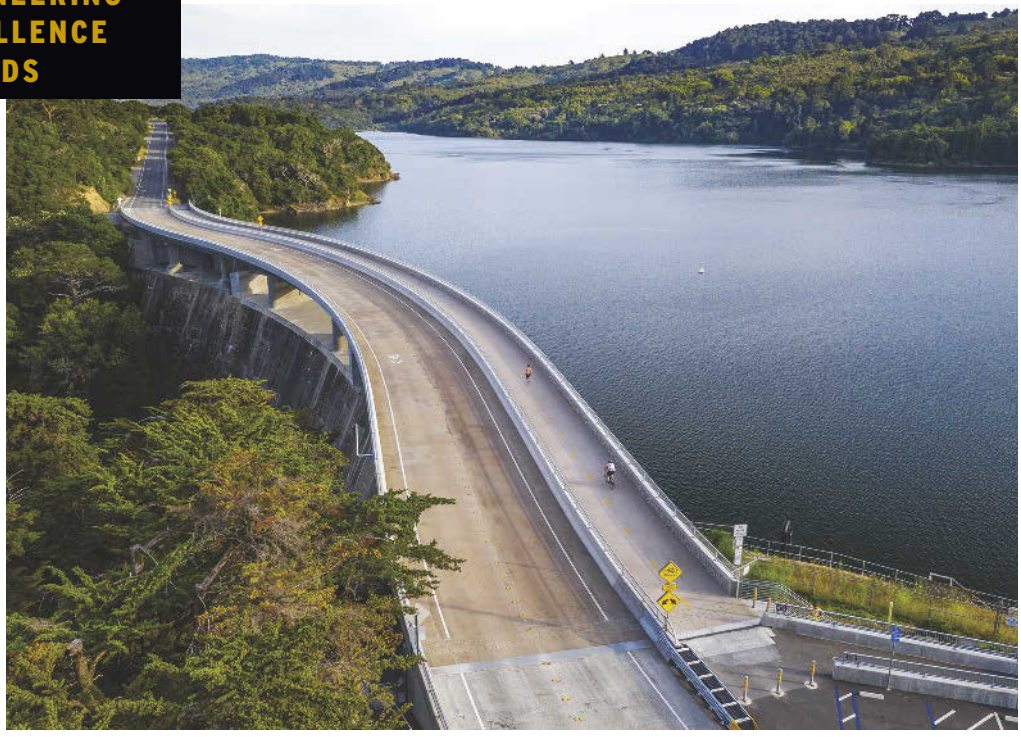
I-90 Hyak to Keechelus Dam Phase 1C

Snoqualmie Pass, Washington

Jacobs Engineering Group

Bellevue, Washington

New side-by-side and elevated avalanche bridges can accommodate a 100-year snow slide event, while minimizing road closures and increasing vehicle capacity along one of the most scenic mountain ranges in the United States. The twin 1,200-foot-long avalanche bridges incorporate new standards for Cascade Mountains snow designs. Located along a hazardous stretch of I-90, the new bridges are designed to provide a freeway safe from rockfalls and avalanches, with increased capacity and improved environmental connectivity.



Lower Crystal Springs Dam Bridge Replacement

San Mateo County, California

AECOM and WSP
Oakland, California

The complete reconfiguration of a 1920s-era bridge included raising the structure's fortification wall by about 7 feet, along with work on its approaches and the adjacent Vista Point overlook. Mechanical seismic isolation bearings were used to isolate the deck structure from the supporting bents and pier walls that are anchored to the dam crest. Along with providing a safer route across the reservoir, the bridge provides trail users with a beautiful view of the water and woods in the 23,000-acre watershed.

Virginia Avenue Tunnel Reconstruction

Washington, D.C.

Clark/Parsons (Joint Venture)
Washington, D.C.

A common rail traffic chokepoint has been eliminated for a major rail corridor along the Eastern Seaboard. The century-old Virginia Avenue Tunnel could only accommodate one single-stack train at a time, which commonly caused major rail backups. The state-of-the-art two-tunnel replacement can accommodate double-stack intermodal trains. Cross streets spanning the 11 city blocks above the tunnel construction were fully rebuilt to include new shared-use paths, dedicated bike lanes, and significantly expanded green space.

San Gabriel Trench Grade Separation

San Gabriel, California

Moffatt & Nichol
Costa Mesa, California

Four congested at-grade rail crossings were eliminated through an innovative design, which lowered a 1.4-mile section of the Union Pacific Railroad track into a 30-foot-deep concrete trench that was then topped with new pedestrian and vehicle bridges. Eliminating a long-standing safety hazard, the new trench also reduces emissions from nearly 90,000 idling motorists per day and saved more than $100 million in excavation and associated construction costs.

I-696 Innovative Design

Macomb County, Michigan

Tetra Tech
Brighton, Michigan

Accelerated pavement deterioration on I-696 forced the Michigan Department of Transportation (MDOT) to fast-track immediate repairs to avoid a traffic nightmare with the upcoming major I-75 construction. The project team used advanced 3D modeling to create electronic documents that provided accurate depictions of the pavement surface for contractors and surveyors. It played a key role in the project's success and was a first for MDOT, which included an electronic deliverable as part of the contract.

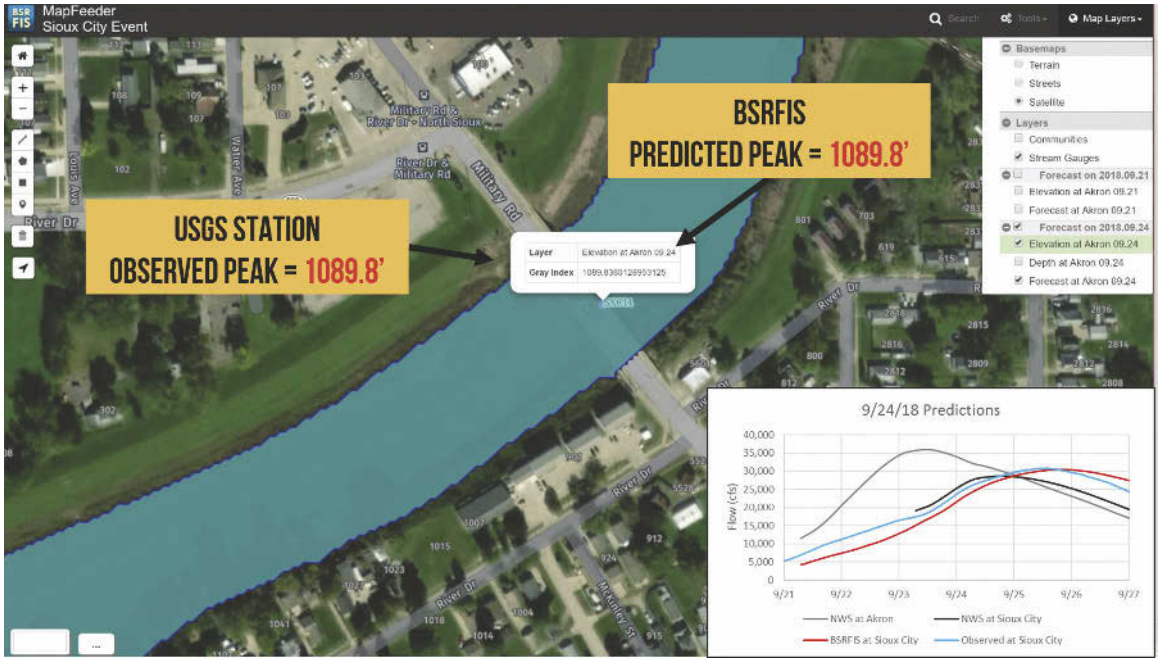
Hudson Yards Redevelopment

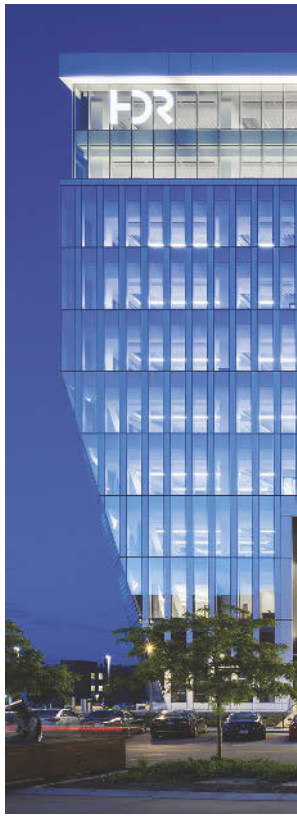
New York

Langan
Parsippany, New Jersey

Innovative foundation design will support a massive platform for a proposed development including 12 mixed-use 50-to-70-story towers above congested rail tracks and utilities. The project shows the viability of constructing over existing rail lines to help transform neighborhoods that are often economically depressed because of the rail facility.

HONORAWARDS





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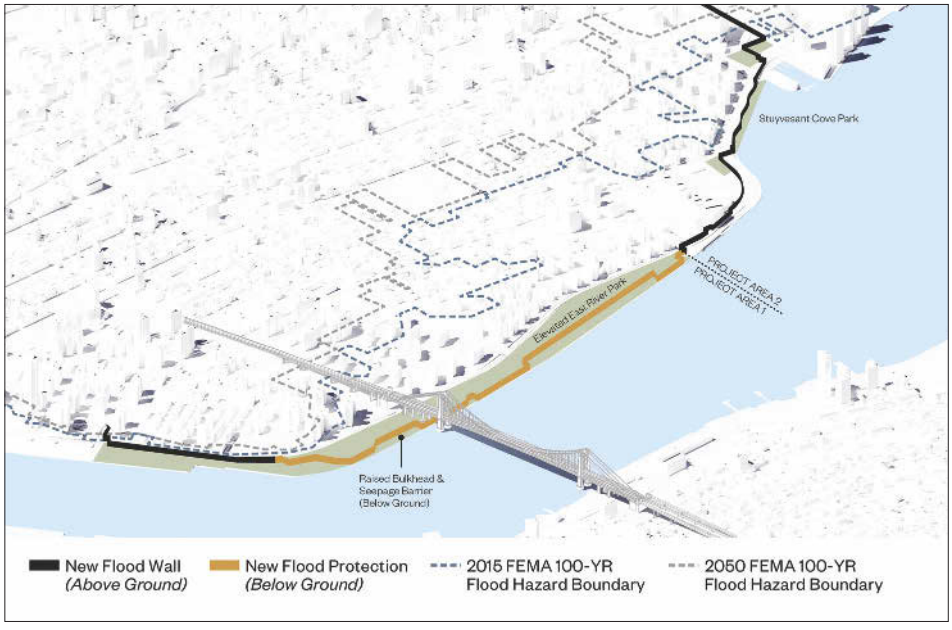
Big Sioux River Flood Information System

Eastern South Dakota

RESPEC

Rapid City, South Dakota

In response to repeated flooding that crippled several Big Sioux River communities in recent years, a state-of-the-art flood-information system now helps decision-makers, emergency managers, and weather service providers effectively plan appropriate flood-mitigation responses. The system is a one-stop web platform for real-time stream conditions, flood forecasts, visualizations, and inundation maps. Detailed computer models can simulate weather and watershed conditions across the entire basin from two-to-500-year events.



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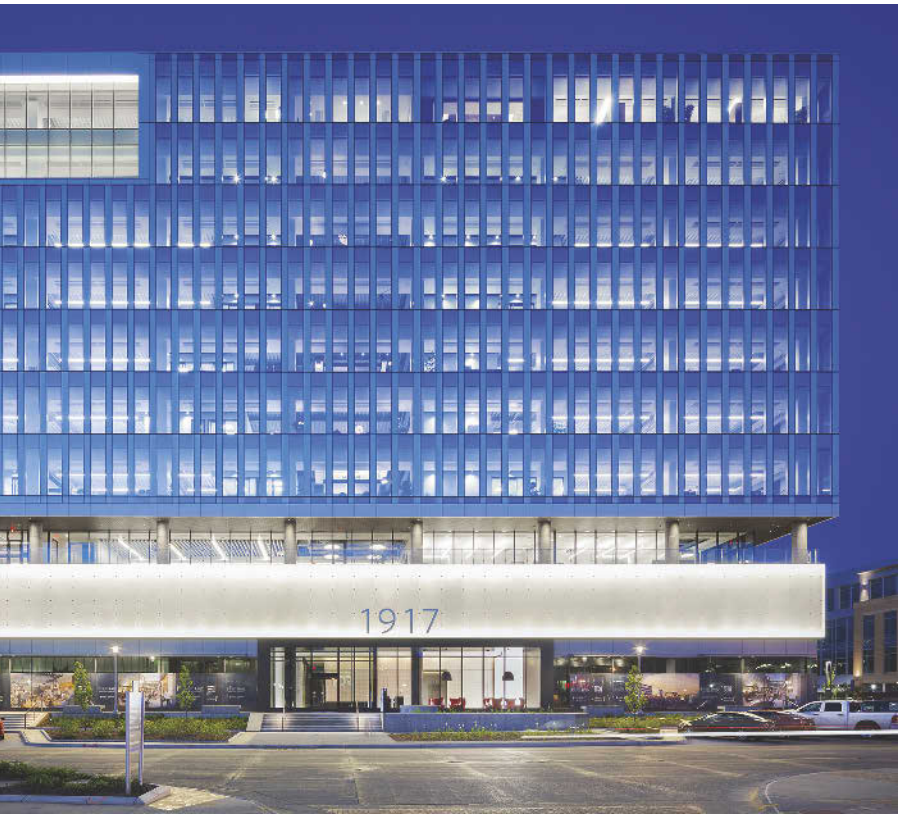
East Side Coastal Resiliency Project Environmental Impact Statement

New York

Hazen and Sawyer / AKRF JV

New York

The team helped lead development of a $1.45 billion project aimed at improving New York City's ability to withstand and recover from a major storm. The project targets a 2.4-mile stretch along Manhattan's East Side. It addresses at-risk critical structures such as major pump and electrical stations and more than 1,500 buildings. An integrated flood-protection system features floodwalls and floodgates to benefit more than 100,000 residents and 250,000 workers.



HDR Headquarters Multi-Use Office Building

Omaha, Nebraska

HDR

Omaha, Nebraska

Dynamic engineering is on display at the new headquarters for one of the world's leading engineering firms. The 10-story, 240,000-square-foot structure features an imaginative facade with its form sliced at the corners to maximize space on upper floors. The building also contains a highly integrated system of temperature and lighting controls to reduce energy consumption. An underground chamber detention system captures and treats stormwater runoff prior to entering the city's collection system. A high-solar-reflectance roof in the parking garage combats the heat island effect.

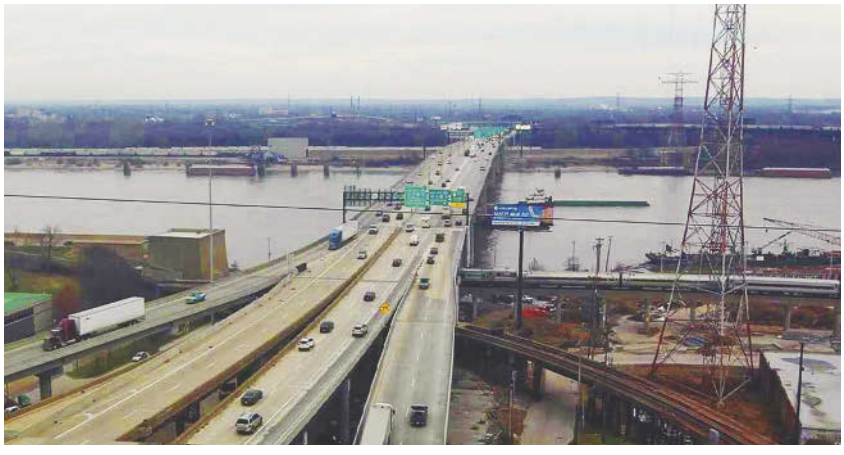
Hale Centre Theatre

Sandy, Utah

VBFA

Salt Lake City

At this 900-seat theater-in-the-round venue, a first-of-its-kind displacement ventilation system helps assure indoor comfort. Large air handlers are enclosed in heavy concrete and located on the roof above the lobby rather than in the theater to create a noise-free theater environment. Other noise-reduction features include piping and ducts routed around architectural features, with especially loud equipment contained in custom sound enclosures.



Poplar Street Bridge Widening and Rehabilitation

St. Louis

HDR

St. Louis

Nicknamed St. Louis' "big slide," this project involved using specialized equipment to lift a 2,165-foot-long, 20.4-million-pound eastbound bridge and move it 9 feet south along its support pier—setting a record for the longest existing bridge and heaviest overall bridge relocation in the United States. Completed as part of a major interchange overhaul, the project solved a host of design and maintenance challenges while improving safety and vehicle capacity.

Columbia University's Manhattanville Campus

New York

Mueser Rutledge Consulting Engineers
New York

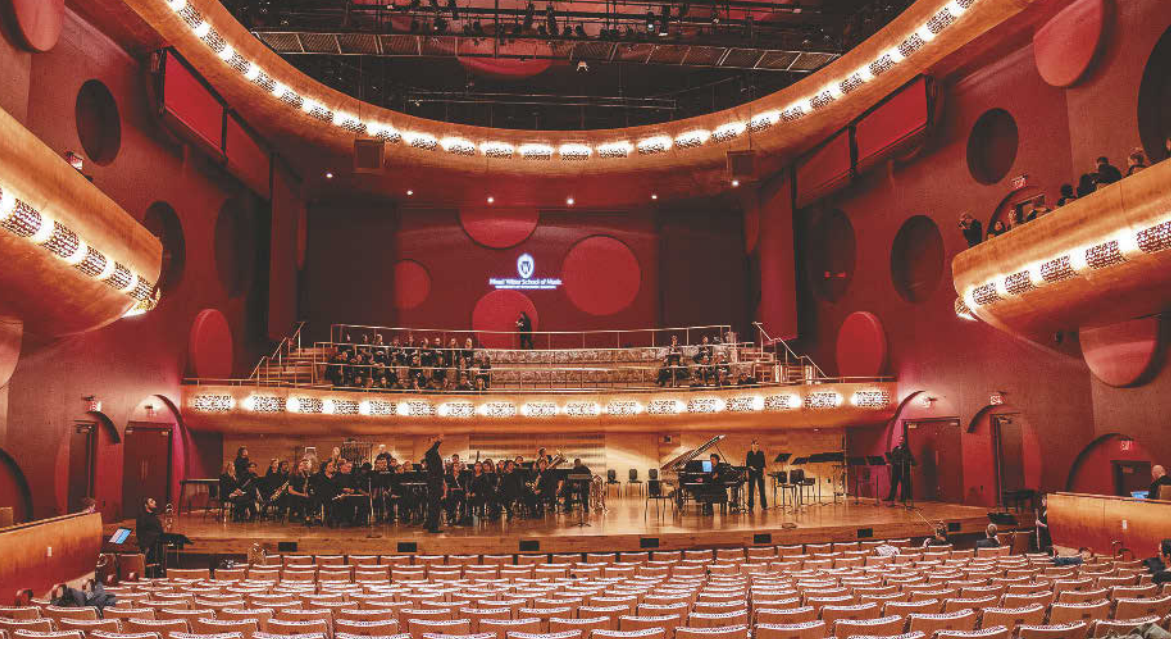
A new 17-acre campus featuring mid-rise academic and research buildings required interconnected below-grade space and deep excavation below the groundwater table for multiple basement levels, a central energy plant, and bridge structures to support local streets. Multiple foundation types in a phased construction approach included one of the city's first applications of top-down construction, which allowed structures to rise during the excavation below.

Marc Basnight Bridge

Dare County, North Carolina

HDR
Raleigh, North Carolina

A new 2.8-mile bridge spans one of the most dangerous channels on the Atlantic Coast, replacing a 1960s-era bridge that required near-continuous repair, and provides safer access for thousands of visitors to the Outer Banks' beaches. The project team created simulations of more than 100,000 storms dating back 160 years to develop a foundation and structural support system capable of withstanding Oregon Inlet's powerful, ever-shifting currents for the next century.



University of Wisconsin–Madison Hamel Music Center

Madison, Wisconsin

raSmith

Brookfield, Wisconsin

Inspired engineering created an elegant new performance center where concert, recital, and rehearsal halls are three separate buildings within one large overall structure. Each hall features state-of-the art acoustics and sound isolation, not only from nearby traffic and lobby noise, but from music emanating from adjacent halls. The concert hall's interior walls are lined with an acoustical coffer system. Along with providing superior sound treatment, the system blends beautifully with the rest of the hall's aesthetics.

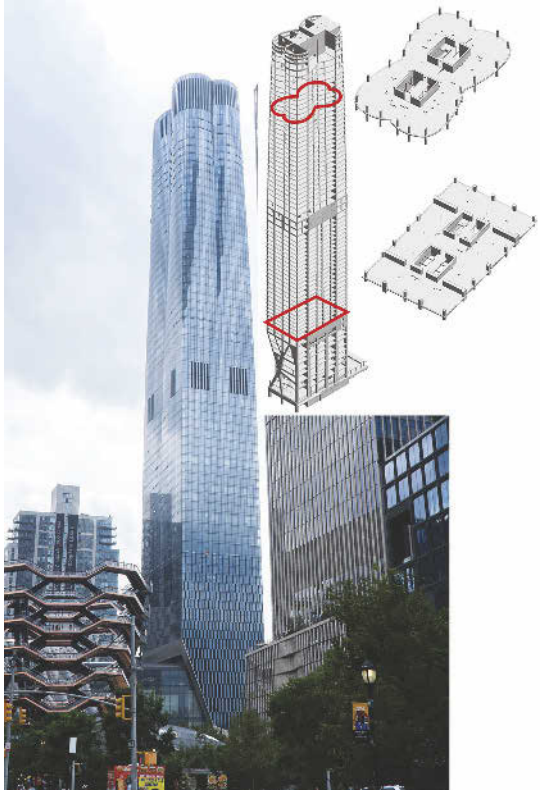
SW Brooklyn Marine Transfer Station

Brooklyn, New York

Greeley and Hansen

New York

The new state-of-the-art solid-waste facility features innovative processing that efficiently containerizes municipal solid waste for transfer to landfills via barges. Maximizing efficiency and safety, the 85,000-square-foot facility has a top-floor tipping level for truck unloading and a loading level for compressing and loading solid waste through open floor slots. Solid waste drops into 20-by-8-foot open-top intermodal shipping containers on the bottom-floor pier level, reducing tractor-trailer traffic and its carbon footprint while enhancing environmental safety.



15 Hudson Yards

New York

WSP USA

New York

Constructed above the new No. 7 Subway extension line and a recently built Amtrak tunnel, the eye-catching, super-slender 918-foot-tall condominium skyscraper is supported by groundbreaking structural design. To sculpt the building's curved massing, the project team used systems of surreptitious stepping and sloping columns with structural transfers dispersed throughout the height of the tower. An innovative structural combination including a double-story tuned slosh damper helps keep the tower stable in high winds.

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Aquifer Storage and Recovery Program Services

Hastings, Nebraska

HDR

Omaha, Nebraska

To provide the city with a long-term, reliable potable water supply, the project team developed a five-prong solution that involves dual pumping, focused treatment, irrigation reuse and management, blending and storage, and aquifer storage and recovery. The plan addresses increasing levels of nitrate and uranium contamination, as well as options for treatment and disposal. This approach substantially reduces future capital investments and operation costs while providing long-term protection for the aquifer.

▲

Beaver Creek Fish Passage

La Grande, Oregon

Anderson Perry & Associates

La Grande, Oregon

A creative fish-passage system allows migratory fish to overcome a 30-foot-high dam and reach an upstream watershed. Challenged by a remote, high-mountain location, the project team's design solution included 59 precast concrete vortex weirs placed along 400 feet of the dam spillway. Each 27,000-pound weir allows fish to ascend the steep grade from the natural channel below to the reservoir above, then on to high mountain waters. Success was realized the next summer, when steelhead nests appeared above the dam for the first time in a century.

Beehive Bridge

New Britain, Connecticut

Fuss & O'Neill

Manchester, Connecticut

Inspired by the city's motto, "Industry fills the hive and enjoys the honey," the eye-catching Beehive Bridge sports curved panels in shades of translucent orange to resemble a giant honeycomb and a bumblebee's flight. Sunlight through bridge panels creates changing patterns on the streetscape while glowing LED lighting showcases the structure at night. Each bridge corner is anchored by an 11-foot-tall aluminum bee.

Reconstruction of Harlem River Drive Over 127th Street

New York

Hardesty & Hanover

New York

The safety of nearly 100,000 daily motorists on Harlem River Drive has been enhanced by replacing the existing steel structure over East 127th Street with two parallel prestressed concrete girder viaducts. Adding a left lane exit for southbound traffic and flattening the bridge's vertical curve improves sight distances for stopping and helps correct long-standing and dangerous conditions that contributed to high accident rates. Dedicated entrance and exit roads beneath the bridges allow for future park development along the waterfront.

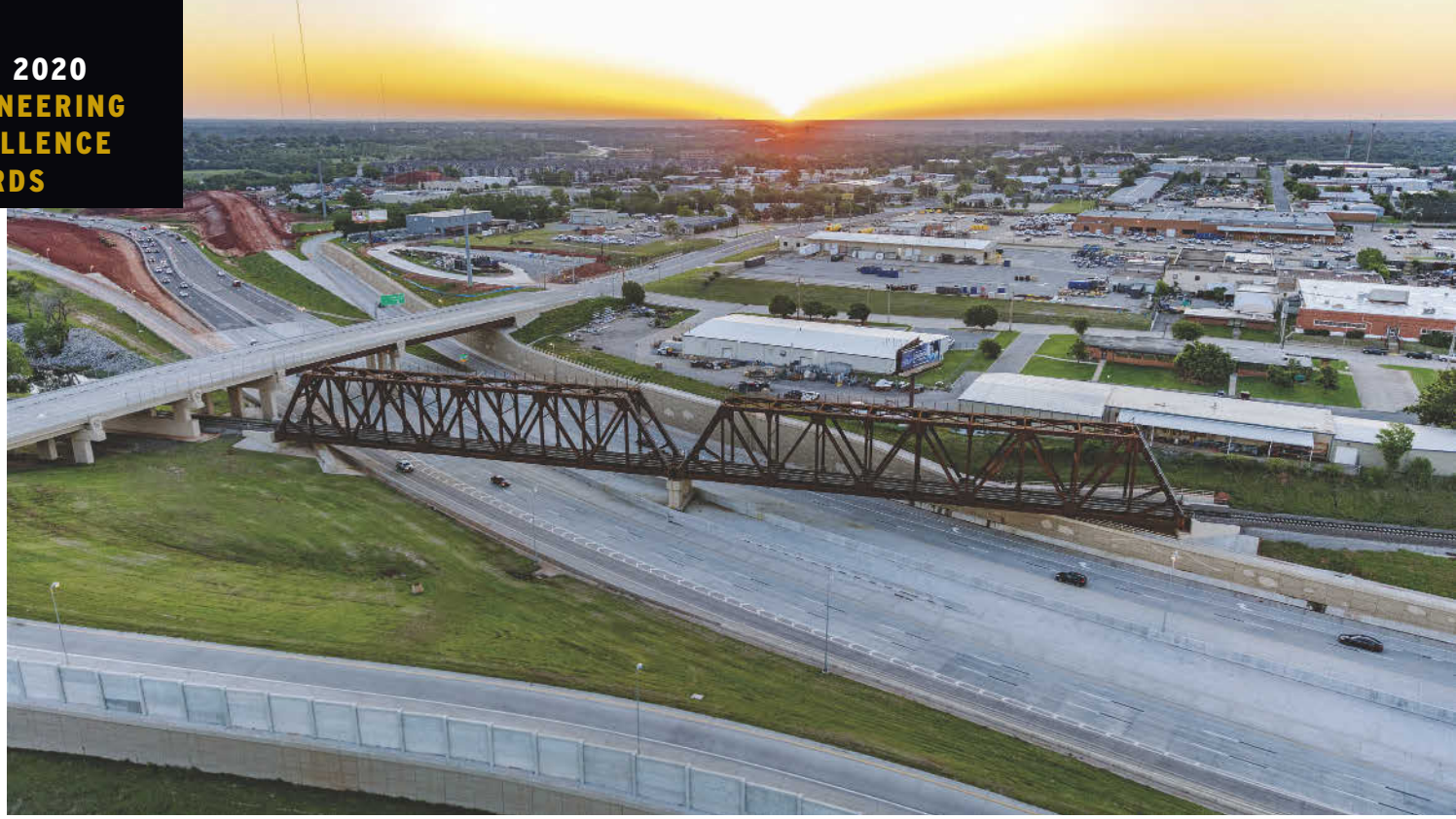
MAASTO Truck Parking Information Management System

Statewide, Kansas

HNTB

Kansas City, Missouri

A first-of-its-kind, multistate regional Truck Parking Information Management System helps long-haul truck drivers find safe locations to park. The project team developed an elaborate system that uses detection technology to identify available spots at state-operated rest stops and parking facilities. Real-time information is then relayed to truck drivers via roadside message signs, in-cab systems, and mobile apps. The new system already is deployed at 18 truck parking sites along I-70 from Topeka, Kansas, to the Colorado state line.



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I-235 Broadway Widening at 50th Street & BNSF Railroad

Oklahoma City

Benham

Tulsa, Oklahoma

Accelerated bridge construction methods helped create a major new 50th Street crossing and nearby BNSF rail bridge while minimizing disruption to commuter rail traffic. Installation of the highway bridge was completed in a single three-day weekend, while the rail bridge took less than a day. The expedited construction process for the $81 million project significantly improved safety for motorists, who did not have to contend with months of lane closures.

▲

Bayou Sara Swing Bridge

Mobile County, Alabama

HDR

Newark, New Jersey

The new swing bridge replaces its outdated 1928-era, single-track version. The swing span is metalized to combat common high storm surges of brackish water. It also is hydraulically driven with enclosed motors and features a center-pivot service tower to keep most equipment elevated above flood levels. The bridge was installed within a 15-hour outage window to keep rail operations on schedule.

Kaneohe-Kailua Wastewater Facilities Project

Honolulu

Wilson Okamoto Corp.
Honolulu

Two major treatment facilities were connected by a new 3-mile-long, 10-foot-diameter, fiberglass-lined sewer tunnel, making it the state's longest conveyance pipeline. In addition to moving wastewater by gravity, the pipeline can store up to 9 million gallons of wastewater during storms, which prevents accidental discharges of untreated sewage into the environment.

ABC Weekend Superstructure Replacement of EB Wilson Blvd. Over Rte. 50

Falls Church, Virginia

WSP USA/Martins Construction
Herndon, Virginia

The project team applied accelerated bridge construction techniques to expedite the replacement of the aging superstructure in Seven Corners, one of Northern Virginia's busiest and most complicated intersections. Rather than staging monthslong lane closures that would have crippled traffic in the area, the replacement superstructure was constructed adjacent to the existing bridge. Over a 54-hour weekend closure, the old bridge was demolished and the new section put in place well in advance of the start of the following Monday morning rush hour.

Rainier Square Tower Shoring Design

Seattle

Hart Crowser
Seattle

Creative structural modeling helped transform an underused city block into a fully developable site for Seattle's second-tallest building. The new building and its seven-level garage were to be built adjacent to the 40-year-old Rainier Tower. A quarter of the site's soil had to be replaced with a temporary shoring system as excavation extended 50 feet deeper than the nearby tower's shallow foundation to preserve stability and structural integrity. The old building remained safe and fully occupied with no perceptible lean or settlement.

NATIONAL RECOGNITION AWARD WINNERS

FIRM NAME	PROJECT NAME
ACEC ALABAMA	
Building & Earth Sciences, Inc.	Project Northpoint – Geotechnical Engineering
CDG Engineers & Associates	Rex Lumber Troy Sawmill
Sain Associates, Inc.	I-59/20 CBD Bridge Replacement
ACEC ALASKA	
HDR, Inc. | R&M Consultants, Inc.	Water Street Trestle #2
ACEC ARIZONA	
HDR, Inc.	Clearwell Reservoir
Wood Environment & Infrastructure Solutions	Granite Creek Dam Valve Rehabilitation
ACEC CALIFORNIA	
Arup	Google Spruce Goose
Degenkolb	Sutter Health CPMC Van Ness and Geary Campus
HDR, Inc.	San Elijo Double Track
Infrastructure Engineering Corp.	Upas Street Pipeline Replacement Project
Kimley-Horn and Associates, Inc.	I-5/Genesee Avenue Interchange Project
Kimley-Horn and Associates, Inc.	North Fremont Street Transit, Bike, Ped Improvements
Shannon & Wilson, Inc.	Academy Museum of Motion Pictures
T.Y. Lin International	North Atwater Non-Motorized Multimodal Bridge
ACEC COLORADO	
Atkins North America, Inc.	I-25 Ilex Design-Build
HDR, Inc.	Betasso Water Treatment Facility
Merrick & Co.	South Platte River Run Park
Muller Engineering Co.	Colorado Horizontal Collector Well
ACEC-CT	
ATANE and AECOM	Metro-North Railroad Bridge Over Atlantic Street
H.W. Lochner, Inc.	I-84/Route 2 Bridge Bundle Design-Build
WSP USA	Superstructure Replacement of US Route 1 Over I-95
ACEC-FL	
EXP U.S. Services, Inc.	UTC Center for Intelligent Buildings
Hardesty & Hanover	Rehabilitation of the Main Street Bridge
HNTB	Guidance for ACES Impacts
Kimley-Horn and Associates, Inc.	Treating Widespread Emerging PFAS Contaminants
ACEC GEORGIA	
Atkins North America, Inc.	Renew Atlanta TSPLOST
Kimley-Horn and Associates, Inc.	Super Bowl LIII Transportation Planning Playbook
Michael Baker International	Courtland Street Bridge Replacement
Pond & Co.	Samsung Electronics, Complex 3 Expansion
RS&H, Inc.	Hardscrabble Green Loop Complete Street
ACEC OF IDAHO	
HDR, Inc.	Cloverdale Road & I-84 Overpass Rebuild
McMillen Jacobs Associates	Stibnite Gold Project Fish Passage Tunnel
ACEC ILLINOIS	
AECOM	41st Street Steel Arch Pedestrian Bridge
Deuchler Engineering Corp.	Fox Metro WRD CSO LTCP Phase 2 Improvements
EXP U.S. Services, Inc.	CTA 95th Street Station Expansion and Renovation
Strand Associates, Inc.	IDOT IL 47 Study Relieves Woodstock Congestion
T.Y. Lin International	Joliet Gateway Center
TERRA Engineering, Ltd.	MPEA McCormick Square Campus Expansion
ACEC INDIANA	
American Structurepoint, Inc.	Noblesville WWTP Phosphorus Removal & Aeration
CHA Consulting, Inc.	Cass Adams CSO Relief Sewer
Engineering Resources, Inc.	Riverfront Fort Wayne, Promenade Park
Wessler Engineering	Stormwater and Deicing Capacity Projects

The CTA 95th Street Station Expansion and Renovation, located in Chicago, was designed by EXP U.S. Services, and is a 2020 National Recognition Award winner.

FIRM NAME	PROJECT NAME
ACEC/IOWA	
FOX Engineering Associates, Inc.	Ames Water Treatment Plant
HDR, Inc.	2019 Flood Response and Recovery Effort
ACEC KANSAS	
Burns & McDonnell	Chetolah Creek Wastewater Resource Recovery Project
TranSystems Corp.	I-235 and Kellogg Red Project
Walter P Moore	Lakehurst Neighborhood Street Improvements
ACEC-KY	
Burgess & Niple, Inc.	Southwestern Parkway Combined Sewer Overflow Basin
DLZ Kentucky, Inc.	Kennedy Mill Bridge, KY 152 Over Herrington Lake
EA Partners, PLC	Innovation and Safety
HMB Professional Engineers, Inc.	KY 30 Reconstruction
Stantec	Lexmark Rainwater Harvesting System
Strand Associates, Inc.	South Fourth Street Streetscape Improvements
ACEC OF LOUISIANA	
C. H. Fenstermaker & Associates, LLC	SASOL USA Mega Project – Heavy Haul Road
C. H. Fenstermaker & Associates, LLC	U.S. 90 (I-49 South) Design-Build Project

FIRM NAME	PROJECT NAME
Coastal Engineering Consultants, Inc. and GeoEngineers, Inc.	Caillou Lake Headlands (Whiskey Island) Restoration
Digital Engineering and Imaging, Inc.	Bogue Falaya Shoreline Protection and Paddlers Launch
Forte and Tablada, Inc.	Sunshine Bridge Emergency Repair
T. Baker Smith, LLC	Pump Station Monitoring System
TRC Engineers, Inc.	I-49 North (I-220 to MLK, Jr. Drive) Segment K
ACEC OF MAINE	
CHA Consulting, Inc.	Whittier Field Athletic Complex Renovation
HNTB Corp.	Bar Harbor Route 3 Highway Rehabilitation
ACEC/MD	
Greenman-Pedersen, Inc.	MD 355 over the Monocacy River Emergency Repairs
McCormick Taylor, Inc.	Piney Grove to Wattsville 69 kV Transmission Line
RK&K	I-895 Patapsco Flats Superstructure Replacement
Whitney Bailey Cox & Magnani, LLC	Slope Stabilization at Building 75, NRL CBD
WSP USA	Patuxent Water Filtration Plant Phase II Expansion
WSP USA	Fort McHenry Tunnel Lighting Replacements
ACEC/MA	
Arup	Northeastern University ISEC Pedestrian Bridge
Jacobs	Encore Boston Harbor Resort
Jacobs	I-95/I-93 Transportation Improvements Project
Nitsch Engineering	Children's Wharf, Martin's Park
Simpson Gumpertz & Heger, Inc.	Emerson College Little Building
STV, Inc.	Fanny Appleton Pedestrian Bridge Design-Build
WSP USA	Joan & Edgar Booth Theatre Complex
ACEC/MW	
AMT	The Fields at RFK Campus
Arup	Cincinnati Union Terminal
Arup	The REACH at the Kennedy Center
HNTB Corp.	Transform I-66: Inside the Beltway
Parsons Transportation Group, Inc.	Reconstruction of Monroe Street Bridge NE Over CSX
Sheladia Associates, Inc.	World Bank Country Office at Kabul, Afghanistan
ACEC/MN	
AECOM Technical Services, Inc.	Smith Avenue Bridge Redecking Project
Braun Intertec Corp.	Northern Stacks Brownfield Redevelopment
HDR, Inc.	C Line Bus Rapid Transit
KLJ	Trunk Highway 149 Transportation Improvements
Michael Baker International, LLC	Winona Bridge Rehabilitation and Reconstruction
Short Elliott Hendrickson, Inc.	Cypress Drive
TKDA	Pioneer Hall Expansion and Renovation

NATIONAL RECOGNITION AWARD WINNERS

FIRM NAME	PROJECT NAME
ACEC/MS	
Waggoner/IMS, II LLC	Hinds Parkway, Segment 2 – Davis Road to Parks Road
ACEC/MISSOURI	
Olsson	Joplin Disaster Recovery Infrastructure Projects
TranSystems Corp.	South Liberty Project, Phase II
Walter P Moore	Allianz Field
ACEC-MONTANA	
KLJ	Glacier Rail Park
Utility Mapping Services	Utility Permitting and Data Repository
ACEC NEBRASKA	
HDR, Inc.	Papillion Creek WRRF Emergency Flood Services
ACEC OF NEW JERSEY	
HNTB Corp.	Traffic Permitting and Lane Closure System
Michael Baker International	Route 280/21 Interchange Improvements
Remington & Vernick Engineers	Aeration System Upgrade & Energy Efficiency Improv
T&M Associates	Iowa Court & South Green Living Shoreline Project
T&M Associates	Seawall Reconstruction
ACEC NEW MEXICO	
AECOM Technical Services, Inc.	I-25/Rio Bravo Interchange
ACEC NEW YORK	
AECOM	Nassau Expressway – D/B Operational & Resiliency
AKF Group, LLC	Manuscripts & Archives Historical Restoration
Arup	Starbucks Reserve – New York Roastery
Capital Transit Partners (STV/AECOM/Morrison Hershfield/McMillen Jacobs Associates Joint Venture)	Confederation Line LRT Stage 1
CHA Consulting, Inc.	Lake Champlain PV-20 Submarine Cable Replacement
DeSimone Consulting Engineers	One Thousand Museum
Dewberry	LIRR Wyandanch and Pinelawn Stations
Gannett Fleming, Inc.	LIRR Enhanced Station Initiative
H2M Architects + Engineers	Replacement of Birch Street Elevated Storage Tank
Hatch, Ltd	Port Master Plan 2050
HDR, Inc.	Navy Grumman Plume Study
Jacobs	Onondaga County's Green Stormwater Infrastructure
Jaros, Baum & Bolles	Ford Foundation Center for Social Justice
Jaros, Baum & Bolles	The Shed
KS Engineers, PC	Design-Build: The Buckram Road Bridge Replacement
Langan Engineering & Environmental Services	TWA Flight Center Hotel
Loring Consulting Engineers, Inc.	Energy Efficiency Technical Services for City-Owned Buildings
Modjeski and Masters	Portageville Bridge Replacement
Stantec, Inc.	Albany Skyway
WSP USA	Kosciuszko Bridge, Phase 2
ACEC/NC	
HNTB North Carolina, PC	CLT Elevated Roadway and Terminal Curb Front

The Cincinnati Union Terminal was designed by Arup, and is a 2020 National Recognition Award winner.

FIRM NAME	PROJECT NAME
RS&H, Inc.	I-40/440 Pavement Reconstruction Design-Build
RS&H, Inc.	Surf City/Topsail Island Bridge Replacement
W.K. Dickson & Co., Inc.	Boone USDA Raw Water Project
ACEC NORTH DAKOTA	
Barr Engineering Co.	Badlands Landslide Repair Along Highway 73
KLJ	Pembina-Emerson Port of Entry
KLJ	U.S. Highway 85 Environmental Impact Statement
ACEC OHIO	
Environmental Design Group, LLC	Aqueduct Street Green Improvements
Gannett Fleming, Inc.	Buckeye Lake Dam Improvement Project
MS Consultants, Inc.	Southern Ohio Veterans Memorial Highway
PEDCO E&A Services, Inc.	Carl H. Lindner College of Business
The Mannik & Smith Group, Inc.	ProMedica Toledo Hospital Generations of Care
ACEC OKLAHOMA	
Craig and Keithline Consulting Engineers, Inc.	Gilcrease Expressway North Mitigation Project
Garver	Del City Wastewater Treatment Plant Improvements
ACEC OREGON	
HDR, Inc.	Earthquake Ready Burnside Bridge Feasibility Study
ACEC/PA	
American Bridge Co./WSP USA	South 10th Street Bridge Main Cable Dehumidification
Century Engineering, Inc.	Bellefonte Borough Authority Wastewater Treatment
Gannett Fleming, Inc.	I-95: Sections D10 and D20
Gannett Fleming, Inc.	Pump Station 6
Gannett Fleming, Inc.	Pikes Creek Dam Rehabilitation
KCI Technologies, Inc.	Catch It Early GIS Web Application
Michael Baker International	Navy Gateway Inns & Suites
Skelly and Loy, Inc.	I-83 North York Widening Environmental Assessment
Skelly and Loy, Inc.	South Valley Parkway Bat Monitoring & Habitat Mitigation
Whitman, Requardt and Associates, LLP	SR 0208 Pulaski Bridge over Deer Creek
ACEC-SC	
HDR, Inc.	Carolina Crossroad Corridor Improvement EIS
ACEC TENNESSEE	
Allen & Hoshall	Methodist University Hospital Shorb Tower Project
CDM Smith, Inc.	M.C. Stiles WWTP PAA Effluent Disinfection
Kimley-Horn and Associates, Inc.	Hermitage Flats
L. I. Smith & Associates, Inc.	BNA Terminal Planning
Terracon Consultants, Inc.	Lipscomb University George Shinn Event Center
ACEC TEXAS	
BGE, Inc.	An In-Depth Look Into Cambria Cave
H2O Terra, LLC	Secondary Membrane Treatment of RO Concentrate
HDR, Inc.	Austin in Motion Corridor Mobility Study
Huitt-Zollars, Inc.	Water Quality Laboratory
Lockwood, Andrews & Newnam, Inc.	Exploration Green Detention Facility, Phase 1
Parkhill, Smith & Cooper, Inc.	El Paso Water Canal Tunnel
Parsons/TranSystems Joint Venture	TEXRail Commuter Rail Project
RPS Group	Innovating Wastewater Management
Walter P Moore	Almeda Road Paving and Drainage Improvements
Walter P Moore	Hilton Overhead Walkway
ACEC VIRGINIA	
Dewberry	Raw Water Transmission Main (RWTM), Loudoun Water
Kimley-Horn and Associates, Inc.	Interstate 81 Corridor Improvement Plan
ACEC WASHINGTON	
Carollo Engineers, Inc.	Clean Water Facility
HDR, Inc.	NE 45th Street East Approach Seismic Retrofit
HDR, Inc./Otak/KPFF	Fish Passageway Program

ACEC thanks the 2020 Engineering Excellence Awards (EEA) judges and EEA Committee members for their time and dedication to this year's competition.

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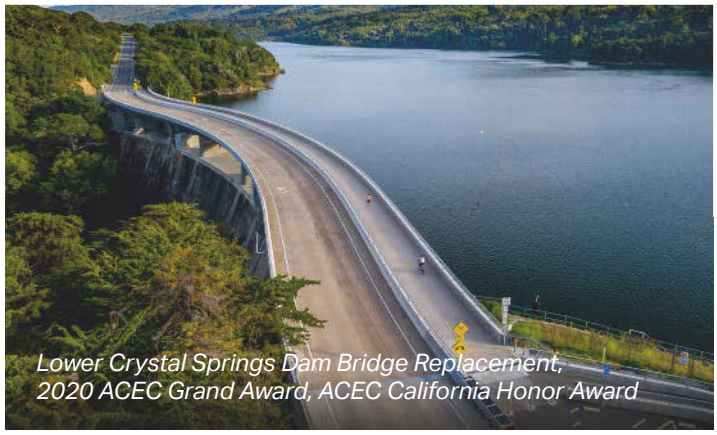
AECOM



Lower Crystal Springs Dam Bridge Replacement, 2020 ACEC Grand Award, ACEC California Honor Award

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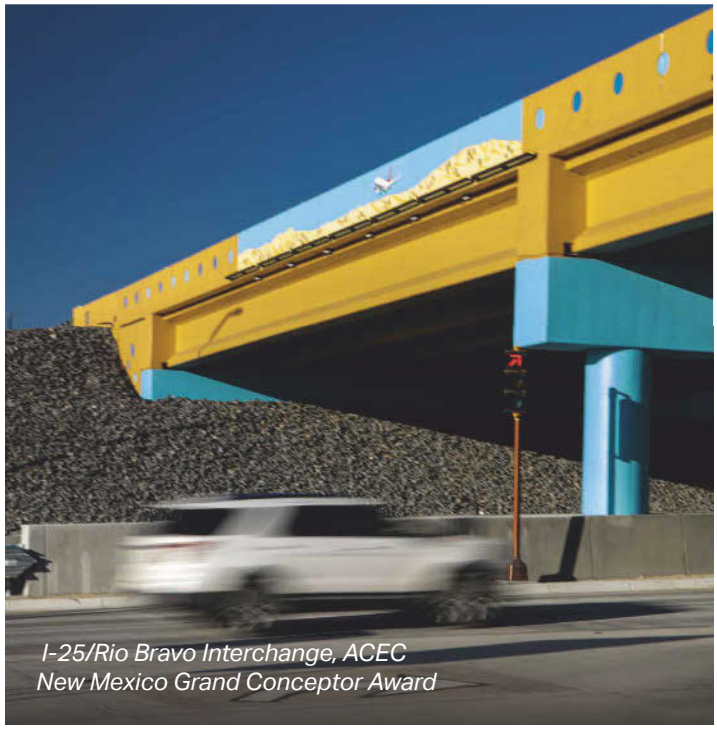
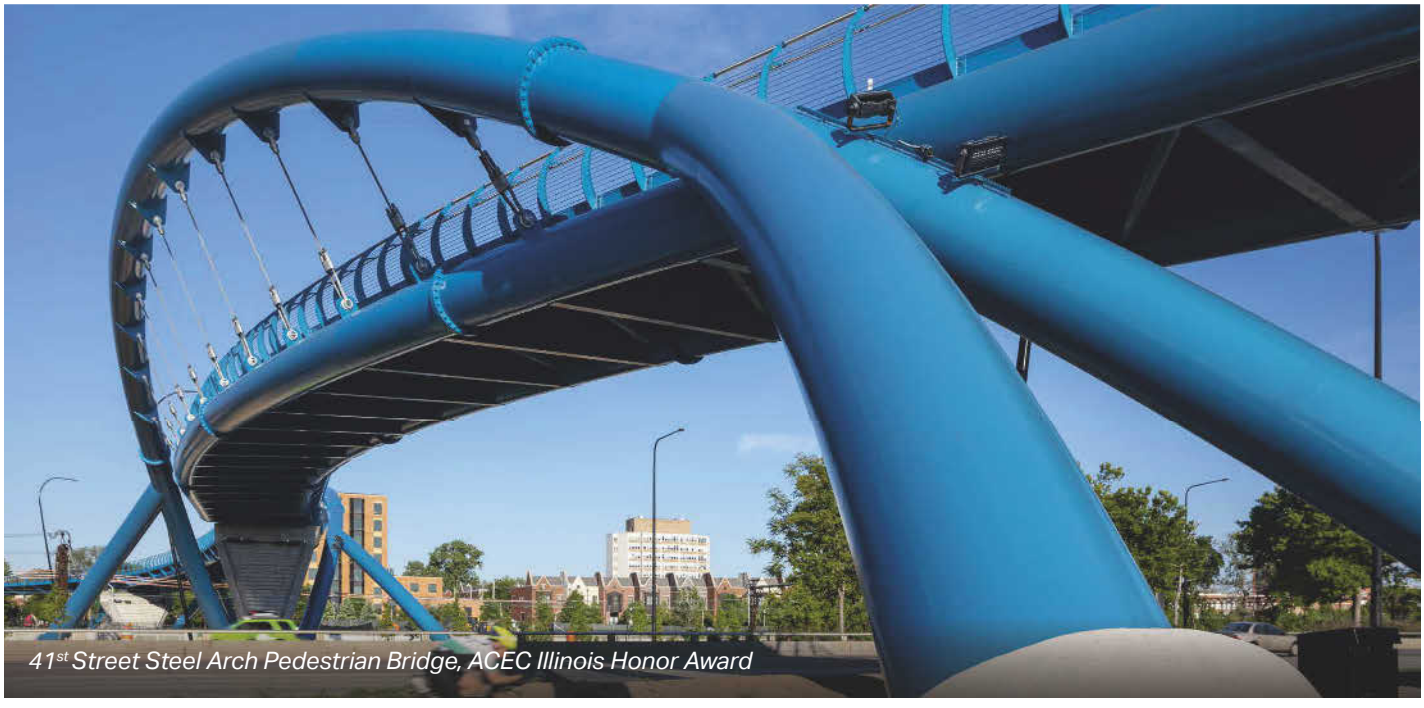


I-25/Rio Bravo Interchange, ACEC New Mexico Grand Conceptor Award



41st Street Steel Arch Pedestrian Bridge, ACEC Illinois Honor Award

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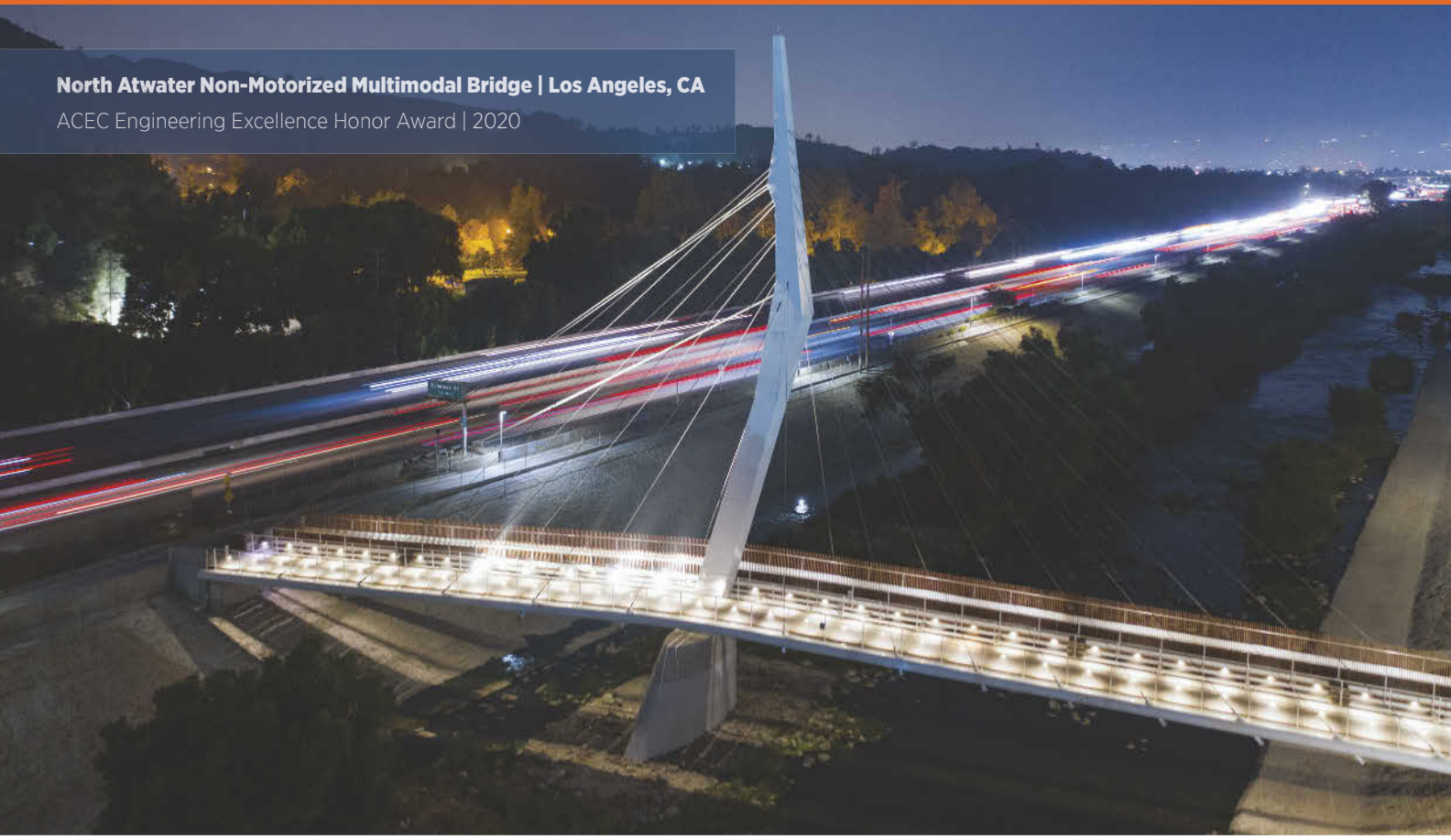
Samuel De Champlain Bridge | Montreal, Canada
ACEC Engineering Excellence Honor Award | 2020



North Atwater Non-Motorized Multimodal Bridge | Los Angeles, CA
ACEC Engineering Excellence Honor Award | 2020

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Kosciuszko Bridge, Brooklyn, NY
Photo credit: Office of Governor Andrew M. Cuomo

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DIAMOND AWARD
BUILDING/TECHNOLOGY SYSTEMS

Photo: Iwan Baan

JB&B

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DIAMOND AWARD
BUILDING/TECHNOLOGY SYSTEMS

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Congratulations to EEA 2020 Honorees!

POST-ELECTION UPDATE

As Inauguration Day nears, unanswered questions remain

Despite the 2020 election occurring more than a month ago, and where more voters cast ballots than ever before, a few final outcomes remain clouded.

Nationwide, as of this printing, President-elect Joe Biden stood at 51.3 percent of election votes (81,282,903), with incumbent President Donald Trump at 46.9 percent (74,223,030). Biden earned 306 electoral votes, well over the 270 threshold needed to win, compared to Trump's 232.

These numbers are important because they are both record-setting achievements. When the dust settles, Biden will have secured the most votes in history, breaking the previous record set by Barack Obama in 2008. However, Trump improved on his 2016 election vote totals to also surpass the Obama record for the second-most votes ever cast.

Meanwhile, Biden and Vice President-elect Kamala Harris are rapidly filling out their administration's Cabinet, along with coordinating a presidential inauguration that will be different from any previous inaugural event in history.

Biden recently said he anticipates his upcoming inauguration will more closely resemble this year's virtual Democratic National Convention than previous swearing-in ceremonies.

Citing safety concerns raised by the pandemic, Biden said it is "highly unlikely" a million people will be on or around the National Mall on Inauguration Day.

"First and foremost, my objective is to keep America safe but still allow people to celebrate," Biden said.

No final decisions have been made but it's expected the main inauguration platform will host far fewer than the usual 1,600 people. There is also ongoing discussion about requiring COVID-19 testing for all who remain on the main platform near Biden.

CONGRESSIONAL RESULTS

Despite Biden's victory for the presidency, the congressional victories expected by the Democrats did not materialize. The Democratic Caucus will enter the new 117th Congress with the thinnest House majority in nearly two decades. In Georgia, all eyes are on the special elections that will determine control of the Senate in January.

Above, left: Record turnout by voters in 2020 presidential election.

Above, right: President-elect Joe Biden, along with Vice President-elect Kamala Harris, announce first choices for Cabinet.

MICHAEL S. WILLIAMSON/THE WASHINGTON POST VIA GETTY IMAGES, DEMETRIUS FREEMAN/THE WASHINGTON POST VIA GETTY IMAGES

ACEC has been full-speed-ahead positioning itself with the new administration and the shifts at the head of the congressional committees that matter to our industry. ACEC President and CEO Linda Bauer Darr said the Council began preparing for a potential shift in power long before Election Day, when bringing in Heather Podesta of Invariant, a prominent Democratic strategist, to help ACEC with strategic engagement with the new administration.


TASOS KATOPODIS/GETTY IMAGES

President Donald Trump speaks to the press as he continues to challenge the results of the 2020 presidential election.

"This effort will enhance our advocacy while we build upon existing relationships with leaders such as House Transportation & Infrastructure Committee Chairman Peter DeFazio and expand our tent to include the new incoming House freshmen from both sides of the aisle," Darr said.

GOOD SCORE FOR ACEC

The Council had an "extremely successful" election outcome, according to Dave Bender, ACEC vice president of political affairs. Not counting the two yet-to-occur Georgia Senate runoff elections, of the 308 ACEC-supported candidates, 95.77 percent won their seats.

Bender said ACEC members were not able to conduct congressional Hill visits in early May because of the pandemic, but Member Organization leaders subsequently conducted nearly 300 virtual meetings throughout the year. "Connecting ACEC members with their respective members of Congress has been and continues to be very beneficial to the success of ACEC's advocacy program," he said. ■

KNOWN CABINET PICKS FOR PRESIDENT-ELECT JOE BIDEN

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Antony J. Blinken

NATIONAL SECURITY ADVISER
Jake Sullivan

U.N. AMBASSADOR
Linda Thomas-Greenfield

SPECIAL PRESIDENTIAL ENVOY FOR CLIMATE
John F. Kerry

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Avril D. Haines

SECRETARY OF HOMELAND SECURITY
Alejandro N. Mayorkas

SECRETARY OF HEALTH AND HUMAN SERVICES
Xavier Becerra

SECRETARY OF DEFENSE
Army Gen. (Ret.) Lloyd Austin

KEY HOUSE/SENATE COMMITTEE CHAIRS (117TH CONGRESS)

U.S. House of Representatives	Chair	GOP Leader
Energy and Commerce	Frank Pallone (NJ)	Cathy McMorris Rodgers (WA)
Natural Resources	Raul Grijalva (AZ)	Bruce Westerman, P.E. (AR)
Transportation and Infrastructure	Peter DeFazio (OR)	Sam Graves (MO)
Ways and Means	Richard Neal (MA)	Kevin Brady (TX)
Appropriations	Rosa DeLauro (CT)	Kay Granger (TX)

U.S. Senate	Democratic Leader	GOP Leader
Appropriations	Patrick Leahy (VT)	Richard Shelby (AL) Susan Collins (ME) Lisa Murkowski (AK)
Energy and Natural Resources	Joe Manchin (WV)	John Barrasso (WY)
Environment and Public Works	Tom Carper (DE)	Shelley Moore Capito (WV)
Finance	Ron Wyden (OR)	Mike Crapo (ID) John Cornyn (TX)
Commerce, Science and Transportation	Maria Cantwell (WA) Amy Klobuchar (MN)	Roger Wicker (MS)

Profiles in Perseverance

Leaders of eight black-owned ACEC Member Firms ensure their companies provide exemplary engineering consulting services—even as they work to overcome systemic challenges

BY BOB WOODS

The U.S. Census Bureau identifies more than 2.5 million businesses across the U.S. as owned by black people. Throughout the ACEC federation, black-owned engineering firms also have a significant presence among membership, as well as in the overall design of the nation's built environment, including roads, bridges, airports, water systems, transportation systems, hospitals, office buildings, housing developments, and other infrastructure.

While achieving their business successes, black-owned engineering firms are operating in an industry that historically has been white and male-dominated, and where minority certification presents both opportunities and challenges. These Member Firms helmed by black leaders are making progress at a time when both America and the engineering industry strive for social and economic equality.

ABES ENGINEERING

MEMPHIS, TENNESSEE

EMMANUEL TUOMBE, CEO

Growing up during the 1990s in post-genocide Rwanda, Emmanuel Tuombe experienced firsthand not only the human toll of civil war, but also its decimation of housing, water, energy, sanitation, and transportation systems. He was able to get an education, however, and was drawn to math and science.

"I wanted to use that knowledge to solve real-world problems," he recalls. "I realized that engineering was the path for me." That path eventually led him to Memphis, Tennessee, where he launched ABES Engineering in 2015.

Tuombe earned a degree in civil engineering in Rwanda and a master's at the South Dakota School of Mines and Technology. He worked for several engineering firms, including Bechtel, before taking the entrepreneurial leap.

Besides offering opportunities to minority-owned businesses, Memphis introduced Tuombe to U.S. civil rights history. Memphis is where Martin Luther King Jr. delivered his famous "I've Been to the Mountaintop" speech in 1968 before his assassination, also in Memphis. "He died fighting for regular people," Tuombe says, reflecting on his personal desire to impact lives, in particular among African Americans.

ABES has built its portfolio by partnering with Fisher Arnold, another local ACEC Member Firm. "They were willing to mentor me and help grow my business by teaming up on several large projects," Tuombe explains.

ABES also is participating in the 800 Initiative, targeting the 800-plus black-owned businesses in Memphis by providing coaching, access to grants, and other resources. Tuombe is advancing his skills, too, through the U.S. Small Business Administration's Emerging Leaders Initiative, an executive-level training program in historically challenged communities.

"The city is doing good things for minority-owned businesses," he says, though he adds that African Americans represent nearly 65 percent of Memphis' population but only about 1 percent of its business revenues. "The community has a ways to go to achieve equal opportunity."

PEER CONSULTANTS, P.C.

WASHINGTON, D.C.

LILIA ABRON, PH.D.
PRESIDENT AND CEO

Lilia Abron has been shattering glass ceilings for most of her life. In 1972, she became the first African American woman in the United States to earn a Ph.D. in chemical engineering. In 1978, while she was the only female professor at Howard University's College of Engineering, she broke another barrier as the first black female environmental engineer to start an engineering consulting firm focused on the environment.

Although PEER Consultants, P.C., approaches projects from the perspective of engineering professionals and scientists, Abron has a longtime, personal interest in the human environment. "I was part of the very first Earth Day," she says, proudly recalling the rallies and workshops she helped to plan for April 22, 1970, when she was working toward her doctorate at the University of Iowa. "We were going to clean up the environment, stop rivers from catching fire, quit using DDT, and have a happy, healthy world."

Abron had considered a career in academia before meeting Delon Hampton, Ph.D., a colleague and professor at Howard, who had launched Delon Hampton & Associates (see page 56). She began consulting for the firm on environmental projects. Then, after she was passed over for tenured promotions twice at Howard, she boldly went off on her own.

PEER has steadily grown by sticking to its environmental niche. "Every time we tried to expand into complementary markets we didn't understand as well or where we were perceived as threats, barriers were put in our way and they ate our lunch," Abron admits. "So we always returned to what we know how to do well."

PEER's current focus on infrastructure projects has made it possible for it to provide critical environmental guidance on water, the physical and built environment, transportation, energy efficiency, and sustainable energy projects in the mid-Atlantic and New England regions.

For 20 years, PEER has helped develop sustainable housing in South Africa's marginalized communities.

One of her most rewarding accomplishments, however, has been PEER's 20-year involvement in developing affordable, energy-efficient, and sustainable housing and communities in low-income and marginalized communities in South Africa.

She envisions similar projects in the United States to improve housing in low-income and marginalized communities. "We can apply our environmental engineering skills to the delivery of municipal services that are affordable and appropriate and will result in the improvement in their quality of life and physical environment."

"We know how to mitigate these problems, but we need money and political will," Abron says.

BRYANT ASSOCIATES

BOSTON

JEFFREY BRYANT, CEO

The family dinner table served up more than home cooking for a young Jeffrey Bryant. It also nourished his childhood interest in how things are built. His father, Jack Bryant, had been a member of the famed Tuskegee Airmen during World War II—the first black military aviators in the U.S. Army Air Corps, a precursor of the U.S. Air Force. They flew more than 15,000 individual sorties in Europe and North Africa during World War II, earned more than 150 Distinguished Flying Crosses, and helped encourage the eventual integration of the U.S. armed forces. After the war, Jack earned a master's in engineering and eventually founded Bryant Associates in 1976.

He'd talk shop at home—enough to entice his son to spend summers working at the firm during high school and college.

Like his father, Bryant attended the University of Michigan for civil engineering. "That's when I fell in love with the profession," he says. His passion and degree led to a job at another Boston firm, where he was a field engineer on the Big Dig, then to a stint with a major construction firm.

"In 2006, my father and I talked about me joining his firm," Bryant recalls, though admitting, "It wasn't my plan to go into the family business." Well, he did—as CEO no less—and worked alongside his father until the patriarch passed away in 2017.

Bryant is especially proud to be involved with the Massachusetts Bay Transportation Authority's ongoing Green Line Extension—designed to increase access to fast and reliable public transit service in historically underserved areas. "It will bring the 'T' to Somerville and Medford, whose large populations rely on public transportation," he says.

There have been growing pains, too, such as during the Great Recession and now the COVID-19 crisis, both of which halted some projects, as well as bidding on new ones. Despite this, the firm has not laid off any of its nearly 70 employees during the pandemic.

A persistent obstacle, however, is one faced by many small and midsize black-owned engineering firms: "The challenge in being a minority business enterprise is in talking to the largest firms and agencies about why they need firms like ours on their teams," Bryant explains. Although it's not just about having minority business enterprise (MBE) certification, he adds. "It's all about what you've done and your track record."

Being an ACEC Member Firm helps Bryant deal with that challenge. "The greatest benefit is talking and organizing with peers about common issues and how they address them, so we can improve how everyone does business together," he says.

Bryant Associates is working on Boston's Green Line Extension to increase access to public transportation in underserved areas.

Denver's FasTracks light-rail system was Triunity's first project. Seventeen years later, the firm still works with the Regional Transportation District.

TRIUNITY ENGINEERING & MANAGEMENT

DENVER

MARVIN THOMAS, CEO

Choosing a career path was a family matter for Marvin Thomas. "I followed my older brother, Jonnie," he says. So six years after the elder Thomas graduated from Kansas State University with a degree in electrical engineering, Marvin followed suit. When the siblings started Triunity Engineering & Management, several years later, family was once again an influence.

"The real entrepreneur in the family was our dad, a ninth-grade-educated cotton sharecropper from Mississippi who worked multiple jobs while raising seven kids," Thomas says. "He taught that through hard work, anything is possible."

The Thomas brothers were working separate engineering gigs—Jonnie designing control systems for transit systems; Marvin, an officer in the Air Force and then consulting in the defense industry—before going into business together in 2003. They decided to give it three months, "and if we don't win anything, we'll go back and find regular jobs," Thomas says.

At the time, Denver's Regional Transportation District (RTD) was just getting its FasTracks light-rail system underway and hired the fledgling firm. "That was our first contract, and 17 years later, we're still working with RTD," Thomas reports.

Today, Triunity is 80 employees strong and primarily involved in transportation projects. "Much of the work we do is with public-sector programs," he says. "As we grow, we will continue priming more, but much of the work we do is as a subconsultant," Thomas says.

Looking ahead, he is cautiously optimistic that the federal government will finally pass legislation to fund rebuilding the country's crumbling infrastructure. "As a small firm with a niche specialty in communications and control systems, I think we are well positioned to grow once our federal government starts investing in highway and rail systems," he says.

MILHOUSE ENGINEERING & CONSTRUCTION, INC.

CHICAGO

WILBUR C. MILHOUSE III
CHAIRMAN AND CEO

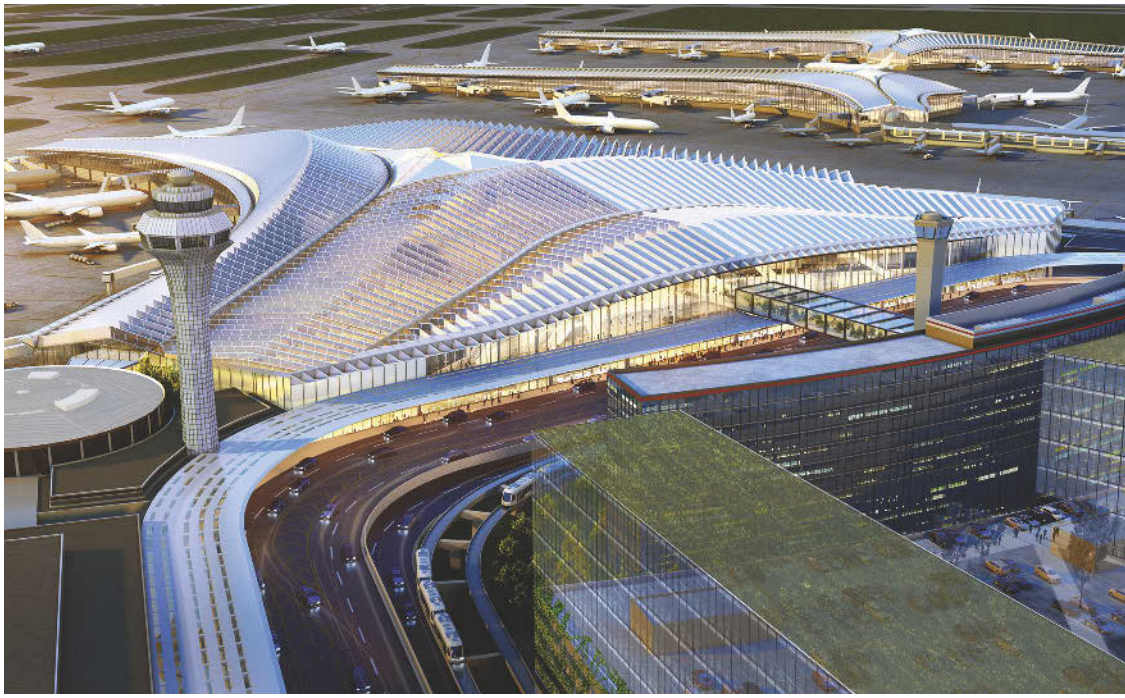
While trying to get his Chicago-based engineering firm off the ground in 2003, Wilbur Milhouse III took a second job as a delivery person. "Early on, we struggled," he admits, remembering waiting for projects he'd won to get started. With no revenue coming in, for six months, "I spent nights delivering pizza and days trying to keep the business together."

Milhouse resisted thoughts of packing it in, instead homing in on his idea of "creating a great firm that takes care of its people," he says. "I'm glad I did."

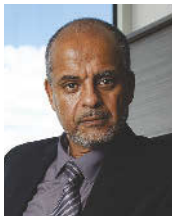
Today Milhouse Engineering & Construction, Inc., is the Windy City's largest black-owned engineering firm, employing more than 270 people.

One of the firm's first big jobs, a modernization project at O'Hare International Airport, proved pivotal. "It gave us the opportunity to marry together young and senior individuals who worked with each other to solve problems," he says. From that core team, Milhouse has grown and diversified. One of the firm's current projects is the Global Terminal at O'Hare, a joint venture on which it is "overseeing all the engineering disciplines," Milhouse says.

Despite its size and reputation, Milhouse still must overcome negative perceptions. "I used to say I went to the same schools and passed the same tests as everybody else, and have the same pedigree related to projects, to convince clients to give us a try," he says. "I tell clients to give us something small to show them how serious we are about our craft. We've built a great company by being able to deliver and doing things right."



Milhouse Engineering & Construction oversees all of the engineering disciplines on the Global Terminal at O'Hare International Airport in Chicago.



DELON HAMPTON & ASSOCIATES, CHARTERED

WASHINGTON, D.C.

MAMO ASSEFA, PRESIDENT

Although he had dreamed of becoming an engineer since ninth grade, Mamo Assefa says that it was after earning a degree in civil engineering at the University of Minnesota–Twin Cities that he became truly inspired. He then learned about Delon Hampton, Ph.D., a trailblazer in the industry who founded the black-owned design and construction firm Delon Hampton & Associates (DHA), in 1973.

Assefa read about the challenges Hampton faced early in his career, during the 1960s, when there were not many African American civil engineers. "His experiences of racial discrimination matched mine while I was working early in my career on construction sites," Assefa says. "He understood what I felt. That's when I decided I wanted to work for DHA."

He joined the firm in 2001 and worked alongside Hampton as DHA grew in size and stature as one of the premier minority-owned engineering companies in the country. The Member Firm has distinguished itself as a partner on transportation, transit, aviation, water, wastewater, land development, and infrastructure projects in Washington, D.C., Baltimore, Atlanta, Los Angeles, Chicago, and Memphis. "It feels good to be part of significant projects that have changed neighborhoods and landscapes of cities and have a direct impact on improving people's quality of life, as well as their environment," Assefa says.

Today's playing field is still not level in terms of competing with large, non-minority firms, says Assefa, who became majority owner and president of DHA when Hampton retired in 2018. "The position of most large firms is to utilize minority firms on portions of the projects they usually don't want to perform—to the point where you are pigeonholed in that role, and the movement and growth is kind of limited," he explains.

While that's not necessarily a conscious process, "we all have to be conscious and intentional about creating a diverse environment for the engineering profession," he adds, citing the ACEC forum that educates members about the benefits of working with minority firms.

MOODY ENGINEERING

COLUMBUS, OHIO

DAVID MOODY
PRESIDENT AND CEO

When he started his firm five years ago, David Moody and a few other engineers built relationships with architectural firms and housing developers in Columbus, Ohio, as a low-cost, quick-turnaround site developer. "Cheaper, faster was music to their ears," he recalls, "and as long as I could pay the bills, we didn't need to be super profitable. I wanted to establish our name, build our portfolio, and prove ourselves."

Moody next sought civil engineering work with municipalities in his home base, as well as in Cleveland—again with a twist. He analyzed who was winning jobs, but also second- and third-place finishers. "We marketed ourselves to them," he explains, "saying that with us on your team, maybe you can get over that edge" to win the job next time.

Meanwhile, Moody joined ACEC Ohio and attended matchmaker events, where he promoted his firm with potential partners. "Any opportunity to tell people about our business, I was there," he says.

Moody also became certified as an MBE and a participant in Encouraging Diversity, Growth, and Equity, a small business assistance program in Ohio for economically and socially disadvantaged enterprises seeking public contracts.

While those designations give Moody a boost, "there are so many negative associations with minority-owned firms in terms of they're just not capable," he says. "The only reason they're on a project is because of minority goals. My take is that you never assume anyone else on a project is there because they're not good enough. When I interview for projects, I have to constantly say, 'We're a minority firm and, by the way, we're qualified.'"

The firm now employs 13 professionals, has completed more than 100 projects, and is involved with its largest job to date, the $156 million Interdisciplinary Health Sciences Center at The Ohio State University. "Even at our small size," Moody says, "we're capable of doing what a much larger firm can do."

"When I interview for projects, I have to constantly say, 'We're a minority firm and, by the way, we're qualified.'"

DAVID MOODY
PRESIDENT AND CEO
MOODY ENGINEERING

ABNA

ST. LOUIS

ABE ADEWALE, CEO, AND NICOLE ADEWALE, PRINCIPAL

When Abe and Nicole Adewale co-founded ABNA in St. Louis in 1994, they had several things in common: engineering degrees from Georgia Tech; several years together nurturing their skills at the Illinois Department of Transportation, where the future husband and wife met; and $45,000 in savings to seed their venture.

They also shared gumption. Although their background was in building highways and bridges, "we started out participating in planning efforts in East St. Louis, after which we did site designs for churches and doctors' offices," Abe says. As a cost-saving measure, they sought out recently retired engineers, who, at affordable salaries, "brought expertise, relationships, and willingness to teach our younger personnel," he says.

Their unconventional strategies paid off when the upstart firm landed a six-figure project with the Metropolitan Sewer District. "We used the same model to get an airport expansion project, before we returned to our first love, transportation, and the light-rail system Bi-State Development Agency (Metro) was developing," Abe says. By 2005, ABNA was named by *Inc.* magazine as one of the fastest-growing urban companies in the United States.

ABNA takes pride in its transportation projects, which help with congestion and increase safety.

Transportation remains near and dear to the Adewales, in part because such projects feed their passion for impacting communities. For example, ABNA takes special pride in a design-build project involving the reconstruction of a 12-mile stretch of Interstate 270 that runs through North St. Louis County. "It is very gratifying," Nicole says. "We used to live in the area, and the project will eliminate bottlenecks and improve safety for the middle-class, very diverse, predominantly African American area."

Internally, diversity is a guiding philosophy. It is reflected in ABNA's workforce of more than 60 people, as well as its sponsorship of scholarships through the National Society of Black Engineers. "We're proud of the diversification not only among our employees but also the services we provide," Abe says. "We cross-train people so that when certain sectors are down, people have the ability to stay employed because they have learned new skill sets."

That has been a silver lining during the COVID-19 crisis. Despite a slowdown on some projects, no one was laid off. "The concept of diversification in our work and clientele has brought value to us all," Nicole says. ■

***Bob Woods** is a technology and business writer based in Madison, Connecticut.*

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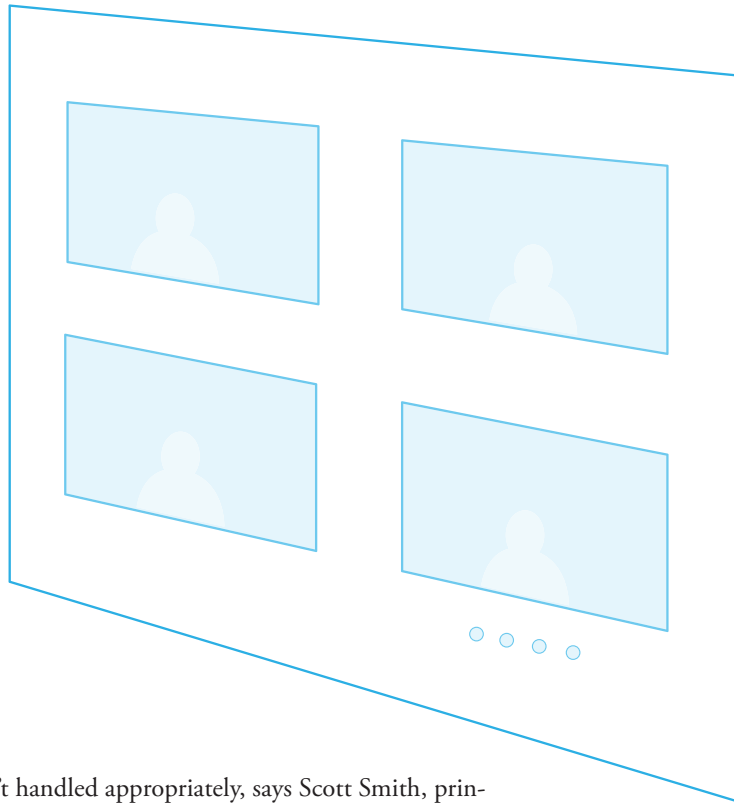
2020 ACEC PLI Survey of Member Firms for FY 2019:

SURVIVING AND THRIVING

WHILE CYBER LIABILITY AND PANDEMIC-FUELED REMOTE WORKING HAVE CREATED ADDITIONAL RISKS, THERE'S REASON TO BE OPTIMISTIC

BY MAUREEN CONLEY



Most ACEC Member Firms in 2019 were growing, carrying professional liability insurance (PLI), happy with their carriers' pre-claims and claims handling, and loyal to their brokers, according to the 2020 PLI Survey of Member Firms for FY 2019. While responses were due March 13, before widespread COVID-19 restrictions kicked in, there is much to celebrate in these results.

Many signs point to a robust industry and soft insurance market. Even as the country wrestles with a pandemic, experts say many of these factors remain, and the industry is positioned to survive and even thrive under conditions that could not have been predicted at the beginning of 2020.

"Other than a brief decline in 2016, firms have seen increases in revenue every year since 2010," says Jim Messmore, senior vice president and infrastructure market principal at Hanson Professional Services, Inc., and past chair of the ACEC Risk Management Committee. In fact, half of firms increased revenue by 5 percent to 19 percent, with 74 percent of respondents growing in 2019 (versus 77 percent in 2018).

More good news: 99 percent of firms carry PLI; carrier turnover remains low (11 percent versus 8 percent for 2018); and broker turnover is even lower (4 percent, near the low end of the 3-percent-to-11-percent range over the past five years). The carriers continue to receive high marks for their services. Respondents who were "very satisfied" or "satisfied" totaled 90 percent for pre-claims assistance, 88 percent for claims handling, and 87 percent for risk management.

In addition, "things are pretty steady from a claims and liability standpoint," says Tim Haener, president and CEO of J-U-B Engineers, who, along with Messmore, provided oversight for the survey. Claims were flat for 58 percent of respondents, with 15 percent reporting fewer claims and 27 percent reporting more—all consistent with the past two years.

FINDING THE RIGHT FIT

Price is typically the biggest reason design firms change carriers and was a factor for 49 percent of firms that moved in 2019. Better policy terms came in second, cited by 19 percent of respondents. Firms might also switch to get a higher limit than is available from their current carrier, says Mark Jackson, president and board member of a/e ProNet and president at JCJ Insurance Agency. Or a firm may move if they think a claim wasn't handled appropriately, says Scott Smith, principal at Smith Brothers and president of the Professional Liability Agents Network (PLAN).

Getting a multiyear policy may also be a good reason to change carriers, says Jeff Connelly, senior vice president at Greyling, a division of EPIC, and program manager for the ACEC Business Insurance Trust. A multiyear policy avoids annual renewals and locks in the premium, regardless of economic conditions. Firms may also shop around if their current policy has too narrow a definition of professional services, leaving the firm uninsured if it goes outside the policy's restrictions, Connelly says.

Brokers say designers should focus on quality when choosing PLI. Smith advises that firms should select a partner among the carriers that offers solid continuing education and assistance with contracts. Jackson adds that they should also make use of a specialty broker's expertise to help with contract reviews and understanding exposure. Connelly states that brokers can identify critical gaps in coverage and match firms with carriers that "may be better for them, both in terms of price and coverage."

Peter Moore, president and CEO of Chen Moore and Associates, says he relies heavily on his

Claims were flat for 58 percent of respondents, with 15 percent reporting fewer and 27 percent reporting more—all consistent with the past two years.

"Nowhere in your training to be an engineer did you ever understand how much risk management, contracts, and insurance would impact your life."

PETER MOORE
PRESIDENT AND CEO
CHEN MOORE AND ASSOCIATES

broker for contract reviews and pre-claims assistance, noting that the broker understands the firm's business; can effectively explain it to the carrier; and identifies risks for potential lawsuits. The right expert can review a contract to quickly identify the clauses most likely to cause problems "and keep us out of most trouble," he says.

Contract reviews are key to avoiding "situations where our PL coverage is voided or that would put us at significant risk," says Matt Wannemuehler, principal at Lochmueller Group. Webinars also remind him and his staff "what these terms and conditions in contracts mean and how important it is to communicate correctly with your client—especially if you find yourself in a potential situation where there might be a claim," he says.

CYBER LIABILITY

For the first time, the survey also asked about cyber coverage. A small majority of firms (56 percent) hold stand-alone cyber policies, while more than half of firms with revenues under $5 million rely on their PLI policy's cyber coverage. The experts warn this may not be enough. Jackson says it can give a false sense of security and may cover only professional services cyber claims. "With more employees working remotely, firms have greater exposure to a security breach," he says.

Greater exposure means all firms could benefit from a cyber policy's access to specific expertise and higher, separate limits than would be available under the standard PLI policy or a cyber endorsement, says Kevin Collins, senior vice president of professional liability at Victor Insurance Managers, Inc.

With increased use of virtual platforms, even with the highest security protections, designers need to be diligent in protecting themselves against risks from social engineering, phishing, and other predatory online practices, says Al Rabasca, director of industry relations at AXA XL.

While cyber policies are currently inexpensive, Connelly says, rates are likely to increase as firms see claims.

RISKY BUSINESS

Experts agree risk management is the best protection against a claim. Black & Veatch, with 11,000 employees in more than 100 offices worldwide, looks first at contract requirements when considering a project, according to Joseph Watts, director of insurance and project risk management. The firm might pass on a project with onerous terms, including really high or unaggregated limits, or "if we don't feel it's a good client fit," he says.

But many repeat customers are willing to work through contract language to adequately address the risks borne by both parties. In fact, Black & Veatch is "more apt to do a project that might appear to have a riskier profile for a long-term client than we would for someone brand new," Watts says.

It is critical that the scope of services is very clear, especially during the pandemic, says Jim Schwartz, an A&E focus group leader for Beazley Group. "We are starting to see requests for services around making the workplace safe from the virus, which architects and engineers may not have the expertise to do," he says. "My recommendation is to try to have the owner retain a consultant directly to take on that scope so it doesn't fall under the prime design professional's scope," he says.

Firms should also develop strategies for slow- or non-paying clients, says Schwartz, adding that a fee claim "never ends well" and may result in counterclaims alleging negligence or breach of contract. His advice? "Follow all the rights in your contract. Give notice—typically 10 to 14 days. If the issue is still not resolved, take the next step," which may include exercising the designer's right to stop work or not to provide drawings unless they are paid.

J-U-B watches for uninsurable contract language, client reputation, and projects that may not fit within the firm's core expertise, Haener says. The firm also stays away from design-build projects, which he feels can "marginalize the engineer and increase your risk." Haener counsels firms that want to work on such projects to find good contractors "that treat you more like a partner than a commodity." The construction manager/general contractor

method has a greater likelihood of success for the designer, Haener says, providing the benefits of design-build—getting the contractor involved early—while protecting the engineer by maintaining a relationship with the owner.

"Nowhere in your training to be an engineer did you ever understand how much risk management, contracts, and insurance would impact your life," Moore says. Taking on uninsurable contract language is "a very risky proposition," but it's also a business decision that he might consider in some cases. As 80 percent of Chen Moore's business is with public clients, he has extra protection in the liability and indemnification requirements codified in Florida statute.

Indiana-based Lochmueller Group works with public agencies and rarely has to turn down work, Wannemuehler says, but contract language, the potential for significant risk, or client reputation might keep the firm away from a private project.

States took different approaches to construction during the pandemic, with some restricting access to sites while others accelerated infrastructure projects. Regardless, it is important to identify and manage risks due to social distancing; for example, remote site visits should be done through live video tours "rather than relying on photos or prerecorded video from the contractor," Jackson says. "Engineering firms need to properly document virtual site visits and notify the project owner of their limitations," or risk increasing their exposure.

AXA XL, for one, is concerned about potential PLI exposures due to the economic downturn, including third-party claims for such things as "missed market opportunities," contractor extension and fee claims, redesign for return to work, and construction worker COVID-19 claims, Rabasca says. Designers should also be vigilant on proactive client communication, providing excellent service, more frequent follow-up, and recognizing and managing scope creep, he counsels.

Respondents who were "very satisfied" or "satisfied" totaled 90 percent for pre-claims assistance, 88 percent for claims handling, and 87 percent for risk management.

LOOKING AHEAD

Expect to see more pressures in terms of price, supply of work, contract language, and contractor claims, which can lead to more claims and premium increases, Haener says. This means designers need to be extra vigilant. If firms diversify their services based on the availability of projects, to be successful they will need strong quality control procedures including contract reviews, good communications, and the ability to manage their way through the process effectively, Collins says. The challenge may be especially great for firms without full-time risk managers, such as firms with revenues below $10 million.

Another challenge will be managing the new work-from-home paradigm. This can mean greater access to talent by eliminating geographical considerations, but it also complicates communication and the ability to grow profitably with the tools available, Collins says. He urges designers to consult the broker earlier in the process—up to six months ahead of their renewal—to get a sense of the insurance marketplace.

Firms should consider adding force majeure clauses to professional services agreements, Schwartz says, and include them in any construction contracts they prepare. Doing so can avoid putting more risk on the contractor that can be pushed down to design professionals, he says. Fees and margins will be tighter going forward, "and keeping up the investment in risk management is more important than ever," Schwartz says. "Any time fees may be going down, there is pressure to take on work. But this is no time to let down your guard." ■

__Maureen Conley__ is based in Washington, D.C., and has more than 25 years of experience writing about science, engineering, and government policy.

"Other than a brief decline in 2016, firms have seen increases in revenue every year since 2010."

JIM MESSMORE
SENIOR VICE PRESIDENT AND INFRASTRUCTURE MARKET PRINCIPAL
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2020 ACEC COALITIONS:

PREPARING FOR A POST-COVID-19 WORLD

FACED WITH UNPRECEDENTED CHALLENGES, ACEC COALITIONS LOOK TO PARTNERSHIPS AND NEW BUSINESS OPPORTUNITIES TO WEATHER THE EFFECTS OF THE PANDEMIC

BY STACY COLLETT

Engineering firms find themselves looking into a murky crystal ball right now. The pandemic has not impacted all firms and disciplines equally, but large and small firms alike have experienced some pain.

"We're all struggling, whether it's making our rent payments, paying our staff, or returning to the workplace," says **Matt Murello**, **ACEC Coalitions chair**. "Right now, we need to stay together and stay whole."

Business development has become incredibly difficult in the last six months, says **Dave Mykins**, **Coalition chair-elect.** "It's hard to build a relationship without being in the same room and seeing nonverbal cues and reactions."

RED BLACK/GETTY IMAGES

Disciplines such as structural engineering are affected in different ways. **Stacy Bartoletti**, **chair, Coalition of American Structural Engineers (CASE)**, says that what he sees happening with the pandemic is a pretty diverse set of impacts. "Some firms are turning amazing profits right now. Their cost structure is down, and they're doing really well working remotely. But there are others in certain segments of the market where work is stopped or canceled or slowed down, and there are a lot more questions about what the future brings."

ACEC's seven coalitions met virtually in August to discuss how to weather the current crisis, preserve firm culture, and find new opportunities in a post-COVID business world.

SAFETY FIRST

Land Development Coalition (LDC) members say they must balance their requirement to be physically present at project sites with their need to keep employees safe. "We do inspections and various other things on-site, so how are we protecting our employees?" asks **Jay Wolverton**, **LDC chair** and executive vice president and chief growth officer at CHA Consulting, Inc. It also raises contract concerns. "We go to some sites, and there's a 30-minute safety meeting to begin the day and end the day, so you're losing productivity," he says, which leads to other questions. "Is your original proposal still acceptable? Or do you need to go back and add extra services or extra work authorizations?"

Going forward, Wolverton expects less reliance on foreign manufacturers and a boon for U.S. manufacturing, warehouses, and distribution facilities. "We're never going to be in the position again where we've become so reliant on foreign equipment and medicine," Wolverton says. "Advanced manufacturing is going to be huge. We're already starting to see waves along those lines in engineering projects."

"There's also talk about online retailers taking over some empty big-box stores in shopping centers that aren't occupied and turning those into distribution areas," says **Geoprofessional Coalition (GEO) Chair Chuck Gemayel**, especially for the last mile of distribution, a particular challenge with refrigerated products. "Some parts of the market are still active, especially logistics and distribution centers and data centers, and we're seeing new construction opportunities. There is also usually a switch from long-term capital projects to maintenance and rehab projects. So those could see some pickup."

LONG-TERM IMPACTS

In a post-COVID-19 world, it's likely that people are not going to want to be physically close, says Mykins, who is also president of Lynch Mykins Structural Engineers, PC.

As a result, the built environment is going to be changing completely. "Offices and higher education learning spaces are going to have to be different in the future to allow interaction to occur but with some physical distancing," Mykins adds.

Most mechanical, electrical, and plumbing firms have stayed busy through the pandemic, says **Joel Goodmonson**, **chair**, **Coalition of American Mechanical and Electrical Engineers (CAMEE)**, although those working with commercial buildings, hospitality, or retail aren't faring as well.

Matt Murello

Dave Mykins

Stacy Bartoletti

Jay Wolverton

Chuck Gemayel

"On the mechanical side of our practices, clients want to know, 'How do we prepare our buildings for not necessarily this pandemic but the next one?'" says Goodmonson, principal and executive vice president at Architectural Engineers, Inc. "So, as we start thinking about new buildings—for example, what is the bathroom going to look like? Completely touchless? Probably." They're also rethinking air handling: high-end filtration, un-recirculated air systems, even ultraviolet filters to kill bacteria.

These conversations have a financial operating cost and energy impact, Goodmonson says. They also run counter to some sustainability goals. "If you have a client who is committed to a net-zero building but with unrecirculated air, those two things don't really work very well together, or it becomes really difficult. But those are the balances and the conversations that the firms in the coalition are having with their clients right now."

INTERNET INFRASTRUCTURE OPPORTUNITIES

Another post-pandemic opportunity, especially for small firms, will be infrastructure disparities in rural and low-income areas, says **Bill Lloyd**, **Small Firm Coalition (SFC) chair**. "With the increase in remote workers, either by choice or by governor's directive, it's really exposed the weakness in our broadband across the country, especially in rural areas and in some less affluent areas. Students or employees are trying to work from home, and they don't have good internet connection," he says.

"There has been movement on the federal level for a long time to expand broadband, but it has been brought to the forefront," he continues. "A lot of small firms specialize in niche areas and work with our rural co-ops to expand broadband, so there's a lot of opportunities for firms there."

LONG-NEEDED INFRASTRUCTURE FUNDING

Another effect of the pandemic has been the onslaught of online shopping, food delivery, and interstate travel, bringing new attention to the long-bemoaned lack of infrastructure funding.

"This crisis has made it clear how important efficient and modern infrastructure is to our society," says Lloyd, president of Great West Engineering.

A critical infrastructure budget, if passed, would help the engineering and surveying industry's recovery, says **Joseph Romano, chair, Coalition of Professional Surveyors (COPS)**. "There may be more consulting firms looking at government work if the infrastructure topic is resolved. I think some companies may have to be flexible to include public-based projects in their portfolio. While many of the project tasks are similar, these are different business models, and few firms can complete both public and private projects effectively."

Worst-case scenario? "You may see some more acquisitions of smaller firms by larger firms and downsizing," he says. "I'm hoping that doesn't happen—there is a place in our market for all sizes and types of firms."

LEVELING THE PLAYING FIELD

The remote nature of business going forward, despite its challenges, should benefit smaller firms and help level the playing field when it comes to emerging business opportunities, says **Sergio "Satch" Pecori, Design Professionals Coalition (DPC) interim chair**.

"Our business development efforts will change considerably," says Pecori, chairman and CEO of Hanson Professional Services. "Many in-person business development meetings will revert to virtual meetings. This will enable smaller firms to compete with larger firms in the business development arena. Smaller firms will become more competitive since the cost of entry to the marketplace will be affordable."

Pecori is excited about ACEC's commitment to being a critical resource for developing business strategy for Member Firms, one of five goals in the organization's strategic plan. "This embodies the business of engineering and relates to how our Member Firms will thrive in the current and future business environment," Pecori says. The plan promotes model contracts to help ensure safeguards for members, advocacy for members' initiatives, forecasting future opportunities, and a continued push for value pricing of work.

JOINING FORCES

Firms that can't support the changing market will have to reimagine themselves, as they have during market fluctuations in the past—a task made easier with the help of ACEC and its engaged coalition members.

"There may be more teaming opportunities, not just within one coalition but also across coalitions and disciplines," says Romano, who is also a principal at Langan. "Other coalitions may need your services. Who better to work with than someone you already know and have a trusted relationship with?"

Joel Goodmonson

Bill Lloyd

Joseph Romano

Sergio Pecori

Gemayel has seen the benefits of collaboration firsthand. "With geoprofessional firms, some of our clients are the major civil engineering firms in ACEC. ACEC conferences and roundtables provide a good place where we can interact with our clients," says Gemayel, COO and senior vice president at SME.

"For example, CASE was in the process of publishing guidelines related to geotechnical evaluations, and we were able to review those and provide comments before they were published. We all have similar issues related to risk and clear definitions of scope of services, and it helps to be in agreement at the beginning than having to negotiate these issues with each structural engineer later."

THE FUTURE OF WORK

Now that most firms have survived the initial shock of the pandemic, they need to start figuring out what comes next. Will employees return to the office, or will remote work become permanent?

"For my firm, I have every intention that our employees will be coming back to the office," says Bartoletti, CEO, chair, and principal at Degenkolb Engineers. "I think it's going to be a much more flexible work environment, but I absolutely do not see the offices going away. Offices have way too much influence on the culture of our company."

Bartoletti likens remote work to borrowing from a bank. "I think we're drawing down our cultural bank right now," he says. "Our employees are doing great, but they're missing the social aspects, the interaction, the learning that goes on in the office, the mentorship. Eventually it's going to start to impact our business, and we are going to need to pay back the cultural bank."

Regardless of size or discipline, "firms that are financially strong and have been around for a while and have a diverse client base will get through this, as well as a lot of new firms that have really good, sound principles," says Murello, president of Lewis S. Goodfriend & Associates. "We have to keep doing really good work, be competitive, and stick to what we do best." ■

***Stacy Collett** is a business and technology writer based in Chicago.*

ACEC

COLO

Its rich history includes impressive victories in education,

COLORADO

Strength Through Diversity

advocacy, and member project achievements

BY CALVIN HENNICK

Colorado is the 21st most-populous state in the country—and yet, the state Member Organization typically hovers around the top five in terms of ACEC membership.

The Centennial State boasts an outsized membership roll as well as an outsized influence on the ACEC national scene—a number of past ACEC national chairs and presidents have hailed from Colorado. This stems from a combination of a rich history, an emphasis on involving firms from across engineering disciplines, and a track record of providing tangible value to members.

"We punch above our weight," says Peter Monroe, ACEC Colorado past president and current national director, as well as a client executive with IMEG Corp. "Our membership numbers say a lot about how well the Member Organization has been received throughout the years in Colorado and the respect it has in the engineering community here."

The organization also boasts a diverse array of firms, says Marilen Reimer, ACEC Colorado executive director. "We serve both the vertical and horizontal sectors," she explains. "Some organizations concentrate on one sector, such as transportation, but we're very broad. We're very conscientious about having that diversity in our membership and have to serve those members accordingly."

ACEC COLORADO AT-A-GLANCE

ACEC Colorado's membership includes more than 255 firms representing approximately 11,000 employees. The State Member Organization was founded in 1956.

ACEC Colorado is led by Executive Director Marilen Reimer, President Karlene Thomas, and National Director Peter Monroe.

SETH MCCONNELL/THE DENVER POST VIA GETTY IMAGE

Member Firm Merrick & Co. was recognized for its work on the South Platte River Run Park in Sheridan, Colorado.

'A MUST-JOIN ORGANIZATION'

Engineering firms in Colorado are drawn to the Member Organization for its unparalleled networking opportunities, leadership training, and business development programs.

"The reason we join is that you can be a really great engineer and be really technically proficient and still starve to death," Monroe says. "ACEC Colorado is the only organization that really teaches us our business. And without knowing that part of it, we can't do our engineering. We would go broke very quickly. For people who are looking to grow in their profession, it's a must-join organization."

Members know that they can call ACEC Colorado with practical questions about topics such as buying a building, and Reimer will be able to put them in touch with a number of people who can offer expert advice. Because the organization places such an emphasis on attracting members from different engineering disciplines, members can connect, not just with their competitors, but also with potential collaborators.

"ACEC Colorado is the only organization that really teaches us our business. ... For people who are looking to grow in their profession, it's a must-join organization."

PETER MONROE
ACEC COLORADO NATIONAL DIRECTOR
CLIENT EXECUTIVE, IMEG CORP.

Karlene Thomas, president of ACEC Colorado and co-owner of Pinyon Environmental, says the organization's business training and networking opportunities are invaluable to her as a business owner. "You meet people from all different sizes of companies," she says. "At conventions, there are roundtables for small, midsized, and large firms, and it's just a back-and-forth talking about business issues with people in similar situations."

Elizabeth Stolfus, past president and past national director for ACEC Colorado and president of Stolfus & Associates, says her employees have benefited from the leadership training offered by the Member Organization. "It is definitely our go-to for more formal, out-of-the-office business development training for those people growing into management roles," she says.

AN ADVOCATE AT THE STATE HOUSE

ACEC Colorado has chalked up several significant legislative wins in recent years to benefit the state's engineering industry. In 2015, the Member Organization successfully lobbied to eradicate "duty to defend" language from state law, which required firms to pay defense costs for public agencies during lawsuits, even if the firms hadn't been found negligent.

"That change opened up many markets for our members, especially working with local agencies," Reimer says. "We were able to convince legislators that this was about due process and fairness. That helped us—the ability to convince legislators that this was not good public policy. We weren't shirking our responsibility. If we were negligent, we needed to be responsible for that, and we had the insurance to cover it. But the idea of paying for defense costs before we were found negligent? That was not right."

Then, in 2018, ACEC Colorado was able to kill an unfavorable bill regulating subsurface utility engineering and help shape replacement legislation. Although the situation put the Member Organization in the unusual position of lobbying in favor of new regulations, the process ultimately led to positive changes for engineers throughout the state. "It's elevating the subsurface utility engineering discipline a lot," Reimer says. "We have done an incredible amount of training. ACEC Colorado typically doesn't lobby to put new guidelines into statute, but we had a legislator who was going to put his own guidelines in place, and we weren't about to let that happen."

Stolfus says the Member Organization has helped her recognize the opportunity and responsibility that engineers have to advocate for their industry. "Advocacy is super important, and it's something I learned at ACEC Colorado," she says. "I didn't fully appreciate before that I have a voice, and I need to contribute my voice."

MORE THAN SIX DECADES OF HISTORY

The organization was founded in 1956 with a mission "to assist its members in achieving higher professional, ethical, business, and economic standards, enabling Member Firms to provide quality consulting engineering services for their clients and the public."

Originally named the Consulting Engineers Council of Colorado, ACEC Colorado was one of the 10 founding Member Organizations of the national association. Early meetings were held in a revolving series of restaurants, and membership hovered around two-dozen firms in the late 1950s. In 1964, the organization held the first truly national annual membership convention in Denver, drawing more than 550 attendees from 42 states. By the early 1980s, membership had grown to 237 firms employing 3,700 people. Largely due to firm consolidations, ACEC Colorado has slightly more Member Firms today, but now represents 11,000 employees.

ACEC Colorado has been buoyed throughout its history by strong and steady leadership. Reimer, who has been with the Member Organization for three decades, came into her current role 15 years ago. She succeeded Sandy Donnel, whose own tenure dated to the early 1980s. And when Reimer retires in December 2021, Heidi Gordon, deputy director and COO for ACEC Colorado, will fill the role. "We are taking the necessary steps to have another seamless and successful internal transition," Reimer says.

Strong leadership has played a large part in the organization's success, Thomas says. "Marilen Reimer knows everybody, and she knows every issue," she says. "And Heidi will be that way, too. Having that continuity is key. Each state has different issues, so it's really critical to have someone who knows the industry and knows the players."

LANDMARK PROJECTS

ACEC Colorado recognizes innovative and high-profile projects completed by Member Firms throughout the state with its Engineering Excellence Awards. This year, Merrick & Co. was recognized for its work on the South Platte River Run Park in Sheridan, Colorado. Among other features, the project resulted in the creation of an innovative fish habitat that meets flood-control requirements.

"Each state has different issues, so it's really critical to have someone who knows the industry and knows the players."

KARLENE THOMAS
PRESIDENT
ACEC COLORADO
CO-OWNER, PINYON ENVIRONMENTAL

"We're very conscientious about having that diversity in our membership and have to serve those members accordingly."

MARILEN REIMER
EXECUTIVE DIRECTOR
ACEC COLORADO

In 2019, the awards program recognized Muller Engineering for its work on an interchange in Golden, Colorado, that improved community connections and met regional mobility needs. The project replaced an at-grade, signalized intersection with a free-left modified diamond interchange featuring a city park and multiuse trails.

And in 2018, an award went to AECOM for its work on a long-term biological treatment facility for petroleum-contaminated soil in Rifle, Colorado. For that project, AECOM combined aerated static pile and biopile treatment technology in an innovative way, resulting in a treatment facility that converts contaminated soil into usable landfill cover.

"The importance of the Engineering Excellence Awards cannot be overstated," says Gray Clark, secretary-treasurer of ACEC Colorado and president of Muller Engineering. "The awards help us recognize the good work of our team members and demonstrate the importance of what we do to the next generation of civil engineers and to the public at large."

RAISING THE PROFILE OF ENGINEERING

Gordon, the deputy director and COO who will take the helm as executive director of ACEC Colorado in December 2021, has worked hard to enhance the public profile of engineers in the state. She led the effort to launch Colorado Engineers Week, has helped manage a scholarship foundation for aspiring engineers, and has actively pushed for ACEC Colorado members to be interviewed for podcasts, trade publications, and newspaper articles.

"I think it's important for a few reasons," Gordon says. "By getting a better understanding of what consulting engineers do, it helps elevate engineers with government officials and in the advocacy realm. But we're also interested in filling the pipeline. It's important for the public to understand that engineering is all around them and that it's about creative solutions."

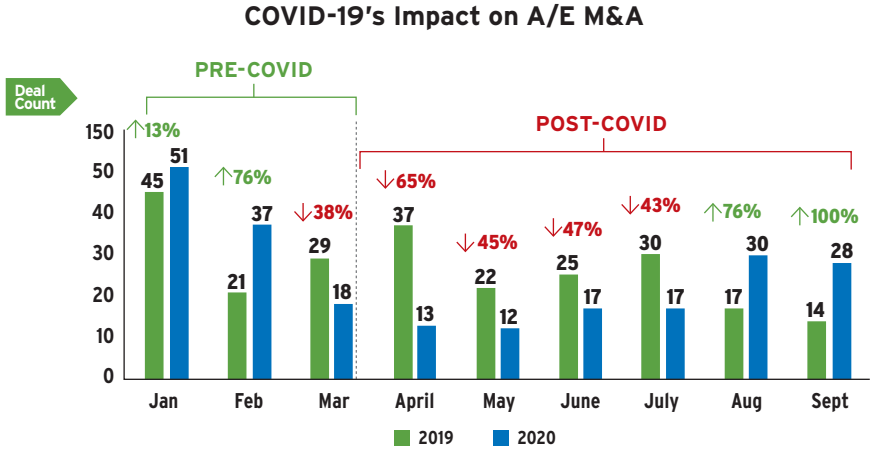
"If we as engineers aren't sharing high-quality information with the rest of our communities, we're not doing our job," Stolfus says. "I think that ACEC Colorado has done a really good job of working toward building those connections so we can do that more effectively." ■

Calvin Hennick *is a business, technology, and travel writer based in Milton, Mass.*

ACEC Deal-Makers Damn the Torpedoes, Go Full Speed Ahead

BY NICK BELITZ

As the COVID-19 pandemic held sway in the late spring and early summer of 2020, no one was quite sure how the pace of consolidation would change in the new reality of social distancing, video-conferencing, and remote working. While the world held its collective breath over the global outbreak, ACEC deal-makers paused to take stock of the situation, evaluated backlogs and active projects in their pipelines, and still saw opportunities for investment in engineering design and construction management services. While we saw a precipitous decline in the number of closed transactions in the early phase of the pandemic, the data indicates deal-makers simply took a breather for 90 to 120 days before getting back to business.



For context, Morrissey Goodale's data indicates 2019 saw a record-setting number of deals: 319 in the industry overall, as compared to 308 in 2018, and a paltry-by-comparison annual tally of 227 in 2017. Then we come to the disruptions of 2020, where we may compare monthly results from this year to the corresponding period a year earlier to evaluate the extent of the damage. In so doing, we first see deal-making activity down 38 percent in March 2020 and then a jaw-dropping—but not surprising given the circumstances—65 percent in April. Results remained depressed in May at a "mere" 45 percent down before a similar 47 percent year-over-year decline in June 2020, a month when only 17 deals closed. Deal counts held steady from June to July of this year, but then deal-makers rebounded in August, with deal closings a staggering 76 percent above the monthly total from August the year before. The latest data available for September at press time showed the number of closings again exceeding the same period last year by 46 percent. This late-summer barrage of activity puts the industry on track to finish 2020 within striking distance of 2019's record-setting mark.

Here are the drivers of recent deals we see based on the latest results:

1. Non-traditional deals are becoming more and more common. ACEC deal-makers are looking for ways to generate value beyond simply billing hours for dollars in the tried-and-true engineering fee-for-design model. That trend is very much alive when looking at the firms targeted by ACEC decision-makers that represent investments in technology-driven platforms apart from traditional engineering. As examples listed below, note **Thornton Tomasetti's** investment with ShapeDriver of Austria and Swarm of New York, both technology companies, and **Parametrix's** acquisition of Civil FX to expand its capabilities in augmented and virtual reality. And for cross-discipline deal-making with added international flair, see the acquisition by insurance solution provider Charles Taylor, based in London, of **SBSA, Inc.**, a full-service engineering and architectural firm.

2. Southern climes attract deals. Consistent with multi-year trends, states in the Sunbelt continue to draw investment by ACEC deal-makers. States from Florida to Arizona see a greater number of deals relative to the rest of the country on the strength of expectations of greater population growth and the need for more infrastructure investment and buildings of all types to serve the people. See acquisitions by **Baxter & Woodman** and **Bartlett & West** in Texas, **Terracon** in Arizona, and **Clark Nexsen** in Tennessee noted below as examples.

3. Intra-state deal-making on the rise. Despite the resurgence in consolidation in the time of COVID, we must acknowledge the pandemic kicked off a severe economic contraction. One hallmark of deal-making in recessionary times is the degree to which decision-makers transact deals with firms headquartered in the same state. These close-to-home acquisitions indicate a desire by parties on both sides to do a deal with firms that either operate in adjacent markets or offer complementary services but do so in generally the same locale. A deal closer to home means similar jurisdictions with familiar regulations, regulators, and an understanding of what it takes to get things done. Given the uncertainty surrounding the economy in 2020, it is no surprise to see several deals transacting between firms that share at least some of the same home turf. Note same-state deals by ACEC members **Ardurra Group** in Florida, **Schaumburg & Polk** in Texas, **Kleinfelder** in California, **Murraysmith** in Oregon, and **Bowman Engineering & Consulting**, also in Texas.

The Great Recession—the scars of which no doubt still linger in the psyches of engineering firm executives around the country and the world—resulted in a decline of annual deal-making of 15 percent from 2008 to 2009. So while it is not unexpected to see the M&A market reverberating from a macro-

economic slowdown, we are surprised to see the rapid return to deal-making just a few months removed from the onset of the pandemic. All indications are that 2020—despite the unprecedented challenges of the year—will turn out to be another strong year for engineering firm consolidation.

ACEC DEAL-MAKERS

SEPTEMBER 2020

Commercial interiors specialist **Wagner Zaun Architecture** (Duluth, Minn.) joined **LHB** (Duluth, Minn.) in a deal designed to strengthen Wagner Zaun's services for a broad range of customers. LHB is an ACEC member.

ACEC member **Clark Nexsen** (Virginia Beach, Va.) expanded into Tennessee through the acquisition of architecture, master planning, and interior design firm **Ken Ross Architects** (Johnson City, Tenn.).

ACEC member **Terracon** (Olathe, Kan.) built on its environmental planning, design, and resource specialists' depth in the Southwest with the acquisition of **Environmental Planning Group** (Phoenix).

Charles Taylor (London), a provider of services and technology solutions to the global insurance market, acquired **SBSA, Inc.** (Golden, Colo.), an ACEC member.

Technology company **ShapeDiver** (Vienna) is merging with SaaS platform **Swarm** (New York). The merger involves a direct investment by **Thornton Tomasetti** (New York) in ShapeDiver to accelerate the scale of the platform and better serve enterprise users in the AEC industry. Thornton Tomasetti is an ACEC member.

Global Infrastructure Solutions (GISI) (New York) announced its intent to link with construction management-for-fee firm **The LiRo Group** (Syosset, N.Y.), an ACEC member.

Leading public infrastructure engineering firm **Baxter & Woodman** (Crystal Lake, Ill.) expanded into Texas through its merger with water and wastewater specialist **AEI Engineering** (Houston). Both firms are ACEC members.

ACEC member **DeSimone Consulting Engineers** (New York) acquired **RRC Engineering** (Plainville, Mass.), a structural engineering firm specializing in the design of data centers.

Industry leader **Westwood Professional Services** (Minnetonka, Minn.) acquired prominent civil engineering and surveying firm **CVL Consultants of Colorado** (Englewood, Colo.), an ACEC member.

ACEC member **Ardurra Group** (Tampa, Fla.) acquired and merged with **Constantine Engineering** (Fort Walton Beach, Fla.), a multi-discipline engineering firm specializing in the water, wastewater, and public works markets.

ACEC member **Schaumburg & Polk** (Beaumont, Texas) acquired public infrastructure engineering specialist **BW2 Engineers** (Garland, Texas).

Civil engineering and land surveying firm **Bird+Bull** (Columbus, Ohio) joined consulting and construction services firm **V3 Companies** (Woodridge, Ill.), an ACEC member.

AUGUST 2020

ACEC member **Halff Associates** (Richardson, Texas) acquired **BESH** (Tavares, Fla.). BESH provides water, wastewater, public works, land and site development, and surveying services to private and public sector clients throughout Florida.

ACEC member **Haley & Aldrich** (Burlington, Mass.) acquired **Hart Crowser** (Seattle), adding 120 staff across nine offices in Washington, Oregon, Hawaii, and Guam.

ACEC member **Kleinfelder** (San Diego) completed an asset purchase of prominent environmental planning and permitting firm **Garcia and Associates** (San Anselmo, Calif.). Kleinfelder is backed by **Wind Point Partners** (Chicago).

ACEC member **Murraysmith** (Portland, Ore.) enhanced its water engineering capabilities with the acquisition of ground and surface water treatment expert **Odell Engineering** (Wilsonville, Ore.).

Employee-owned engineering, planning, and environmental sciences firm **Parametrix** (Seattle) expanded its visualization as well as augmented and virtual reality capabilities with the acquisition of **Civil FX** (Las Vegas). Parametrix is an ACEC member.

ACEC member **SEPI** (Raleigh, N.C.) acquired two planning and design firms: **The Mellgren Planning Group** (Fort Lauderdale, Fla.) and **Foley/Kolarik** (Palmetto, Fla.).

ACEC member **Atlas Technical Consultants** (Austin, Texas) entered into a definitive agreement to acquire **WesTest** (Lakewood, Colo.), a key provider of transportation-related materials testing and inspection services.

ACEC member **Waggoner Engineering** (Jackson, Miss.) acquired **Applied Engineering & Science Consulting** (Auburn, Ala.), a firm providing services in the disciplines of water, wastewater, asset management planning, environmental compliance and permitting, and stormwater compliance.

Davey Resource Group (Kent, Ohio), a subsidiary of **The Davey Tree Expert Co.** (Kent, Ohio), acquired certain assets of **TGC Engineering** (Sharon Center, Ohio). TGC is an ACEC member.

ACEC member **Bartlett & West** (Topeka, Kan.), a 100-percent employee-owned engineering, construction, and technology solutions firm, acquired environmental planning and transportation engineering firm **Civil Associates, Inc.** (Dallas).

ACEC member **Atlas Technical Consultants** (Austin, Texas) announced that it has entered into a definitive agreement to acquire **Alta Vista Solutions** (Oakland, Calif.), a key provider of transportation-related testing and inspection services across California and New York.

ACEC member **Civil & Environmental Consultants** (Pittsburgh) acquired multi-discipline civil engineering and land surveying firm **SITEC** (Dartmouth, Mass.). ■

To view the most up-to-date and "live" versions of the M&A heat maps, and to see who are the buyers and sellers in each state, go to www.morrisseygoodale.com.

Nick Belitz is a principal with Morrissey Goodale, LLC, a management consulting firm that specializes in the A/E industry and provides strategic business planning, merger and acquisition, valuation, executive coaching, leadership development and executive search services. He can be reached at nbelitz@morrisseygoodale.com.

Pressing 'Play' on Paused Projects

BY KAREN ERGER

After we watch all available episodes of a TV show, it can be a long wait for the next season to be released. When new shows are available, we might need to view a recap sequence or even go back and rewatch old episodes so we can pick up where we left off with our favorite characters and plots.

The COVID-19 pandemic was a surprise cliffhanger ending to many ongoing design and construction projects. When client/owners proceed with suspended projects, design professionals will need to get up to speed by "recapping" key elements of the project, so they can be ready for the twists and turns of this new "episode" in design and construction.

RECAP: THE CONTRACT

No TV series trying to capture a design professional audience would include a pilot episode about contract review, but this task is essential to understanding rights and duties going forward after project suspension.

Design professionals will need to determine whether the suspension of the project entitles them to equitable adjustments in schedule and compensation. The contract should also be reviewed for provisions addressing the design professional's responsibility for delay. The assistance of legal counsel who understand the design professional's business will be invaluable.

It will also be important to determine whether, and under what circumstances, the design professional may be entitled to claim additional services, including whether the client/owner's advance authorization is required. Notice provisions should be identified and followed to the letter.

RECAP: THE PROJECT

Even before the COVID-19 pandemic, pressing the "play" button on a paused project required a design team to review the status of the project and to take stock of changes that had occurred since it was mothballed, including scope, schedule, and budget; owner's objectives and design criteria; applicable laws, code, and regulations; availability of design professional staff; availability of subconsultants; environmental conditions; changes in technology; and availability of materials.

As projects restart in the wake of the pandemic, some of these factors will have special relevance. New regulations and recommendations related to COVID-19 will need to be considered, and we can expect that some of these will conflict with previously existing codes and practices. Awareness of COVID-19 risks may drive new project needs and design criteria, some of which will include sanitation needs, accommodation for social distancing, and initiatives to try to control viral spread through HVAC design.

Some of these newly necessary COVID-19 services may not be within the professional competence of design professionals. They will need to manage this risk by limitations and refinements to scopes of service, assigning these risks to consultants who are able to manage them (for example, industrial hygienists), and other means.

Karen Erger

RECAP: THE PROFESSIONAL STANDARD OF CARE

The impact of COVID-19 on the standard of care for design professionals is, in the words of former Secretary of Defense Donald Rumsfeld, a "known unknown."

Design professionals are required to exercise the professional skill, care, and knowledge that a reasonable design professional would have and use under similar circumstances, at the same time and place. It is reasonable to assume that design professionals will be held accountable for familiarizing themselves with the recommendations of the Centers for Disease Control and Prevention and other credible sources, and for responding to them in project design.

The challenge, of course, is that the state of knowledge about COVID-19 is ever-evolving. Design professionals will need to stay abreast of these developments and carefully document their efforts to conform their design to the then-current state of knowledge.

RECAP: COMMUNICATION AND DOCUMENTATION

Clear and timely communications with the client/owner about COVID-19 impacts to a project and documentation of agreed-upon plans for proceeding in the face of these unprecedented conditions will be essential.

The existence of a crisis, the desire to get projects moving, and a feeling of "we're all in this together" may tempt some design professionals to give short shrift to client communications and documentation, but these risk management tools are a proven preventive of misunderstandings, unpleasant surprises, and professional liability claims. ■

Karen Erger *is senior vice president and director of practice risk management at Lockton Companies. She also is a member of the ACEC Risk Management Committee and can be reached at kerger@lockton.com.*

On the Move

New York City-based **STV** announced the following appointments: **Gregory A. Kelly** was named president and CEO and is based in New York. He most recently served as CEO of Heritage Construction & Materials, and previously served as president and CEO of WSP USA. Former ACEC Chairman **Jerry Stump** has joined **STV** as senior vice president and Eastern region manager of the firm's nationally renowned Transportation & Infrastructure (T&I) Division. He will oversee business operations and strategic initiatives for the firm's Northeast, Mid-Atlantic, Southeast, and Midwest regional offices. Stump most recently served as president and CEO of Volkert, Inc.

Alyson Watson has been named the new CEO of Portland, Maine-based **Woodard & Curran**, succeeding **Doug McKeown** effective Jan. 1, 2021. McKeown served as CEO for 14 years and will take on a new role with the firm and continue as board chair. Watson currently serves as the firm's municipal west strategic business unit leader and is based in the San Francisco office.

Bismarck, North Dakota-based **KLJ Engineering** appointed **Barry Schuchard** the new interim CEO, effective Jan. 1, 2021, following the resignation of CEO **Dean Anagnost**, effective Dec. 31, 2020. Schuchard has been with the company since 1983 and most recently served as chief value officer. Anagnost began his career with KLJ in 1991 and has held multiple leadership roles, including serving as the company's CFO prior to his time as CEO.

Chris Pesnell has been promoted to president of Pearl, Miss.-based **Maptech, Inc.**, succeeding **Chris King**, who retired in October after 41 years, including the last 23 as president. Maptech, a survey and mapping firm formed in 1977, is a wholly owned subsidiary of Neel-Schaffer Engineers & Planners, the parent company of Neel-Schaffer, Inc. Pesnell previously served as vice president for the past 12 years.

Tom Price has been named executive vice president and COO of San Francisco-based **T.Y. Lin International Group** and the Global Infrastructure pillar of Dar Group, the firm's parent company. Price spent nearly 30 years with CH2M HILL/Jacobs, where he most recently served as senior vice president of global growth, strategy, and solutions. He is based in the Sacramento, Calif., office.

LAUREN WAKEFIELD PHOTOGRAPHY

Gregory A. Kelly

Jerry Stump

Alyson Watson

Barry Schuchard

Chris Pesnell

Tom Price

Statement of Ownership, Management, and Circulation

Engineering Inc. (USPS 0007395) is published (quarterly) four times a year by the American Council of Engineering Companies.

The mailing address of the publication is 1015 15th Street, NW, 8th Floor, Washington, D.C. 20005. The mailing address of the publisher is 1015 15th Street, N.W., Washington, D.C. 20005-2605. The publisher is the American Council of Engineering Companies, the editor is Andrea Keeney, and the managing editor is Matthew Wright. The owner of the publication is the American Council of Engineering Companies.

There were 13,031 copies of *Engineering Inc.* published for Summer 2020 issue; the average for the preceding 12 months was 23,819. The paid/requested outside county mail subscriptions for the Summer 2020 issue were 11,993; the average for the preceding 12 months was 22,586.

The other classes mailed through USPS for the Summer 2020 issue were 125; the average for the preceding 12 months was 119. Total distribution for the Summer 2020 issue was 12,494; the average for the preceding 12 months was 23,448. Copies of *Engineering Inc.* that were not distributed during the Summer 2020 issue (office use, leftovers) was 537 and the average number of copies not distributed during the preceding 12 months (office use, leftovers) was 371. The percent paid/requested circulation for the Summer 2020 issue was 96%. The average percent paid/requested circulation for the preceding 12 months was 96%.

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In December, ACEC Coalitions offered a complimentary web seminar titled ***2020 Year in Review – Legal Issues for Engineers***. In this timely session, Kent Holland highlighted legal decisions of importance to engineers recently rendered by courts around the United States, as well as updated participants on often-recurring legal issues in the practice of engineering.

Discussions focused on typical business concerns such as getting paid, payment provisions, and managing client expectations. Participants gained a broad perspective on a range of legal issues they should be alert to, the ability to spot potential problem situations, and a better understanding of when professional advice may be needed.

The session was recorded and is available free on demand to Coalition members: **http://bit.do/2020-Legal-Review**

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