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"Congress and the president could help mitigate the economic downturn and put the nation on the road to a stronger recovery by approving a long-term, robustly funded transportation infrastructure investment package early in 2021."

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Cover photo courtesy of Idaho Transportation Department

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**Transportation Builder®**

“Transportation Builder”(TB) is the official publication of the American Road & Transportation Builders Association (ARTBA). We bring together all facets of the transportation construction industry to responsibly advocate for infrastructure investment and policy that meet the nation’s need for safe and efficient travel. ARTBA also offers value-added programs and services providing its members with a competitive edge. TB is the primary source of business, legislative, regulatory, safety and economic news that matters most to transportation development professionals.

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November-December 2020
On behalf of my colleagues, I want to thank ARTBA’s members and other advertisers who supported Transportation Builder (TB), our “Smart Design & Construction” supplement, annual Leadership Directory & Buyers’ Guide, and nearly 70 issues of the digital Washington Newsline during 2020.

We all know what an extraordinarily challenging year it has been. And there no doubt will be roadblocks in 2021 for overcoming the COVID-19 pandemic and securing a new surface transportation infrastructure investment bill. But, as an advocacy organization, we remain optimistic about policy successes and the industry’s overall future.

We can help build your brand awareness next year by showcasing your products, services, and ideas before ARTBA’s more than 8,000 public and private sector members, the new administration and Congress, and state and local transportation agencies.

ARTBA offers several options on its print and digital platforms, including traditional display advertising and an “advertorial” format, which looks like a regular story but gives you more editorial control of the content. We are ready to work with you to find the solution that meets your budget and needs, including design help. See the story on page 23 of this issue about our video production services.

Our interactive, online Buyers’ Guide is regularly updated and available for new advertising at any time during the year. It’s found under the “News” tab at artba.org. While there, please explore our 2021 Media Kit, which provides rates and other details about advertising in TB and Newsline.

We are always interested in story proposals from our members about innovation, technology, and projects that promote ARTBA’s vision of “a dynamic transportation network that enriches American life.” We will publish a new “Smart Design & Construction” supplement in the July/August 2021 TB. It’s not too soon to start thinking about stories. Content can appear first in Newsline, then republished in the supplement; or first in print, and later online.

For more information on editorial, contact me at: mholan@artba.org and for advertising, contact Dave Weidner at: adsales@artba.org.

We wish you a safe and prosperous New Year.

Mark Holan
Editorial Director
mholan@artba.org

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Leadership: ARTBA, Ike & the Interstates

Dwight D. Eisenhower believed the road to U.S. economic prosperity and strong national defense began with infrastructure investment.

That was one of the key takeaways from granddaughter Susan Eisenhower’s Oct. 21 presentation at ARTBA’s National Convention, where she promoted her new book, How Ike Led: The Principles Behind Eisenhower’s Biggest Decisions.

“He truly believed that infrastructure is the fundamental backbone of our national economy, and our economy is fundamental to our national security,” Susan said.

That line struck me because of the interesting parallels with ARTBA’s founding, our leadership role on transportation issues during the past 120 years, and our mission today.

Leaders serve causes greater than oneself, which Eisenhower demonstrated as Supreme Allied Commander in World War II and as a two-term president in the 1950s. ARTBA embodies the same quality. When our founder, Horatio Earle, articulated in 1902 a vision of a federally-led “Capital Connecting Government Highway” that would connect “every state capital with every other state capital and with the United States’ capital—Washington,” he had top of mind economic development, safety and national defense.

Eisenhower famously experienced America’s nascent road network as a lieutenant colonel during his 1919 U.S. Army-led cross-country convoy from Washington to San Francisco. The long slog, with its muddy quagmires and frequently damaged vehicles, took 62 days. Susan writes it was a “tortuous” experience. Eisenhower’s subsequent exposure to the German Autobahn during World War II solidified his views on the need for a similar system in the U.S.

Therefore, it’s no surprise Eisenhower fully embraced Earle’s vision to create what became the Interstate Highway System. And it’s no surprise the American Road Builders Association (ARBA), as we were then known, and its volunteer leaders worked with Ike’s administration to make the 1956 Interstate system law a reality and championed the creation of the Highway Trust Fund to finance its construction. Our members then set about the massive undertaking of designing and building the system and continue to help manage it to this day.

Ike, as soldier and statesman, was a “strategic rather than operational leader,” Susan says. He always kept in mind the entire enterprise. That’s also true of ARTBA in the strategic pursuit of its transportation investment mission. We cover the entire construction marketplace, from legislative, regulatory and legal advocacy to modern-day value-added tools and services such as our economics dashboards and safety training programs.

The final leadership lesson Susan Eisenhower learned from her grandfather is as simple as it is profound: “Leave the place better than you found it.” That view is synergistic with the new vision statement articulated in the June 2020 ARTBA Board-approved strategic plan: “A dynamic transportation network that enriches American life.” An opportunity to achieve as much begins anew in the Nation’s Capital this January.

My best wishes for a safe and healthy New Year!
MAX developed the World's First battery powered rebar tying tool in 1993. Since then, MAX rebar tying tools have revolutionized rebar tying work on bridge decks, roads, tunnels, in airports and a variety of other jobsites all around the world. MAX's 200 R&D engineers have continued improving upon their proprietary technology, which led to the invention of the TWINTIER®, a dual wire feeding rebar tying tool. TWINTIER® technology allows the tools to tie 4,000 ties per charge, while delivering just the right amount of wire for greater productivity and cost savings. These innovative features make TWINTIER® the most innovative and efficient rebar tiers in the industry. Today, MAX manufactures a full line of rebar guns that can tie between mesh up to #9 x #10 rebar.
Preparing for 2021 with the Benefit of Hindsight

“The farther backward you can look, the farther forward you are likely to see.”

–Winston Churchill

The peaceful transition of power is a hallmark of American democracy, signifying fresh faces and sometimes fresh perspectives to tackle long-standing challenges. As the nation prepares for the Jan. 20 transition, our own preparations begin with an assessment of the recent past in search of lessons and insights on how to impact the future.

Four years ago, we inaugurated a president who elevated the need for infrastructure renewal to unprecedented heights. Viewed as the consummate outsider, Donald Trump drew praise and support from both Republicans and Democrats alike for his calls for infrastructure investment. Outside the Beltway, Wall Street analysts forecasted dramatic performance improvements for all manner of infrastructure firms.

Unfortunately, some critical steps between anticipation and actualization were overlooked along the way. President Trump’s advisors produced a comprehensive plan to achieve his $1.5 trillion infrastructure goal that was largely based on private sector and non-federal money. But that vision never gained traction on Capitol Hill, where bridge building and consensus are necessary for progress.

Even though President Trump’s regulatory savvy led to streamlined project delivery regulations, a wave of new infrastructure projects to utilize these reforms failed to materialize.

Now, as enthusiasm builds for major infrastructure legislation in 2021, we are wise to heed Winston Churchill’s advice about how the learnings of the past can enhance the future.

President-elect Joe Biden touted bipartisan credentials during his campaign, and with a long career in the Senate, these relationships on both sides of the aisle certainly may help advance policy objectives. As vice president, Biden also oversaw implementation of 2009’s economic stimulus bill. While that measure certainly prevented a bad situation from getting worse, the total experience reinforces that short-term plans often yield short-term results.

When Congress turns its focus from COVID-19 relief to economic recovery, this lesson should prove particularly instructive.

Looking forward, we know the changeover of the executive branch does not mean our infrastructure efforts will start at square one. Roughly 470 of the 535 members of the House and Senate will return for another term, including the key congressional players who crafted robust multi-year highway/transit investment proposals in 2019 and 2020.

In addition to that substantial foundation, the nation and its leaders know economic renewal is essential. While Republicans and Democrats disagree on policy prescriptions more often than they agree, there is little doubt about infrastructure investment’s overwhelmingly bipartisan track record. Those realities dovetail with the Sept. 30 expiration of federal highway and public transportation spending. This means Congress and the new President will need to act in some form.

Our challenge—and opportunity—is to work to ensure that congressional action is a springboard to restart the nation’s economy as opposed to a backward embrace of the status quo. After a year of upheaval, we are committed to making 2021 a year of consequence and progress. Buckle up.

Dave Bauer
GOMACO’s full line of concrete slipform paving equipment is leading edge technology. Our equipment is available with GOMACO Remote Diagnostics (GRD) for machine monitoring, software upgrades and troubleshooting. Paver accessories can now be managed with the Navigator software and control screen from ground level with simple, push-button control. The GSI’s (GOMACO Smoothness Indicator) on-the-go surface smoothness monitoring capabilities provide instant feedback as you pave to help ensure smooth paving results and ultimate rideability.

Which do you need on your job site? Give us a call today, we look forward to visiting with you about your upcoming paving projects and discussing solutions to make your operation more competitive and profitable in today’s challenging market conditions.
Shawn Blubaugh died doing a job he loved.

He was working for the Ohio Department of Transportation when he was struck by a piece of heavy equipment in a work zone and killed instantly. He left his family, including daughter Mashawn, behind.

Fortunately, the ARTBA Transportation Development Foundation was there to help her via the Lanford Family Highway Worker Memorial Scholarship fund. A childhood education major at Kent State University in Ohio, Mashawn, 21, is on the cusp of achieving her goal.

The scholarship truly makes a difference in the lives of worthy students. Yet, the Foundation has strived to provide other impactful programs since its founding in 1985.

At its core, the Foundation aims to:

- Protect the safety and health of workers and motorists via training that reaches up to 8,000 industry professionals every year;
- Develop the next generation of transportation construction leaders;
- Put a national spotlight on industry excellence and leadership contributions through its awards and recognition programs; and
- Build a better future for young adults like Mashawn.

**We need your help to ensure this continued success.**

As part of the Foundation’s 35th anniversary, I am respectfully asking you to make a tax-deductible $3,500 gift before the end of 2020. If you can do more, even better. It can be a corporate or personal donation, or combination of both.

With your donation, we will continue to deliver services such as the National Work Zone Safety Information Clearinghouse, our safety certification and certificate training courses, the legacy-building Hall of Fame, and Industry Leader Development Program. It will also support ongoing efforts to build a more robust online and fundraising presence by putting a human face on the outcomes of Foundation initiatives.

Contact ARTBA Foundation Executive Director Matt Jeanneret at mjeanneret@artba.org or 202.683.1002 with questions about your donation.

In the current pandemic, your contribution, regardless of size, means more than ever.

Together, let’s continue making a difference. Thanks in advance for your generosity.

Best wishes for a safe and peaceful New Year.

“Finishing college and becoming a teacher like the ones who have supported me has always been my goal, and this scholarship is helping to make it possible.”

—ARTBA Scholarship Recipient Mashawn Blubaugh
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ARTBA Market Tools Provide Clarity During Fog of Pandemic

The U.S. death toll from COVID-19 surpassed 300,000 as this issue went to press. Tens of millions have been sickened or tested positive for the virus. The pandemic had wide ranging effects on major sectors of the U.S. economy. Stay-at-home orders, the rise of “Work from Anywhere,” lower sales tax revenues, less driving, and decreased demand for transit and airline travel have had negative impacts on state transportation revenues. At the same time, Congress approved a one-year funding extension for the federal highway and public transit programs instead of passing a long-term infrastructure investment package.

These factors present unique challenges to ARTBA Chief Economist Dr. Alison Premo Black, the architect of the association’s annual U.S. transportation construction market forecast. Dr. Black discussed the pandemic’s impacts on the transportation construction market in 2020 and 2021 with ARTBA Vice President of Public Affairs John Schneidawind after the Dec. 10, 2020, release of the annual forecast.

TB: What did ARTBA do to keep its membership informed about the impacts of the pandemic on the marketplace?

APB: We knew they could not wait for an annual forecast. Information needed to be updated on a regular basis. In March, we began providing member-only reports, usually updated every few days or within a week, on the status of each state’s transportation construction projects and how much the pandemic was responsible for a decrease in aggregate transportation investment. I focused on revenues and the market impact, while my colleague Rich Juliano, general counsel and managing director of the Contractors and P3 divisions, tracked developments in how states were dealing with safety requirements, regulations, and worker protections.

These valuable reports helped our members and state partners understand what was going on across the country and provided tangible and real-time information they could apply to their businesses and use when talking to project owners and state and local officials.

TB: What has been the impact of the COVID-19 pandemic on state transportation programs in 2020?

APB: Through November, 18 states and 25 transportation authorities have cancelled or delayed projects totaling $12 billion in revenue planned for a multi-year period. We have also had several major counties and local areas delay transportation ballot initiatives.

All states are experiencing revenue shortfalls, but the program impacts vary widely. Some states are cutting or delaying projects, while others are scaling back on operations. Another approach is to issue bonds or use rainy day funds, General Fund transfers or other revenues to try and preserve capital programs in 2021.

TB: Has the pandemic led to a re-evaluation in the mission of ARTBA’s economics team?

APB: The mission of our economics and research team is to augment ARTBA’s advocacy efforts pursuant to our strategic plan and provide market intelligence to our members. We are always looking for new ways to achieve this goal. In January, even before the pandemic hit, we introduced the subscription Transportation Construction Market Intelligence Service. This customizable dashboard tool puts market insights and clarity at a user’s fingertips.

See Forecast, 14
Public & Private Highway, Street Construction

• The real value of public highway, street and related work by state DOTs and local governments—the largest market sector—is expected to decline $3.1 billion, or 4 percent, to $74.5 billion in 2021.

• Work on private highways, bridges, parking lots and driveways will decrease from $72.3 billion in 2020 to $66.4 billion in 2021.

• Based on recent contract award data, the market should experience growth in half of the states.

Bridges & Tunnels

• The pace of bridge and tunnel work is expected to decline 2 percent in 2021 after steep declines in 2020.

• The market is forecast to be $21.7 billion in 2021 and work is expected to be up in about half the states.

Light Rail, Subways, & Railroads

• Public transit and rail construction will decline one percent from $24.5 billion in 2020 to $24.2 billion in 2021.

• Investment by private Class 1 freight railroads is expected to remain flat at $13.3 billion.

• Subway and light rail investment is forecast to decline slightly from $11.2 billion in 2020 to $10.9 billion in 2021.

Airport Runways & Terminals

• The value of airport construction, including terminals, runways, and related work, is expected to decline from $24.8 million in 2020 to $20.5 billion in 2021, or 17 percent, before resuming growth in 2023 and beyond.

• After growing 4 percent in 2020, airport terminal and related work, including structures like parking garages, hangars, air freight terminals and traffic towers, is expected to decrease from $18.9 billion to $15.8 billion.

• Runway work is forecast to decline from $5.7 billion in 2020 to $4.8 billion in 2021.
Another example was the June release of the first-of-its kind dashboard tool highlighting the benefits of federal highway investment. It provides the American public and elected officials a clear look at how and where each state or congressional district invests its federal transportation tax dollars.

**TB:** So, what’s the bottom line on the 2020 marketplace?

**APB:** In March, we were concerned projects across the country would be shut down, but 2020 has become a record year for transportation construction work. ARTBA estimates highway work in 2020 will have increased 8.4 percent—and this was right in line with our forecast from last year. We expected 2020 to be a good year before the pandemic—the fact that work could continue in such a challenging environment is a testament to the dedication and perseverance of our industry.

Subway, light rail, airport terminal and runway construction, and port and waterway work all experienced real growth, too. The one exception has been bridge and tunnel work, which we project will decline 20 percent. This reflects some changes in that market—over the last few years states have been focused on smaller investments and many major projects, and state programs have been completed.

**TB:** What’s your outlook for 2021?

**APB:** In 2021, transportation work will slow as some states pull back on getting as many new projects in the pipeline. We forecast in 2021 a 4 percent drop in spending on highway construction, with a 1.5 percent decrease in spending on bridge construction and repair—all being driven by broader COVID-19 related economic slowdown.

We forecast a decline in subway and light rail work (-2.8%), and airport terminal and runway construction (-16.7%). Class 1 railroad investment should be steady and a slight increase in port and waterway construction (+3%) is likely.

**TB:** What major factors will influence this forecast?

**APB:** We expect that the revenue picture will be mixed in the early months of 2021 as some states continue to grapple with lower travel and demand for transportation services. While the extension of the federal surface transportation program law to Sept. 30 will provide stability for state highway programs, funding levels are flat and will not provide significant growth. Some states will find a way to preserve capital programs, but others will pull back or may need to make mid-year adjustments. Given those two dynamics we expect the market will decline overall in 2021.

**TB:** What else could help the transportation construction sector in 2021?

**APB:** Congress and the president could help mitigate the economic downturn and put the nation on the road to a stronger recovery by approving a long-term, robustly funded transportation infrastructure investment package early in 2021. Political will and bipartisanship are the keys to getting it done.
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Using temporary concrete barrier to separate directional traffic on this project would have restricted traffic to a 3/2 pattern. Instead, The Road Zipper System kept three lanes open in the peak direction at all times, saving $30 Million in user delay costs.

“This system also allowed us to save millions of dollars in temporary pavement costs because we didn’t have to add additional lanes.”

- Robert Ranck, Jr., MDOT Region Manager

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New Mexico DOT Takes the On Ramp to E-Construction

By Delane D. Baros
Delane.Baros@state.nm.us

The New Mexico Department of Transportation (NMDOT) has begun its first e-Construction project, a nearly $15 million, full-depth reconstruction of a 2-mile stretch of Interstate 40 east of Gallup. The roadwork is scheduled to begin in spring 2021, and finish within six months.

“This project promotes innovation and will lead to efficiencies in construction as well as help us drive cost saving initiatives,” said Michael Sandoval, the agency’s state cabinet secretary. NMDOT joined ARTBA this past September.

E-Construction is the collection, review, approval, and distribution of highway construction contract documents and plans in a paperless environment, according to the Federal Highway Administration’s (FHWA) Every Day Counts (EDC) program. The New Mexico project strives to meet the criteria of the current EDC-6 iteration for converting paper-based materials ticketing systems and as-built plans into electronic workflows and digital as-builts to enhance the accessibility of highway project data.

The success of the New Mexico project requires a committed partnership between the public agency and its private sector partners and contractors. NMDOT is using Autodesk BIM360 for document control and communications between the project manager, design team, and the contractor on change orders or other issues during construction.

NMDOT engineers have modeled and uploaded a 3D representation of the roadway using Autodesk Civil 3D during the bidding process. The model used mathematical data sets that enable users to extract and load the information onto onboard computer systems for Automated Guidance Machines (AGM). The AGM uses satellite technology to triangulate between base and rover stations in the 3D model to construct the roadway material lifts and profile grade.

NMDOT outlined e-Construction activities through its Notice to Contractors. The agency mandated utilization of AGM survey equipment specifically through Trimble, an ARTBA member, including the company’s Trimble Business Center and Access software, and Base/Rover equipment for AGM. The state agency has mandated use of the Sunnyvale, California-based firm’s products on various aspects of its projects for at least five years.

Now, technology will touch and determine all elements of the I-40 project, including the precise locations and elevations of the material layers, sub-grade, base course and hot-mix asphalt of the 16-18-inch depth of the interstate.

“The project really does aspire to be fully digital, from design through construction, digital construction technology enables detailed views of all phases of a project” said Trimble’s Patrick Holtz, who calls himself the firm’s “digital transformation evangelist” to state DOTs. “E-Construction is all for naught if things go back to paper somewhere in the process.”

NMDOT has outlined the contractual electronic data seal, certifying all files were completed in accordance with the 2019 edition of the Specifications for Highway and Bridge Construction and the 2019 Standard Drawings. The agency provided a link to access and download design data files from the 3D roadway design model.

While e-Construction is new for New Mexico, other states have been blazing the digital trail. In May 2019, NMDOT engineer Greg Clarke and other colleagues visited Utah DOT, which hosted a peer exchange on technology transfer. “They were like a mentor,” Clarke said.

NMDOT is committed to providing quality construction projects, while improving efficiency through this modern innovative delivery system. The agency anticipates tremendous cost-savings utilizing e-Construction, including those associated with printing time, paper costs and use, and document storage.

Delane D. Baros is a public information officer at New Mexico DOT District Six.
ARTBA Welcomed These New Members in 2020

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- The Transtec Group
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- Venable
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- Western Systems

To learn more about ARTBA membership, please contact:
Senior Vice President of Strategic Engagement Allison Klein, aklein@artba.org
Senior Program Manager/Member Services Krystal Taylor, ktaylor@artba.org

*List current as of Dec. 15.
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For more information, contact Robinson Vasquez at rvasquez@artba.org or 202.289.4434
Donald Trump's 2016 presidential campaign promises about reducing federal regulatory burdens didn’t get as much attention as building a border wall or forging new trade deals. Once elected, however, Trump quickly began to issue executive orders and rules that fundamentally altered the way federal agencies interact with regulated industries, including transportation design and construction. ARTBA leveraged the Trump administration’s focus on regulatory reform as an opportunity to remove roadblocks that for too long stymied projects and added costs. Today, many of those burdens have been lifted.

One of Trump's first executive orders directed federal agencies to repeal two existing regulations for every new rule created. Another order implemented “One Federal Decision,” which set time limits and required a single document for federal environmental reviews. The President also issued an ARTBA-supported executive order directing the Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (Corps) to repeal the Obama administration’s “waters of the United States” (WOTUS) rule.

On WOTUS, EPA and the Corps repealed the measure and replaced it with the “Navigable Waters Protection Rule” (NWPR), which regulates federal waters in a manner that does not cover most roadside and highway ditches. Additionally, NWPR requires the government—not the permit holder or private landowners—to prove it has jurisdiction.

Other Regulatory Relief
There was more administration-ordered up regulatory relief, including major changes to the National Environmental Policy Act (NEPA), federal hours of service rules, and the way agencies issue and store guidance documents.

On NEPA, the President’s Council on Environmental Quality (CEQ) promulgated the first updates in more than 40 years. Several ARTBA priorities were among the reforms, including timelines and page limits for environmental documents and greater opportunities for “lead agencies” to set schedules for project reviews.

The Federal Motor Carrier Safety Administration issued new rules granting much needed flexibility under federal hours of service rules for transportation construction workers. The updates increase flexibility in deploying drivers who spend most of their day waiting in queues for loading and unloading materials, delivering construction equipment and helping with other project tasks. This will help contractors working on critical projects, such as accelerated bridge construction schedules.

Finally, Trump reformed the way guidance documents are created by federal agencies and made available to the public. ARTBA raised concerns about insufficient public input into the guidance process and such documents improperly having the force and effect of federal regulations. New policies under the Trump administration answered these concerns by allowing the regulated community to comment on significant guidance documents before they are issued, thereby establishing a formal petition process where the public can ask for an existing guidance document to be modified, withdrawn or reinstated and ensuring guidance documents are developed with appropriate review and are accessible to the public. Agencies have also been directed to have searchable databases of all active guidance accessible to the public.

Looking Ahead
Many of the accomplishments of the Trump administration are likely to be challenged by President-elect Joe Biden. Pursuant to its strategic plan, ARTBA will fight to advocate for reforms that balance the need for sensible regulation with the ability to efficiently build transportation improvements.

We will also continue to look for opportunities to work on regulatory issues with the new administration.

Nick Goldstein is ARTBA’s vice president of regulatory and legal issues.
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Video production during a pandemic is not a road well-traveled, at least for associations.

As COVID-19 shut down major parts of the U.S., limited travel and restricted many in-person gatherings, we knew the landscape of how national, state and local associations communicated to their members had shifted dramatically.

Over the years, ARTBA has continually strived to use video to share the personal stories and successes of its members, including the incoming chairman. We’ve put on our boots, hard hats, and safety vests at heavy highway and bridge construction sites. We hit the Potomac River in D.C., at the crack of dawn in a small motorboat to shoot champion rower Bill Cox as he prepared for his next competition. We set sail with Nick Ivanoff as he captained his boat along the Long Island Sound in New York. We visited western Pennsylvania with Matt Cummings as he hit the open road on his motorcycle. And in summer 2019, we walked the grounds of current chairman Steve McGough’s alma mater, Texas A&M University.

For its national convention, ARTBA prepares an annual chairman’s report highlighting the key achievements of the previous year as required by our bylaws. We typically visit the headquarters of the current chairman for this video shoot. With ARTBA staff travel limited, a plane ride for several of us to Steve’s HCSS offices was not in the cards.

Fortunately, with a little creative thinking, collaboration, teamwork from multiple remote locations and innovative use of technology, we developed a creative and highly effective solution to the challenge at hand.

We recognized early on that a simple computer screen recording of an online conversation would not suffice because internet bandwidth is unpredictable and can lead to inconsistent video and audio quality. If you’ve witnessed lost audio and other glitches in virtual meetings or television newscasts since the pandemic hit in March, you have a sense of what can go wrong.

For this year’s chairman’s video report, the marketing department at HCSS, the construction software firm where Steve serves as president and chief financial officer, provided the equipment at its Sugar Land, Texas, headquarters. Senior Video Producer José Barboza delivered the onsite production services and video streaming. One camera was set in front of Steve at the same eye line as his laptop webcam, and one camera positioned behind him so that the viewer could watch him speaking on a Zoom call.

Two more cameras were positioned at ARTBA Senior Vice President of Strategic Engagement Allison Klein’s home in Long Island, N.Y., to facilitate her questions of Steve. This approach allowed for cutaway shots and visual relief. Her husband, Adam, a media and communications professor at Pace University, willingly did double duty and stepped in as an additional cameraman.

See Video, 24
I directed the four-camera shoot in real time from my home in suburban Virginia.

A seasoned veteran after seven months on Microsoft Teams and Zoom Video Communications calls, and other virtual platforms, Steve was comfortable on camera. We easily shot it in one take. We added one more just to be safe.

The production required paying attention to quite a few details to ensure shot continuity and quality, while at the same time keeping a personal, one-on-one feeling. I spent two days editing the conversation video and incorporated supporting footage and visuals from the past year.

The video debuted for the hundreds who logged on at ARTBA’s virtual national convention in October. We also subsequently previewed it for hundreds more at all our regional meetings. You can watch it and see our other videos on the ARTBAMedia channel at YouTube.com.

The final product, a year-long story boiled down to an interactive 5-minute discussion, showcased the innovative approach we take to all our videos and the services—many of which are also available to ARTBA members. None of us knows fully yet what 2021 will bring regarding the pandemic or other communication challenges. Rest assured, the ARTBA team and our volunteer leaders will be ready with another creative and innovative video solution.

— Matt Moore is ARTBA’s creative director of video and interactive content. To find out more about our production services, contact him at mmoore@artba.org.
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How Construction Companies Can Begin Capitalizing on Innovation

As technological innovations continue to surface and present new opportunities, some construction companies might not know where they should focus first. Perhaps that is why, generally speaking, the construction industry lags behind many others on the technology adoption curve. However, with the right focus and strategic plan, even the smallest of construction companies can leverage some combination of today's technologies to make impactful gains in their businesses.

“Venture capital is already investing nearly $1 billion in technologies related to project and task management, robotics, design, building/project information, data and analytics, inventory and supply chain, financial management and equipment share,” says Gregg Schoppman, a principal with FMI Corporation. “You can't just stick your head in the sand and wait to see which ones will still be there a few months from now. Construction leaders have to challenge conventions themselves.”

Innovation is the Antidote to Workforce Challenges

If leveraged correctly, several innovations could actually attract better talent to the industry and help drive workforce performance:

• Autonomous equipment and vehicles
• Drones
• Building Information Modeling (BIM)
• Use of tablets for augmented reality
• Real-time data to provide true analytics and decision-making capability
• Telemetry on wearable devices to improve productivity, efficiency and safety
• QR codes on equipment and helmets to retrieve data like engine hours, when oil change is due, whether an employee went through certain safety training, etc.
• RFID tags welded into sections of steel to track material from fabricator to jobsite
• Non-traditional talent development like online learning and virtual reality

Overcoming a Culture of Complacency

As industries evolve, companies must evolve with them. The biggest obstacle to embracing innovation is complacency. As Schoppman points out, evolution and innovation really come down to a single word: accountability. When both leadership and employees are accountable for finding new, innovative ways to conduct business, evolution can occur. At the same time, there needs to be accountability with the implementation.

“It’s not good enough to think you’ll just try it and see what happens,” Schoppman cautions. “It’s important to challenge people to come up with new ideas and approaches. But people need the right training on how to make the right decisions. Then you can hold them accountable.”

Innovation Doesn’t Have to be Huge and Disruptive

In the quest to continue moving a construction business forward, Schoppman talks about four key strategies:

1. Executing the same way in the same market (this is complacency)
2. Executing the same way in a new market (likely requires innovation)
3. Executing a new way in the same market (requires innovation)
4. Executing a new way in a new market (requires lots of innovation)

For many construction companies, the innovative pursuit of new approaches and markets must be preceded by something Schoppman refers to as “company hygiene.” For example, Schoppman tells of a tilt contractor he once consulted with. After digging into the numbers, concrete snot on doorframes was costing the company several thousand dollars a year. After challenging employees to come up with an innovative solution, ideas were all over the board. A very simple, yet “innovative” idea was brought to the table: use blue painter’s tape and Visqueen to cover up the doorframes. That became standard work and went right into the company playbook.

Innovation, and that kind of innovation, puts a construction company on a path toward evolution and continued prosperity.
HOW CONSTRUCTION COMPANIES CAN BEGIN CAPITALIZING ON INNOVATION

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THE LAST TURN

Compiled by ARTBA’s Transportation Investment Advocacy Center

A Ranger Construction employee sprays away loose aggregates and screenings near the material feed bins and conveyor belts at an Ocala, Fla., asphalt manufacturing plant, with the reflection shimmering in the foreground. Ranger is a leading asphalt contractor and road construction company that owns and operates seven asphalt plants throughout its central and southeastern Florida market areas. Photo by Carl Thiemann, communications director of the Vecellio Group (parent company of Ranger Construction).

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