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Today, women are leaders of government transportation organizations at the local, state and national levels, women are CEOs of construction companies, and women serve as thought leaders in the industry.”

— Lisa Robert, Q&A, p. 38

In case you missed it...

People, projects and other transportation news

2016 P3 Entrepreneur, Project of the Year

Mitch Daniels and Plenary Group take top honors

The magic of the EPA’s benefit/cost analysis

The trivial temperature benefits of “climate” policies have been under-reported
TRANSPORTATION BUILDER®

“Transportation Builder (TB) is the official publication of the American Road & Transportation Builders Association, a federation whose primary goal is to aggressively grow and protect transportation infrastructure investment to meet the public and business demand for safe and efficient travel. In support of this mission, ARTBA also provides programs and services designed to give its members a global 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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July/August 2016
Get out the vote

As we reach mid-August, the summer daylight is growing shorter and this year’s critical national election campaign, which began more than a year ago, is drawing closer.

Our cover story on “what’s a stake” on Nov. 8, written by ARTBA’s government affairs team, begins on page 26. ARTBA President & CEO Pete Ruane also discusses “why elections matter” on page 10.

Please make sure to encourage all of your employees to register and vote this fall. Their participation and yours will matter in what are expected to be many close races, plus several statewide transportation-related referendums, such as the one in Illinois, reported on page 32.

We also feature a story about the delegation of legislative powers to the Environmental Protection Agency, which has allowed for “ideological game-playing” under the disguise of cost/benefit analysis. See page 34.

The 14th annual installment of our “Through the Lens” photo compilation of the best transportation construction images as submitted by industry firms and public agencies is rescheduled to our November/December issue. Additional information about how to submit your pictures will be forthcoming in late September.

Finally, we are also developing for this year’s final issue a feature about transportation design and construction firms that recruit military veterans into their workforce. Please contact me at mholan@artba.org to share details about your company’s program.

Meanwhile, please enjoy this issue of TB.
A new frontier on safety

More than 38,000 people are killed or injured in and around U.S. transportation construction projects each year. The loss of life, alone, is traumatic and takes an enormous toll on families and employers. Couple this with the cost of these tragic incidents, and you quickly realize the cumulative impacts are staggering. Top transportation design and construction industry leaders have decided status quo safety training is not enough.

The theme for this year’s October 4-6 ARTBA National Convention, “Really Putting Safety First,” is no coincidence. Through ARTBA’s Foundation, these industry leaders will announce a game-changing safety program that has been nearly two years in the making.

The program goal: to significantly boost the hazard awareness and risk management skills of all transportation project professionals who are in positions of influence—from project inception through completion—to cause a decline in safety incidents.

Have we piqued your curiosity? Want to know how this will help your firm save lives and money? Make your plans now to be in Tucson to learn more.

You should consider sending your firm’s top safety professionals. I guarantee you their attendance will be a good investment of their time.

The convention also includes an exhibitor showcase for interested firms to highlight their safety products and services.

‘TOP GUN’ IN TUCSON

Also on tap for the meeting, Caterpillar Chairman & CEO Doug Oberhelman will deliver a speech about “The State of American Business.” The firm will host a special reception at their Tinaja Hills facility. The evening will be like “Top Gun” for heavy construction equipment! Attendees will get to see an exciting big machine demonstration that culminates with a colorful fireworks display.

And speaking of “Top Gun,” Anthony Bourke, a former F-16 fighter pilot, will kick-off the event by sharing his tips for ensuring peak performance.

Top transportation design and construction industry leaders have decided status quo safety training is not enough.

Of course, ARTBA senior staff will be on hand to provide a federal transportation policy and regulatory update, preview the November elections and transportation ballot initiatives, and share a sneak peek at the 2017 market forecast.

A MULTITUDE OF STARS

On the lighter side, the closing night features the Chairman’s Banquet and entertainment by veteran actor and performer Ron Pearson, whom Hollywood Reporter calls “a comic ball of fire.” Following the dinner, we’ll hold a reception under the stars, and have telescopes and professional astronomers on hand to give you “an exclusive tour of the universe.”

Visit www.artbanationalconvention.org to see the full program, sponsorship opportunities and register.

I look forward to seeing you in Tucson!

David Zachry
2016 NATIONAL CONVENTION

“REALLY PUTTING SAFETY FIRST”

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Register:
www.artbanationalconvention.org

See next page for program details >>
The spouse program and “activities on your own” can also be found at www.artbanationalconvention.org. For sponsorship opportunities, contact ARTBA Vice President of Meetings & Events Ed Tarrant at etarrant@artba.org or 202.289.4434.

ARTBA 2016 National Convention Schedule

Tuesday, October 4
Noon
Golf on Your Own
2 – 5:30 p.m.
Contractor Safety Awards Judging
4 – 5 p.m.
Golf Putting Contest (optional event)
Women Leaders in Transportation
Design & Construction Council
5:30 – 7 p.m.
Welcome Reception
7:30 – 10 p.m.
ARTBA Past Chairmen’s Dinner (invitation only)

Wednesday, October 5
7 – 8:30 a.m.
Buffet Breakfast
8:30 – 9 a.m.
ARTBA Overview & Introduction (first-timers)
8 – 9:30 a.m.
• Past Chairmen’s Meeting
• Joint Transportation Officials Division & Research & Education Division Meeting
• Industry Leader Development Council
• Council of State Executives
9:30 – 11 a.m.
• Contractors Division
• Planning & Design Division
• Traffic Safety Industry Division & Safety Insurance Committee
11 a.m. – Noon
Opening Session: Keynote with Anthony Bourke, F-16 Fighter Pilot and Expert on Leadership and Teamwork
12:15 – 2 p.m.
ARTBA Foundation Awards Lunch
2:15 – 3:45 p.m.
• Joint Materials & Services & Equipment Manufacturers Division Meeting
• Public Private Partnerships Division

Wednesday, October 5 (continued)
4:30 p.m.
Bus departs for ARTBA Political Action Team Reception at Tinaja Hills
5:15 – 7:15 p.m.
ARTBA Political Action Team Reception with heavy hors d’oeuvres
7:30 – 8:45 p.m.
Caterpillar Machine Demonstration & Fireworks Display at Tinaja Hills

Thursday, October 6
7:30 - 9 a.m.
Buffet Breakfast
8 – 9:30 a.m.
• Executive Committee
• Bridge Policy & Promotion Council
9:45 – 10:20 a.m.
General Session: State of American Business with speaker Douglas Oberhelman, Chairman & CEO, Caterpillar Inc.
10:20 – 10:30 a.m.
General Session: “Annual Meeting of Members”
10:30 – 11:45 a.m.
General Session: “Really Putting Safety First”
11:45 a.m. – Noon
Networking Break
Noon - 1 p.m.
General Session: Federal Legislative, Regulatory Review & 2017 Transportation Construction Market Forecast
1 – 2 p.m.
Lunch & Student Video Awards presentation
2 – 4 p.m.
Board of Directors
6 – 9:30 p.m.
Chairman’s Reception, Entertainment & Banquet
9:30 – 10:30 p.m.
Reception Under the Stars
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Why elections matter

Senator Jim Inhofe gets it.
The Oklahoma Republican, chairman of the Environment & Public Works Committee, told more than 125 guests at the June 29 Interstate Highway System 60th Anniversary event that “now is the time” to develop solutions to the Highway Trust Fund’s (HTF) permanent revenue deficit, and to press his congressional colleagues to take action.

Not at some undefined point during the five-year FAST Act, but now.

“You can’t sit around and do nothing until 2020,” Inhofe said during the event, hosted by ARTBA and the American Trucking Associations at the National Press Club in the Nation’s Capital.

That’s why this November’s elections are so important. ARTBA members and other transportation investment advocates need to make their voices heard: in the presidential contest at the top of the ballot; in 34 Senate races; all 435 House seats; a dozen governorships; at least four (as of Aug. 1) statewide transportation funding initiatives (Maine, New Jersey, Illinois and Nevada); plus other state and local offices and referendums.

At the national level, the next president and Congress will have a huge impact in deciding how to address many transportation-related funding and policy issues. So if you are not registered to vote already, you can do so at www.vote.usa.gov. Encourage your employees to do the same.

This election issue of “Transportation Builder” also has some useful information, beginning on page 26.

With members of Congress and other candidates for office campaigning hard this summer and fall, invite them to your company or job site. When you meet with them, connect the dots so they better understand the importance of strong transportation investment to job creation and economic productivity. Tell them you expect them to help fix the HTF if they are elected.

As for ARTBA and its volunteer leaders, we continue to do our part. Twenty members of the association’s “Project 2019 Task Force,” which was created earlier this year and is co-chaired by Caterpillar Group President Rob Charter and Martin Marietta President & CEO Ward Nye, participated in a July 13 meeting at Caterpillar’s headquarters in Peoria, Illinois, to begin developing the game plan for stabilizing the HTF and generating additional revenues to support expanded transportation improvements. Look for more details on the task force in coming months and at ARTBA’s Oct. 4-6 National Convention in Tucson.

The winner of the presidential race—regardless of whether it’s Hillary Clinton or Donald Trump—will preside over the scheduled 2020 reauthorization of the highway/transit program. Many of the contests for the House and Senate will also be wild rides this fall.

You have the power to shape the outcome in your state. So, get out and vote! And be ready to get to work in early 2017 helping ARTBA educate new members of Congress. As Senator Inhofe noted, when it comes to fixing the HTF, there’s no time to waste!
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Established in 2010, the ARTBA Transportation Development Foundation “Hall of Fame” honors individuals or families from the public and private sectors who have made extraordinary contributions to U.S. transportation development over their lifetime and demonstrated exceptional leadership.

Nominations for the 2016 class will be accepted until Sept. 16 in two categories:
• Transportation Design & Construction Industry Innovators
• Transportation Design & Construction Industry Leaders

To nominate someone visit www.artbahalloffame.org or contact ARTBA’s Eileen Houlihan at 202.289.4434.
IN THE NEWS

>> Federal Highway Administration announced 11 new technologies and practices in the fourth round of its Every Day Counts, or EDC-4, program. FHWA will help transportation agencies and stakeholders adopt the innovations in 2017 and 2018.

>> The Massachusetts Department of Transportation and Massachusetts Bay Transportation Authority worked together for the first time to create a $14.8 billion, five-year Capital Investment Plan, approved June 21. … The $6 billion makeover of Interstates 4, 75 and 275 in west central Florida, known as the Tampa Bay Express, won final approval June 22.

>> Congress passed a Federal Aviation Administration program extension through Sept. 30, 2017, days before the July 15 expiration of an earlier extension.

>> The U.S. Department of Transportation on July 29 awarded $500 million in TIGER grants, including $20 million to New Haven, Conn., for new downtown street connections; $17.8 million to Scott County, Minn., for an interchange at US 169; $16.2 million to Camden, N.J., to reconstruct streets near the Benjamin Franklin Bridge; and $15 million to the Colorado Department of Transportation to improve a 14-mile section of North Interstate 25.

AWARDS

ARTBA Traffic Safety Industry Division’s John “Jake” Landen Memorial Safety Award for “significant, life-time contributions to the improvement of roadway infrastructure safety” to:

• King Gee (public sector), director of engineering and technical services for the American Association of State Highway and Transportation Officials (AASHTO).

• Bryce Anderson (private sector), chairman of Ennis-Flint. Presented June 7 at the Traffic Safety Industry Division (TSID) summer social in Savannah, Ga.

NEWMAKERS

Jeffrey Stiles joined ARTBA member TranSystems Corp. on Aug. 3 as market sector leader for the firm’s passenger rail and transit sector.

ARTBA board member Richard P. Markwith on June 14 was named market sector leader for the States and Municipalities Sector of TranSystems Corp.

ARTBA member company Fecon Inc. of Lebanon, Ohio, on May 4 named Kevin Chambers as regional manager, Mid-South Region, covering Texas, Louisiana and Oklahoma.

ARTBA member Ennis-Flint of Thomasville, N.C., a pavement markings and traffic safety solutions firm, was acquired June 13 by Connecticut-based private equity firm Olympus Partners.

OVERHEARD

“The things we have not done that we need to do, that could make an enormous difference... The most obvious one would be infrastructure. We have about $2 trillion worth of deferred maintenance. And those are jobs that can’t be shipped overseas.”

— President Barack Obama in an interview with Bloomberg Business Week

Total deferred maintenance projects at the National Park Service, just over half of which are paved and unpaved roadways and parking areas, bridges and tunnels.

$12 BILLION

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Purdue University President Mitch Daniels, the former two-term governor of Indiana, is ARTBA's P3 Entrepreneur of the Year. The award is given to an individual who has made outstanding contributions to the forward progress of P3s in the U.S. transportation industry. It was announced in July during ARTBA’s annual P3 Conference in Washington, D.C.

Daniels was influential in establishing the City of West Lafayette and Purdue University Joint Board as the partnership body for all aspects of the procurement and financing of the State Street Redevelopment Project. The project broke ground in June and will revamp a major thoroughfare through the Purdue campus. It will promote multimodal travel features, including bike paths and pedestrian walkways, with the goal of enhancing safety for pedestrians, cyclists and drivers throughout West Lafayette. The project is the first U.S. availability payment P3 project to be procured by a university and the first to reach financial close where the consortium's bid included a privately placed bond with fixed credit spreads.

Under Daniel's leadership, Purdue will continue to explore potential P3 development opportunities in such areas as student housing, food services and the build-out of the recently announced Purdue Innovation District.

Mark Holan is ARTBA editorial director.

Plenary Group: P3 Project of the Year

Terry Ostrom is senior vice president, project delivery at Plenary Group. The Denver-based executive was responsible for all aspects of the US 36 Express Lanes project, ARTBA’s 2016 P3 Project of the Year. He answered a few questions for Transportation Builder.

What’s the key to a successful P3 project?

T.O.: I think the most important element to getting a successful P3 started is having an owner champion. On US 36, Gov. John Hickenlooper (D) and Colorado Department of Transportation (CDOT) Executive Director Don Hunt were committed to the P3 delivery model. They appointed Colorado High Performance Transportation Enterprise (HPTE) Director Michael Cheroutes both retired during construction of US 36. Both were replaced with very capable P3 advocates: Shalen Bhatt as executive director at CDOT, and David Spector as director at HPTE. Having strong leaders at the top who understand the benefits of P3s help to reduce political risks.

Does US 36 illustrate any particular challenges for transportation P3s?

T.O.: Political risk is one of our industry’s toughest challenges. Because large projects can take so long to mature, there is always a risk that a new administration can change direction. This is why owner's champions are so important. In Colorado, Don Hunt and Michael Cheroutes both retired during construction of US 36. Both were replaced with very capable P3 advocates: Shalen Bhatt as executive director at CDOT, and David Spector as director at HPTE. Having strong leaders at the top who understand the benefits of P3s help to reduce political risks.

Political risk is also why it is so important for the industry to deliver on its promises. Colorado’s next governor may not be a P3 advocate, but it will be hard for that person to ignore the accolades of elected officials and others along the US 36 corridor who have seen how this P3 project delivered on its promises.

From left: John Dennis, mayor of West Lafayette; Mitch Daniels, president of Purdue University; Dale Bonner, executive chairman of Plenary Concessions; and Keith Rose, president and CEO of Rieth-Riley Construction Co. Inc. at the June 16 groundbreaking of the State Street Redevelopment Project.

Photo courtesy of Purdue University

Mark Holan is ARTBA editorial director.
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ALERT & ALIVE
THERE ARE NO DO-OVERS
Alert & Alive: New worker safety initiative

By Gerald Ullman
G-Ullman@tti.tamu.edu

Working while excessively fatigued can be as dangerous as working while intoxicated. With more road projects being done at night, the effects of fatigue are a growing safety concern for highway agencies and contractors.

At the same time, technological advances are resulting in more electronic devices being utilized for various tasks on the job site. These devices can distract workers and keep them from maintaining good situational awareness of worksite risks.

To combat these dangers, a new initiative has been developed to raise awareness and educate both workers and managers/supervisors about the risks of worker fatigue and the distractions caused by electronic devices. It suggests ways to minimize both.

The theme of the initiative is "ALERT & ALIVE." The premise is that, unlike video games, where players can be virtually reborn after being killed, there are no "do-overs" if an accident occurs at a real-world jobsite.

Tip cards have been developed to help spread information on ways workers can reduce and prevent the effects of fatigue or electronic device distraction from increasing their risk of an accident.

For example:
- Take short 10- to 12-minute naps during breaks to help combat the effects of fatigue;
- Watch for signs of fatigue in others, and notify supervisors if you start seeing unsafe behaviors occur; and
- Practice looking up and scanning for risks every few seconds while using a work-required electronic device on the job site.

Posters summarizing these tips are inserted on the previous page in a size suitable for pinning to bulletin boards in break rooms, job trailers, and other locations.

Online training modules also have been created for workers and for supervisors/managers to further educate them on these risks and strategies to combat them. These resources can be accessed at the National Work Zone Safety Information Clearinghouse at https://www.workzonesafety.org/work_zone_topics/alertness.

Visit the site today and see how you can better protect yourself and your workforce!

Gerald Ullman, Ph.D., P.E., is senior research engineer & program manager at the Texas A&M Transportation Institute.

Fall fact sheets help to inform and protect

By Bradley Sant
bsant@artba.org

Falls are the second-leading cause of death and injury in the transportation construction industry, behind run overs and backovers. According to the Occupational Safety and Health Administration, almost 40 percent of all construction fatalities are fall-related.

In an effort to help reduce incidents leading to fall injuries, ARTBA developed 13 fact sheets for the transportation construction industry. Over the next several issues of “Transportation Builder,” we will provide these fact sheets as a “tear out” so they can be used to train workers and managers in fall prevention. As an added public service, ARTBA is allowing the fact sheets to be copied and shared, as long as they are not modified from their original format.

Using illustrations, photos and plain-speaking explanations, the fact sheets are designed to help contractors and workers understand the basic concepts of fall prevention and protection. ARTBA’s goal is to provide the information in a way that anyone on the job site will understand how to work safely in a variety of conditions.

The fact sheets were developed by ARTBA in coordination with industry experts, and funded through a cooperative agreement with the U.S. Department of Transportation’s Federal Highway Administration. They are available for free download through the National Work Zone Safety Information Clearinghouse (www.workzonesafety.org), a project of the ARTBA Transportation Development Foundation and a valuable resource for industry professionals, news media and the general public.

Hard copies may be requested by emailing workzonesafety@artba.org.

Bradley Sant is ARTBA’s senior vice president of safety and education.
Preventing Swing Falls in Bridge Work

What Is a Swing Fall?
If the anchor in a personal fall arrest system (PFAS) is not directly above a worker’s head at 0° at all times, then any fall will include a horizontal direction. The horizontal direction makes the fall a ‘swing fall’ or pendulum fall.

The greater the angle from the anchor to the worker:
• the greater the arc of the swing fall
• the faster the velocity or speed of the swing fall
• the longer the vertical fall (free fall)

As the arc and velocity increase, so does the likelihood of impact with objects in the path of the swing fall.

The maximum arc of a swing fall is typically defined by degrees off center from the anchor, added to both sides of the center line. In practice, the arc of the fall will be somewhat less, because the energy of the horizontal movement, which is greatest when the fall begins, will diminish as the swing fall crosses the point of the overhead anchor (0°).

A swing fall can generate a lot of horizontal impact force. A worker in a swing fall can easily reach 20+ miles per hour in the horizontal direction. (A method for calculating swing fall speed appears on the reverse of this sheet.) A face, shoulder, arm, or back smashing into equipment or a structural member will cause serious harm or death for a worker.

Set Maximum Work Ranges
Swing falls can be minimized by working as directly below the anchor as possible (0° line). To reduce the risk of a swing fall, a company’s fall plan should set up a maximum work range from the anchor point to be calculated and enforced by the competent person. Many PFAS manufacturers recommend no more than 30° and others recommend 22.5° or less.

In the diagram on the left, the 0° line is directly below the anchor. The anchor is 20 feet above the working surface. The 30° lines define a work range of about 8 feet out from the anchor line (0°). The 22.5° lines define a range of about 6 feet from 0°.

For an anchor lower than 20 feet, the work range shrinks proportionately.

A worker anchored at or near the working surface is at increased risk of a swing fall.

If the anchor is less than 5 feet above the working surface (right), then the safe work range is drastically reduced to 2.5 feet out from the anchor line (0°).

Workers often exceed the maximum safe work range and this increases swing fall momentum and free fall distance.

Source: FOF.
How To Calculate Free Fall Distance and Speed in a Swing Fall

If an employee works more than 30° from the anchor, in a swing fall the line will be much longer than if the worker fell directly at 0°. The farther from 0°, the farther the free fall and the faster the falling worker moves.

- Measure the length of the line from the anchor to the D-ring at 0°. This represents the length of the line if no swing fall condition existed. Call it B. *
- Measure the length of the line from the anchor to the D-ring at the farthest work range along the edge. Call it C.
- Find the difference between B and C. Call this L. L is the vertical distance of the free fall.
- To find the speed, multiply L x 32 x 2 x 2. This is the effect of gravity on a falling object — 32 feet per second per second. Then convert feet per second to miles per hour.

**EXAMPLE AT RIGHT:**

<table>
<thead>
<tr>
<th>B (anchor to D-ring at 0°) = 13 feet</th>
<th>C (anchor to maximum) = 22 feet</th>
</tr>
</thead>
</table>

Horizontal L = 22 feet  
Effect of Gravity (32 x 2 x 2) = 1152  
FPS  
Speed:  
Miles Per Hour: 34 x 3600 / 5280 = 23 MPH

**If you only know B, you can calculate C:**

Measure the maximum distance on the edge from the 0° position at which the worker will work (A). Use \( A^2 + B^2 = C^2 \) to find the maximum length of line in the event of a swing fall. \( C = \sqrt{A^2 + B^2} \)

How To Set Maximum Work Ranges

The chart on the left is an easy tool for finding the maximum work range for a given anchor height. These examples show how the chart works:

1. For work 20 feet from the overhead anchor point (0°), how high must the anchor point be placed above the D-Ring?
   - Look across the chart horizontally to the 20-foot mark. This is the desired horizontal working distance from anchor point (D).
   - Follow the vertical up to intersect the green line. Then follow the green line back to the height of anchor point above D-Ring at left (H). The anchor point would have to be at 50 feet above the D-Ring.

2. If the only anchor point available is 30 feet above, how much horizontal working distance from the anchor point will the worker have?
   - Find the height of anchor point above D-Ring (H) on the vertical axis. Follow it across to intersect the green line.
   - Now follow down to the axis for the horizontal working distance from the anchor point (D): about 15 feet.
GO TO CASECE.COM/DSERIES TO FIND OUT. Only CASE D Series excavators come STANDARD with ProCare—the most comprehensive planned maintenance and heavy machine support in the industry. More loads per hour. More hours per tank. More done in a day, every day. The D Series is the perfect combination of power, performance and peace of mind. And that’s worth checking out.
While the heavyweight showdown between former Secretary of State Hillary Clinton and business mogul/reality TV star Donald Trump to be the next U.S. president is drawing considerable media attention, most of the heavy lifting on transportation investment and policy matters in the last three decades has come at the congressional level. As a result, the down ballot races that will decide control of the Congress are as—if not more—important to the outlook for future federal transportation investments. Republican control of the U.S. Senate is in jeopardy and Democrats expect to chip away at the GOP’s largest House majority since 1929.

**PRESIDENTIAL RACE**

Unlike previous presidential contests, both the Republican and Democratic candidates have made infrastructure investment a major component of their respective campaigns. Trump routinely references the inadequacy of the U.S. transportation network in his speeches and cites his record in real estate development as proof of his ability to address the nation’s infrastructure deficit. Secretary Clinton in February released a comprehensive proposal to dramatically increase federal transportation and infrastructure investment. She has pledged to send two legislative packages to Congress for action during her first 100 days in office—one on immigration reform and the other on infrastructure investment.

ARTBA has researched past statements and related material from both candidates. We are maintaining a comprehensive report, primarily based on the candidates’ own words, on the ARTBA website through the election. It can be found under the “Government Affairs, Current Issues” section of www.artba.org.

As of Aug. 1, Trump had not offered

*Continues next page*
specifics on his infrastructure plan, but he has stated repeatedly that it would be a priority for his administration. When announcing his candidacy in June 2015, Trump vowed a national rebuilding program, promising “[i]t will be done on time, on budget, way below cost, way below what anyone ever thought. I look at the roads being built all over the country, and I say I can build those things for one-third.”

He also devoted an entire chapter in his campaign book, “Crippled America: How to Make America Great Again,” to this topic. “I think we can all agree, after watching our politicians waste our tax dollars, that the last thing we want to do is to put them in charge of a trillion-dollar rebuilding program.”

Secretary Clinton proposes to increase direct federal investment in infrastructure by $250 billion over five years. Her plan does not specify how funds would be allocated among various infrastructure programs. It does, however, explicitly reference the 2015 FAST Act surface transportation program reauthorization by stating, “Clinton’s plan would go further, dramatically growing federal investments and laying foundations for future growth.”

She would also create a national infrastructure bank to leverage $25 billion in federal funds to support up to $225 billion in direct loans, loan guarantees, and other forms of credit enhancement. Her plan includes a national freight investment program and reauthorizing 2009’s “Build America Bonds Program” to lower the cost of borrowing for state and local governments in financing infrastructure projects. She proposes to generate the necessary revenue through “business tax reform” to support these enhanced investments.

U.S. SENATE

Republicans currently enjoy a 54-46 majority in the U.S. Senate. However, of the 34 Senate seats up for re-election in 2016, 24 are held by Republican and 10 by Democrats. Seven of the Republican positions in play this year are from states that President Obama carried in 2012.

Both the Republican and Democratic candidates have made infrastructure investment a major component of their respective campaigns.

SELECT WEBSITES

Association related:
· ARTBA: artba.org/government-affairs/
· Transportation Makes America Work: tmaw.com
· Transportation Investment Advocacy Center: transportationinvestment.org

Business:
· U.S. Chamber of Commerce: uschamber.com
· Business Roundtable: businessroundtable.org

Federal & State Campaign Finance:
· Federal Election Commission: fec.gov
· National Conference of State Legislatures: ncsl.org
· National Institute on Money in State Politics: followthemoney.org/

Presidential nominees:
· hillaryclinton.com
· donaldjtrump.com

Politics Fact Checkers:
· FactCheck.org: factcheck.org
· PolitiFact: politifact.com

Voting:
· vote.usa.gov

As a result of this favorable map, control of the upper chamber is up for grabs. It should be noted, however, that this map is reversed in 2018 and Democrats will be defending a disproportionate number of seats.

Regardless of which party controls the chamber, current Senate Majority Leader Mitch McConnell (R-Ky.) is expected to continue to lead his party and Sen. Charles Schumer (D-N.Y.) is expected to replace retiring Sen. Harry Reid (D-Nev.), the chamber’s minority leader. Control of Senate committees, however, is less clear. Environment & Public Works (EPW) Committee Chairman Jim Inhofe (R-Okla.) could shift to leadership of the Senate Armed Services Committee if Sen. John McCain (R-Ariz.), the panel’s current chairman, is not re-elected. The EPW Committee has jurisdiction over the federal highway program. Current EPW Committee Ranking Member Barbara Boxer (D-Calif.) is retiring and Sen. Tom Carper (D-Del.) is next in line to be the panel’s top Democrat. Sens. Orrin Hatch (R-Utah) and Ron Wyden (D-Ore.) are expected to continue to lead their respective parties on the Highway Trust Fund overseeing Senate Finance Committee, but would swap the chairman/ranking member roles if Democrats take control of the Senate.

Sen. Thad Cochran (R-Miss.) will likely continue as the top Republican on the Senate Appropriations Committee if his party holds the Senate. The Appropriations Committee provides the annual funding levels for the federal transportation programs. Sen. Barbara Mikulski (D-Md.), is retiring and could be succeeded by a number of senior party members on the committee.

U.S. HOUSE OF REPRESENTATIVES

The 247-187 Republican majority in the House of Representatives presents a steep mountain for Democrats to climb if they wish to regain control of the chamber. Few experts are projecting such a reversal at this point. Still, Democratic gains in the 2016 election would enhance their ability to influence the chamber’s legislative activity due to the deep divisions that currently exist among
House Republicans.

The House leadership is likely to go unchanged, with Paul Ryan (R-Wis.) and Nancy Pelosi (D-Calif.) maintaining their current roles as Speaker and Minority Leader, respectively. Should Democrats take control of the House, they would flip titles.

The Transportation & Infrastructure Committee should also look similar, as both Chairman Bill Shuster (R-Pa.) and Ranking Member Peter DeFazio (D-Ore.) are likely to keep their top spots, regardless of who controls the chamber.

Little change is expected on the Ways & Means Committee, as Chairman Kevin Brady (R-Texas) and Ranking Member Sandy Levin (D-Mich.), will remain in the top spots for their respective parties. Appropriations Committee Chairman Hal Rodgers (R-Ky.) is retiring at the end of 2016, leaving the top GOP spot open in the 115th Congress. Congressman Rodney Frelinghuysen (R-N.J.) is the next most senior on the committee, but could face a challenge from a more junior member. Ranking Democrat Nita Lowey (N.Y.) will likely retain her position.

YOUR ROLE IS CRUCIAL
Transportation investment and policy issues have been considered in the House and Senate almost annually for the past decade and there is no sign that will change. That means it is essential the transportation construction industry does everything in its power to ensure the people elected this November understand and support the federal government's role in delivering in transportation improvements in their state and across the nation. This responsibility includes:
- Educating yourself and your employees about candidates’ transportation positions;
- Reaching out to candidates to discuss your priorities; and
- Making sure you and your employees vote!

Please feel free to reach out to any member of the ARTBA government relations staff if you would like more information about how the members of your state's congressional delegation have voted on key transportation matters.

Dave Bauer is ARTBA senior vice president of government relations.

Rich Juliano is ARTBA senior vice president of strategic initiatives.

Dean Franks is ARTBA vice president of congressional affairs.

HOW TO REGISTER

Voter registration is regulated by the 50 states and District of Columbia. Deadlines, voter ID and other rules vary across the nation.

While a few states allow voters to register on Election Day, it's a generally a good idea to get signed up at least a month in advance.

This U.S. government web portal directs users to state voter registration information and sign up: vote.usa.gov/
McKee Risk Management, Inc. is the only specialized underwriting facility endorsed by the American Road & Transportation Builders Association. Our Construction Practice provides an innovative insurance program that specifically addresses the business risk exposures that Street & Road contractors face every day. We will work with your local insurance agency to place the most appropriate insurance coverage through one of our “A” rated markets.

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- Blanket Additional Insureds
- Blanket Waiver of Subrogation
- Primary & Non-Contributory – Other Insurance Condition

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The Campaign to Lock Up Illinois Road Funds

If the amendment is approved in November, the state can begin new infrastructure
Transportation advocates have one shot to get this right. They can’t afford to miss.

Nov. 8 ballot would require dedicating all transportation-related revenue (e.g. motor fuel tax and vehicle registration fees) solely to public highways, roads, streets, bridges, and mass transit. Wisconsin and Missouri have passed similar amendments. If the amendment is approved, transportation funding will be protected and the state will have an opportunity to make long-overdue infrastructure investments. If the amendment fails, it could take decades—if ever—before such a measure is considered again, placing the state’s transportation network in further peril during the long interim.

In other words, transportation advocates have one shot to get this right. They can’t afford to miss.

The Illinois Road and Transportation Builders Association (IRTBA), ARTBA’s chapter affiliate, has been fighting Road Fund sweeps and diversions for years. This spring, I testified before both chambers of the legislature as the association helped shepherd the resolution through the statehouse. It passed in the Illinois General Assembly with an overwhelming majority—the only ballot initiative to win approval this year.

Now that state legislators have placed the issue before voters, IRTBA is taking the lead in this important campaign by partnering with other trade associations, labor groups, and civic organizations. Transportation advocates have formed the statewide committee, Citizens to Protect Transportation Funding, to pass the ballot initiative. The group’s plan to secure the win includes television and digital advertising, as well as grassroots efforts through personal meetings, a social media and web campaign, and organizational outreach.

Polling shows that 85 percent of Illinois voters support the idea of a transportation lockbox, and 75 percent want more funding for roads and bridges. The big challenge in this campaign is translating that strong support into a majority of at least 60 percent in November, which is required for passage. Voters will have to read the language actually on the ballot, which tends toward “legalese,” and understand that a “yes” vote will help protect transportation funding. As an illustration of this challenge, poll respondents read the actual ballot language, and their support for the amendment dropped 23 percentage points, to 62 percent. So we really have little margin for error.

Polling also shows two clear lanes for pro-amendment messaging. First, when transportation funding is raided, peoples’ lives and property are placed at risk. Second, politicians in Springfield have mismanaged state budgets for far too long, and now residents are paying a terrible price.

Citizens to Protect Transportation Funding is aggressively pushing these two themes and educating the public to win the referendum.

A state constitutional amendment to protect transportation funding is a game changer—for the transportation industry, and for everyone who relies on Illinois’ transportation network.

Michael J. Sturino is president and CEO of the Illinois Road and Transportation Builders Association.

By Michael J. Sturino
msturino@irtba.org

Illinois voters this fall will have the chance to join other states that have amended their state constitution to put a lockbox on their road funds. Over the last 10 years, state politicians have shifted $6 billion from the Illinois Road Fund to fill holes they created in the state’s budgets. In 2015 alone, lawmakers swept over $500 million from the fund. That money is gone forever.

Yet Illinois infrastructure is crumbling. More than 4,200 bridges and half of the state’s roads are in poor condition, according to the U.S. Department of Transportation. The problems impact Chicago, as well as smaller cities and towns and the state’s rural areas.

The constitutional amendment on the
The magic of the EPA’s benefit/cost analysis

(Editors Note: EPA regulations have a huge impact on transportation programs, construction and investment. Sometimes these rules can leave reasonable people scratching their heads. That’s why we are republishing this article, which first appeared in “The Hill” on June 3, 2016.)

By Benjamin Zycher

Benefit/cost analysis: It sounds so scientific, so rational, so impartial. So sound as a tool with which to resolve conflicting assertions about the wisdom of regulatory proposals. So divorced from partisanship or ideological influence.

Oh, please. Democracy is the art of wealth redistribution, the bureaucracy is an interest group and benefit/cost analyses can be shaped to support virtually any outcome preferred politically. Consider, for example, the Environmental Protection Agency (EPA) efficiency rule for medium and heavy trucks, part of the administration’s climate action plan; the benefit/cost “analysis” used to justify it is hugely revealing. The EPA has published estimates of the effects of the rule, as follows:

The results of the analysis, summarized in Table VII-37, demonstrate that relative to the reference case, by 2100 ... global mean temperature is estimated to be reduced by 0.0026 to 0.0065 °C, and sea-level rise is projected to be reduced by approximately 0.023 to 0.057 cm.

The EPA then states that “the projected reductions in atmospheric CO2, global mean temperature, sea level rise, and ocean pH are meaningful in the context of this action.” And so we arrive at the benefit/cost conclusion, given in all seriousness:

[We] estimate that the proposed standards would result in net economic benefits exceeding $100 billion in net economic benefits? How is that possible?

Welcome to the fascinating world of EPA benefit/cost analysis. Before this truck rule and the other components of the Obama climate policy were promulgated, the administration conducted an “analysis” of the “social cost of carbon” (SCC), in order to generate an estimate of the marginal externality cost of greenhouse gas emissions (GHG). The problems with that analysis are legion, but the central ones are the use of global (rather than national) benefits to drive the benefit/cost comparison; the failure to apply a 7 percent discount rate to the streams of benefits and costs, despite clear direction from the Office of Management and Budget; and — most important — the use of ozone
and particulate reductions as “co-benefits” of climate policies. The administration’s estimate is about $36 per ton in 2015 ($31 per ton in 2010).

And that is how a regulation yielding future changes in temperatures and sea levels approaching zero can be claimed to yield net benefits “exceeding $100 billion, making this a highly beneficial rule.” In the EPA’s benefit/cost framework, the actual effects of the policies literally are irrelevant; just compute the assumed reduction in GHG emissions, multiply by $36, and voila!

Should you respond that any journey begins with a tiny step, consider the following. The Obama climate policy calls for a 17 percent reduction below 2005 levels in U.S. GHG emissions by 2020. If we apply the EPA’s own climate model, that would reduce temperatures by the year 2100 by fifteen one-thousandths of a degree. In addition, the U.S.-China Joint Announcement on Climate Change calls for an additional 10 percent reduction by the U.S. by 2025. (The Chinese commitment — it’s unenforceable — is for a “peak” in their emissions by 2030. Total emissions at that peak and the emissions path after the peak are not addressed.) The additional 10 percent U.S. reduction yields another one one-hundredth of a degree. The standard deviation of the temperature record is about 0.1 degrees, so that these effects would be too small even to be measured, let alone to affect sea levels and cyclones and all the rest.

If we add an additional 20 percent emissions cut by China by 2030, that adds 0.2 degrees; and another 0.2 degrees if we assume a 30 percent emissions cut by the rest of the industrialized world, by 2030. If we assume also a 20 percent reduction by the less-developed world by 2030, temperatures would be reduced by another one-tenth of a degree.

The grand total: a bit more than 0.5 degrees. And these model predictions use underlying parameters highly favorable to the policies under examination; that is, assumptions that increase the predicted effects of the policies. The most important is a “climate sensitivity” (the temperature effect in 2100 of a doubling of GHG concentrations) assumption of 4.5 degrees, a number 50 percent greater than the median reported by the Intergovernmental Panel on Climate Change in its latest assessment report. And even the latter is about 40 percent higher than the median of the estimates published in the recent peer-reviewed literature.

For obvious reasons, these trivial temperature benefits of “climate” policies have not been publicized extensively. It is the delegation of legislative powers to the regulatory agencies that has allowed such game-playing in pursuit of an ideological agenda.

Benjamin Zycher is the John G. Searle scholar at the American Enterprise Institute: benjamin.zycher@aei.org.
The Association of Equipment Manufacturers (AEM) offers two colorful, informative and easy-to-understand “think safety” posters that can be handed out or displayed in breakrooms, on shop floors, in classrooms, or anywhere important safety information needs to be shared. Both are available for free download.

**EQUIPMENT SAFETY REFERENCE GUIDE**

The AEM Equipment Safety Reference Guide poster stresses the importance of understanding signal words such as “Danger,” “Warning,” “Caution” and “Notice.” The poster also provides tips in five “practice safety” sections including Protect yourself; Follow a safety program; Prepare and operate safely; Maintenance safety; and Before you dig.

Get the poster at [www.aem.org/poster](http://www.aem.org/poster).

**ULSD REFUELING HAZARDS OUTLINED**

AEM also offers an infographic that encourages workers to know the potential hazards for ultra-low sulfur diesel (ULSD) when refueling. The infographic references AEM’s best practices guidance bulletin, “ULSD...Not Your Same Old Diesel Fuel Anymore.” The current formulation of diesel fuel, though treated with an additive, can have decreased conductivity and increased ability to store static charge, which can build up in the fuel delivery system. While it may not be noticeable to most users, there may be a greater risk of static electricity ignition if their remote refueling systems are not properly functioning or maintained. Even the smallest spark while refueling can result in a fire or explosion.

The ULSD refueling infographic is available at [www.aem.org/fuel](http://www.aem.org/fuel).

**ADDITIONAL SAFETY OFFERINGS**

“AEM supports safety awareness year-round by offering an extensive array of safety products, including safety manuals and videos, with major equipment types covering aerial, agriculture, compact/portable, earthmoving, forestry, lifting, road paving and utility excavation applications,” said James Vos, AEM safety materials manager.

Visit [safetymaterials.org](http://safetymaterials.org).

AEM provides trade and business development services for companies that manufacture equipment, products and services used world-wide in the agricultural, construction, forestry, mining and utility sectors. AEM is headquartered in Milwaukee, Wisconsin, with offices in the capitals of Washington, D.C., Ottawa, and Beijing.
More than 3 million miles of roads and over 300,000 bridges in the United States are owned and maintained by local governments.

In 1982 the Federal Highway Administration established the Local Technical Assistance Program (LTAP). In 1991 the Tribal Technical Assistance Program (TTAP) was also formed. LTAP and TTAP help local governments improve management of their transportation networks.

There are 58 LTAP/TTAP Centers: one in each state, one in Puerto Rico, and seven regional Centers that serve tribal governments. Most Centers are housed at colleges, universities and state departments of transportation.

The mission of LTAP/TTAP is to foster a safe, efficient, and environmentally sound surface transportation system by improving skills and increasing knowledge of the transportation workforce and decision makers.

LTAP/TTAP strives to improve safety for users on local roads, help local governments build and maintain their infrastructure as well as utilize workforce efficiently, and teach road workers how to do their jobs safely.

The national program focus areas are safety, workforce development, infrastructure management and organizational excellence. LTAP/TTAP Centers help communities improve the quality and condition of their transportation network.

www.LTAP.org
Q: Why should a woman consider a career in the transportation design & construction industry?

L.R.: Efficient transportation, regardless of mode, is the foundation for successful economic activity. The opportunity to contribute to this critical element of our country's economy is a very rewarding career. As the world and the way we move people and goods evolves, you have the chance to be a part of shaping that future.

Q: Best advice for young women in college thinking about a career in this industry?

L.R.: Just do it! There are many different opportunities and areas for women to contribute to transportation. As a civil engineering student, I spent summers working in various aspects of the industry trying to determine the best ultimate fit for me. In each assignment, I was fortunate to meet extraordinary professionals and absorb many different aspects of the business. I am certain that these initial experiences helped me to be a more well-rounded engineer.

Q: Who has been a mentor to you in your career? Has mentorship helped you further your career goals?

L.R.: I have been incredibly fortunate to have many informal mentors throughout my career. A great deal of our professional growth stems from our interactions with others. Finding someone who you connect with, admire and can seek counsel in confidence is important. Informal mentoring relationships, the kind you initiate on your own, can absolutely propel your career.

Q: The industry is still dominated by men. Do you see this changing? What do women need to know about that?

L.R.: During my 25 years in the industry, I have seen things change significantly. Today, women are leaders of government transportation organizations at the local, state and national levels, women are CEOs of construction companies, and women serve as thought leaders in the industry. These are huge strides in a short period of time, and the diversification in this industry will continue.

Q: How has ARTBA’s Women Leaders Council helped your career and/or your industry involvement?

L.R.: As with any organization, you get back what you give. Becoming engaged in the WLC provided me with a forum to interact in a meaningful way with other women in the industry. This interaction has created incredible bonds that will help sustain each other for many years to come.

Q: Regarding women in this industry, what would you like to see happen over the next five to 10 years?

L.R.: As the mother of an 8-year-old daughter, I would love to see a greater number of women represented in the transportation industry. I firmly believe that women bring a different perspective to the problems that our industry faces.

Edited by ARTBA editorial director Mark Holan.
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GOMACO Corporation pioneered the development of the first cylinder finisher over 50 years ago when the company developed and manufactured a bridge deck finisher to meet the growing needs for bridge markets. Today, GOMACO cylinder finishers are designed for versatility with the C-450 and C-750. The C-450 frame widths range from 12 feet to 104 feet, with transitional framework attached. The C-750 frame widths range from 16 feet to 160 feet. They are easy to operate and save time and labor costs on all of your concrete finishing projects. Pin-connected sections provide fast setup time and the versatility to fit exact job requirements. GOMACO’s patented three-point finishing system provides the smoothest deck possible with an auger to level the concrete, a cylinder consolidates and finishes the concrete, and a float pan seals and textures the surface. GOMACO finishers are available with several different options to customize them to your exact bridge deck specifications. Give us a call for the latest in concrete paving technology. Our worldwide distributor network and our corporate team always stand ready to serve and assist you.