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STAFF EDITOR	Andrea Keeney akeeney@acec.org 202-682-4347
SENIOR COMMUNICATIONS WRITER	Gerry Donohue

## ACEC PUBLIC RELATIONS AND EDITORIAL ADVISORY COMMITTEE

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## THE MAGAZINE GROUP

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## ADVERTISING SALES

Nina Goldman  
Director  
Advertising & Sponsorships  
ACEC  
1015 15th Street, NW, 8th Floor  
Washington, D.C. 20005-2605  
202-682-4325  
ngoldman@acec.org

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## ACEC Stays Focused on Economic Recovery Actions

Passage of the American Recovery and Reinvestment Act (ARRA) of 2009 has led to new opportunities for engineering firms, and ACEC's educational programs are helping members identify and take advantage of these opportunities:

- ACEC's online seminars are featuring senior government officials responsible for ARRA disbursements;
- ACEC's Economic Stimulus Resource Center on the ACEC website makes sure that members have all the latest information on ARRA programs;
- This month's Market Watch column (see page 6) provides an overview of how stimulus dollars are flowing into the economy; and
- ACEC's recent Annual Convention in Washington, D.C., featured insights on the stimulus program from national leaders, including U.S. Secretary of Transportation Ray LaHood; the Chief of the U.S. Army Corps of Engineers,

Lt. Gen. Robert Van Antwerp; and senior officials from GSA, USAF, NAVFAC, NASA and the U.S. Department of Education.

To further advance economic recovery and improve the business environment for engineering firms, hundreds of ACEC's "citizen lobbyists" converged on Capitol Hill in April as part of our Annual Convention to advocate for a new six-year surface transportation program; new legislation

to significantly boost funding for water infrastructure projects; repeal of the onerous 3 percent withholding mandate that will impact every firm working for federal, state and even some local government clients; and congressional support for contracting out.

This issue of *Engineering Inc.* also presents the 2009 Engineering Excellence Award Winners. The 168 entries in this year's competition represent exceptional achievement, and we extend our congratulations to each of them.

*Timothy Psomas*

Timothy Psomas  
ACEC Chairman

*David A. Raymond*

David A. Raymond  
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## Engineers Preserve Priceless Artworks

**E**ngineers at England's University of Warwick are helping to preserve the canvases of some of the world's greatest artworks by adapting advanced computer modeling to analyze fabric.

Professor Wanda Lewis of Warwick's School of Engineering leads research that formerly used the equipment to model the stresses and strains on tensioned fabric enclosures, such as the Millennium Dome in London. "I realized that we can apply the same modeling principles to predict the behavior of artists' canvas, which is simply a different material and structure," she says.

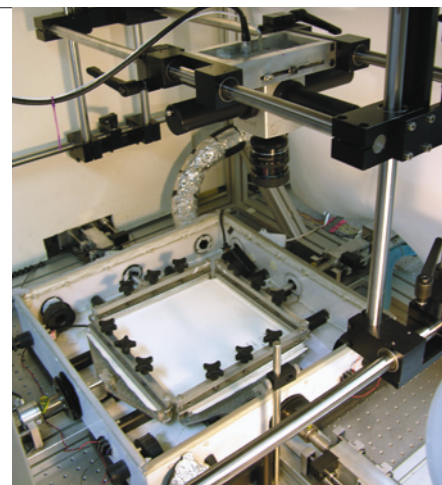
With a painted canvas, Lewis' team can model every detail down to the number and position of the staples, friction of the

fabric, effectiveness of the staples and how the fabric is wrapped around corners.

"The results of our work can bring about significant improvements in the methods of tensioning the canvas to ensure as uniform distribution of stress as possible," says Lewis.

Lewis is working with The Courtauld Institute of Art in London to develop modeling technology for the art world. "Jointly with The Courtauld, we aim to predict the effects of temperature and humidity on the behavior of fabrics," she says. "We can then predict where there are potential areas of damage, avoiding the risk of disaster."

"This work will provide invaluable information to help us improve and



**Biaxial Tensile Tester with ESPI used to test strain and stresses on painting canvases.**

develop structural conservation treatments for paintings on canvas," says Dr. Christina Young of The Courtauld Institute of Art's Conservation and Technology Department. "It also opens up new options for living artists by finding fabrics that are suitable for novel projects and longevity."

## Study: How Hard Do Football Players Really Hit?

**F**ootball players frequently absorb hits equivalent to being struck by a small car, according to an ongoing study at Virginia Tech University's College of Engineering.

Working with the university's football program, the engineering faculty has installed the Head Impact Telemetry System (HITS) in players' helmets. HITS combines circuitry, multiple accelerometers and a wireless transmitter to send data on the linear and rotational acceleration of a player's head during impact.

"The big goal is: Can we have a better understanding of what causes a concussion? And if we can, can we design helmets to reduce these, or can we come up with better treatments?" says Stefan Duma, a mechanical engineering professor and coordinator of the HITS project. "We've got the engineering side to measure what caused it, and then we've got the medical and sports medicine side to evaluate it."

The data shows the researchers "how hard the player's head was accelerating.

Acceleration is a good indication of brain injury," says Duma. "We can go from there and look at what goes into causing the brain injury."

Over the past six years, the program has collected data on more than 50,000 impacts, which it measures in relation to the acceleration of gravity, or 9.8 meters per second squared.

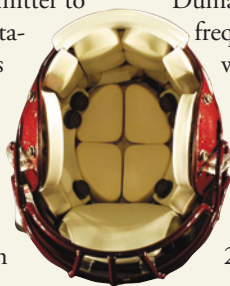
Duma says the football team frequently records 100-g impacts, which he compares to being struck by a small vehicle. On rare occasions—fewer than 10 times over the course of the study—the equipment has recorded impacts in excess of 200 gs.

"Two hundred gs is like an extremely severe car crash," Duma says. "One where there are injuries and big problems."

On the field, linebackers tend to suffer the biggest hits. Linemen get hit more often, but the impacts are lower.

"There is a wide range of impact conditions," says Duma. "We know that

impact varies by position, by player, how they play the game, and by what part of their body gets hit."



**Football helmet engineered with the HITS system.**







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## Stimulus Dollars Accelerate Engineering Business

By Joe Salimando

**L**ong-ignored infrastructure projects are quickly being funded, thanks to the recently passed American Recovery and Reinvestment Act (ARRA), providing a rush of opportunities for U.S. engineering firms.

Of the \$787 billion package, \$48 billion has been tagged by President Barack Obama as an investment in highways that “will create or save 150,000 jobs by the end of next year, most of them in the private sector.” All told, the White House estimates that the stimulus will create 678,000 construction industry jobs by the end of 2010.

To be eligible for stimulus package money, contracts have to be in place 180 days after Feb. 17, when ARRA was signed into law.

After months of speculation, the so-called “shovel ready” impact of stimulus funding is coming to fruition. Consider these examples:

### Transportation

**Georgia**—One report estimated \$931 million to be used by Georgia’s DOT on road projects, with another \$143 million tagged for the state’s six largest metro areas.

**New Jersey**—\$894 million for highway and transit projects statewide, according to *New York Construction* magazine, including \$138 million for the Access to the Region’s Core project, which involves construction of a second rail tunnel into Manhattan.

**Maryland**—More than \$600 million in transportation funding is planned, of which

## Engineers Said to Be Among Prime Stimulus Beneficiaries

Here are the six white-collar occupations that are “sure to benefit” from the stimulus package, according to RiseSmart.com CEO Sanjay Sathe:

1. Urban planners
2. Civil engineers
3. Computer system analysts
4. Medical researchers
5. Management consultants
6. Auditors

On his blog, Sathe wrote: “After the planning comes the design and construction. Thousands of civil engineers will be needed to design and supervise the construction of roads, bridges, tunnels, buildings, wind turbines and other projects that get a green light as a result of the stimulus package.”

\$137 million is to be spent on state road and bridge projects.

**Mississippi**—The DOT here will distribute \$24 million to cities “based on population,” according to *The Natchez Democrat*. “Each city has six months to find a project, go through all normal approval processes, and begin to advertise for bids.”

**Oklahoma**—A report in the *Muskogee Phoenix* quoted an ODOT engineer saying that six stimulus-funded projects were scheduled to be let for bid.

**Tennessee**—An Associated Press report said that 10 contracts for bridge replacements already have been bid, accounting for \$6.6 million of the \$572 million that state officials expect to get for road and bridge projects in the next two years.

### Federal Projects

**Department of Defense**—The DoD plans to put \$5.9 billion to work on approximately 3,000 military construction and facility improve-

ment projects. That’s out of \$7.4 billion total, of which the Air Force gets \$1.7 billion. These projects, according to a report, are to be distributed across all 50 states, as well as Washington, D.C., Guam and Puerto Rico. Biggest among the planned projects: new hospitals for Camp Pendleton in California and Fort Hood in Texas.

**Department of Energy**—DoE has outlined where \$6 billion in cleanup funds under ARRA will go. More than \$3.7 billion is going to just two locations: Hanford, Wash., and the Savannah River site in South Carolina.

**General Services Administration**—The procurement agency for the federal government has \$5.5 billion in stimulus funds to distribute, including \$4.5 billion earmarked to turn federally owned buildings into high-performance green buildings.

**National Oceanic and Atmospheric Administration**—Among several NOAA

priorities in the stimulus package is \$170 million “for habitat improvement projects aimed at helping species such as endangered salmon,” according to *The Oregonian*.

And there are other potential sources of funding. Consider the State Fiscal Stabilization Fund, also included in the package. According to the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., up to \$48.3 billion can be allocated to schools, and \$25 billion more in eligible bonds also has been authorized.

### Want in on stimulus work? Here are a few tips to consider:

- a. Keep your eye on ACEC’s Economic Stimulus Resource Center, available at [www.acec.org](http://www.acec.org). Also included is a link to Building America’s Future, which connects users to each state’s relevant website.
- b. States, state transportation departments and localities often post stimulus project websites. Pennsylvania’s site ([www.recovery.pa.gov](http://www.recovery.pa.gov)) launched recently, as did the Georgia DOT stimulus page (<http://snipurl.com/fd4nj>). Also, see the federal website: [www.recovery.gov](http://www.recovery.gov).
- c. ACEC’s March 26 webinar, “Stimulus \$ for Transportation Projects,” is archived for download from the ACEC Bookstore at [https://netforum.acec.org/eweb/?site=acec\\_store](https://netforum.acec.org/eweb/?site=acec_store).

Joe Salimando writes on the construction industry at [www.electricalcontractor.com](http://www.electricalcontractor.com). He can be reached at [ecdcom@gmail.com](mailto:ecdcom@gmail.com).



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## MAJOR WATER LEGISLATION ON THE MOVE IN SENATE; CITIZEN LOBBYISTS ADD CO-SPONSORS TO 3% REPEAL LEGISLATION

### Senate Committee Clears ACEC-Backed \$38.5 Billion Water Bill, Expands QBS

The Senate Committee on Environment and Public Works approved major water infrastructure legislation in May that significantly boosts investment in drinking water and wastewater projects.

The package also includes a new mandate to require municipalities to use QBS on federally funded water projects.

The Water Infrastructure Financing Act of 2009 (S. 1005) authorizes \$38.5 billion over five years for projects funded through the Clean Water Act and Safe Drinking Water Act State Revolving Fund (SRF) programs.

Introduced jointly by the committee chair, Sen. Barbara Boxer (D-Calif.), and the senior committee Republican, Sen. Jim Inhofe (R-Okla.), the measure extends SRF loans to 30 years; broadens the list of eligible projects; and gives greater weight to applications from communities developing asset management and long-term financial plans. It also adds grant programs for watershed restoration projects, combined sewer overflows and "critical drinking water infrastructure projects;" and revises the allocation formula to state water agencies.

The Senate bill requires communities with populations over 10,000 to use QBS on SRF-funded projects. The House-passed bill includes a QBS mandate that would cover all federally funded projects.

The Council will advocate for the broadest possible application of QBS when the Senate considers this legislation on the floor, possibly this summer, or in conference with the House bill.



Sen. Barbara Boxer (D-Calif.)



Sen. Jim Inhofe (R-Okla.)

### Federal Budget Makes Room for Additional Infrastructure Funding

Congress has approved the federal budget for the coming fiscal year, opening the door to significant funding increases for transportation programs under the next highway bill.

The final budget provides a baseline of \$324 billion for highway and transit programs for the next six years, the anticipated length of the SAFETEA-LU reauthorization bill. During final negotiations, ACEC responded to a "call to arms" from House Transportation Committee Chairman James Oberstar (D-Minn.) and successfully advocated for the restoration of \$82 billion that had been cut in the Congressional Budget Office and earlier Senate baselines. Importantly, the budget also includes a reserve account for increased funding as long as new spending is supported with additional revenues into the Highway Trust Fund.

ACEC won another crucial victory when Congress rejected an administration proposal that would have threatened the budgetary "firewalls" that protect Highway Trust Fund revenues. ACEC and other industry groups strongly opposed the administration proposal because it would have weakened the funding guarantees that allow states to execute multiyear highway, transit and aviation programs.

"This is an important win, and a critical first step, to increase federal investment in transportation infrastructure," said ACEC President Dave Raymond. "This budget gives us the ability to fight for a robust reauthorization bill with adequate and stable funding sources for meeting our transportation improvement needs."

On the environmental side, the resolution provides \$3.9 billion for the Clean Water Act and Safe Drinking Water Act State Revolving Fund (SRF) programs, allocating \$2.4 billion for wastewater projects and \$1.5 billion for drinking water projects, more than double the current funding level.

The budget also includes language that could potentially make it easier for Congress to pass health care reform legislation later this year.

ISSUES ON THE MOVE	WHAT'S NEXT
2010 budget	Individual spending bills to move June, July
3% withholding repeal	Implementing regulations to be developed by IRS
Senate water infrastructure bill	Floor consideration this summer

## Annual Convention Lobbying

ACEC's "citizen lobbyists" scored significant victories during the industry's Capitol Hill visits at the recently concluded Annual Convention.

Members secured additional support for repeal of the onerous 3 percent withholding mandate and educated House and Senate offices on the looming funding crisis facing the Highway Trust Fund. Citizen lobbyists also focused on final passage of a new water infrastructure program and stressed the importance of contracting out to the engineering industry as an effective means of delivering innovative infrastructure improvements to the public.

"Hill visits really do work," said Peter Strub of TranSystems in South Carolina. Strub said that soon after his meeting with Rep. Bob Inglis (R-S.C.), the congressman contacted him to confirm that he had signed on as a co-sponsor of the 3 percent withholding repeal legislation. Floyd Damron of CH2M HILL in Alaska reported a similar success story in the Senate, securing newly elected Sen. Mark Begich (D-Alaska) as a co-sponsor.



Katharine Mottley, ACEC's director of tax and regulatory affairs, testified before the IRS in April on behalf of the Government Withholding Relief Coalition.

## ACEC Calls for 3% Repeal at IRS Hearing

ACEC delivered testimony before the Internal Revenue Service recently on behalf of a large coalition of business organizations opposed to the 3 percent withholding mandate.

The IRS is gathering industry input as it finalizes regulations for the mandate, slated to take effect in 2012.

Katharine Mottley, ACEC's director of tax and regulatory affairs, testified as part of the Government Withholding Relief Coalition, which consists of more than 90 governmental organizations, trade associations and businesses.

In addition to expressing ACEC's and the coalition's strong opposition to the mandate, Mottley's testimony focused on specific implementation problems, such as the rule's onerous impact on so-called "pass through" entities, including subchapter S corporations, partnerships and sole proprietorships.

## ACEC/Nevada Wins Major Liability Limits Victory in State Supreme Court

The Nevada Supreme Court has issued a landmark ruling that strongly protects a design firm's ability to limit its liability for a client's commercial losses on a project.

When a client and a service provider have contractually agreed to limits on the provider's liability and the client then experiences purely economic losses, the Economic Loss Doctrine bars the client from obtaining a higher monetary award than the contract permits. In the Nevada Supreme Court case of *Terracon v. Mandalay Resort Group*, the Court held that the Economic Loss Doctrine specifically protects engineers and architects.

ACEC filed a joint amicus brief with ACEC/Nevada and other design organizations to defend the Economic Loss Doctrine. The brief was coauthored by the Las Vegas law firms of Beckley Singleton and ACEC affiliate member law firm Morris Polich & Purdy. ACEC provided financial assistance for the brief through grants from the Minuteman Fund, DPC and ACEC/Nevada. The ACEC Legal Counsel Forum also reviewed the brief and provided valuable comments.

"This is a tremendous victory for the engineering industry," said ACEC/Nevada President Cindy Potter of CH2M HILL. "We are grateful to ACEC for its instrumental role in helping to defend the Economic Loss Doctrine in Nevada. The decision establishes a great precedent that we hope other states will follow."

## ACEC/West Virginia Gains QBS Victory

In a major legislative victory for the engineering industry, ACEC/West Virginia has successfully defended the use of Qualifications-Based Selection (QBS) for the procurement of engineering services in the state.

The state organization defeated legislation introduced by the governor to modify the state's QBS law and successfully countered a statewide public relations campaign intended to garner support for the legislation. The ACEC Minuteman Fund helped support the state's advocacy efforts.

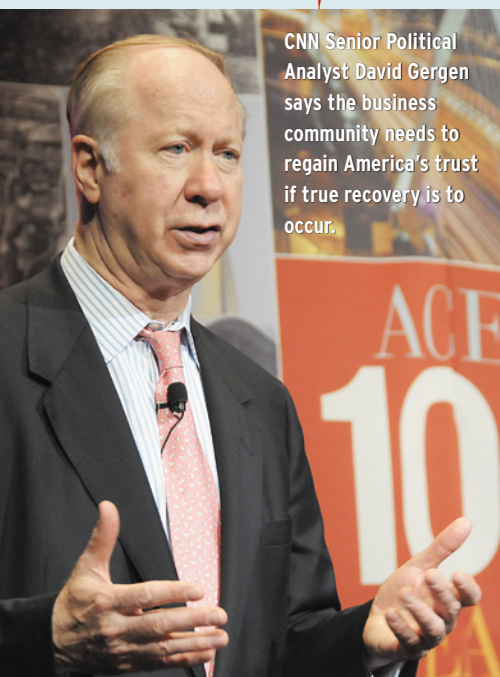
"By simply providing fact-based information, we removed any underlying politics from this issue and successfully educated legislators about the benefits and merits of the QBS procurement process," said Darrell Buttrick, executive director, ACEC/West Virginia. "The leadership of our board clearly motivated our membership to engage in the legislative process, and our membership is to be highly commended for heeding the call to duty. We also greatly appreciate the support provided by the ACEC Minuteman Fund."

## FOR MORE NEWS

For weekly legislative news, visit ACEC's *Last Word* online at [www.acec.org](http://www.acec.org).



# More Than 1,000 Celebrate ACEC's 100 Years Of Industry Influence



CNN Senior Political Analyst David Gergen says the business community needs to regain America's trust if true recovery is to occur.

**T**he recently concluded ACEC Annual Convention celebrated 100 years of Council achievement.

More than 1,000 members and guests attended the three-day Anniversary Convention in Washington, D.C., kicked off by the famed Capitol Steps comedy troupe.

Secretary of Transportation Ray LaHood, CNN Senior Political Analyst David Gergen and chief of the U.S. Army Corps of Engineers Lt. Gen. Robert Van Antwerp were among the notable speakers.

Throughout the week, attendees took part in educational sessions and political activities focused on business issues and stimulus funding opportunities.

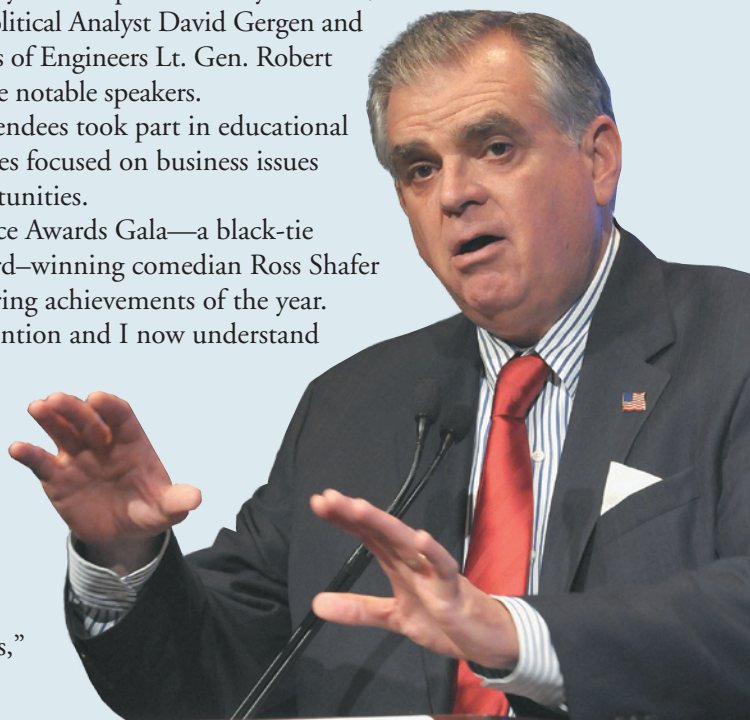
The Engineering Excellence Awards Gala—a black-tie affair hosted by Emmy Award-winning comedian Ross Shafer—honored the best engineering achievements of the year.

“This is my second Convention and I now understand the phenomenal system that must be in place to put

something like this together,” said Joseph Debs of Reynolds, Smith and Hills, Inc., in Jacksonville, Fla. “I really appreciate being overwhelmed with activities. There were always two places I wanted to be at the same time.”

Herbert Parker of Garver Engineers in Little Rock, Ark., called the Convention “an outstanding event” and very well organized. “One of the most valuable experiences was the CEO Roundtables,” Parker said. “I’m always impressed that those of us who compete against each other can get together and discuss how to improve our businesses.”

“This was my first year at the Convention, and it was a very rewarding experience for me to go up on the Hill and meet with one of our congressmen,” said Robert Huttman of LU Engineers in Penfield, N.Y. “I also really enjoyed Lt. Gen. Van Antwerp, especially when he called engineers the ‘unsung heroes.’”



U.S. Transportation Secretary Ray LaHood assures attendees that the stimulus bill will get infrastructure projects moving.

## ACEC

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The world-renowned Capital Steps comedy troupe highlighted the Convention's Centennial Reception and Dinner.

### LaHood Committed to Rebuilding Nation's Infrastructure; Not Sold on Gas Tax Increase, VMT

U.S. Secretary of Transportation Ray LaHood laid out a transportation agenda for the coming years, stating that "reinvesting and rehabilitating our national transportation infrastructure is one of the highest priorities" of President Obama's administration.

"The American Recovery and Reinvestment Act of 2009 is the single biggest investment in our transportation infrastructure since the Interstate Highway System," he said. "It represents a new commitment to rebuilding our national infrastructure."

LaHood also highlighted the administration's high-speed rail initiative, which calls for \$8 billion to build and upgrade passenger rail service in key areas around the country.

Speaking about the upcoming authorization of a new highway bill, the Secretary indicated the administration was not yet ready to increase the gasoline tax or transition to a Vehicle Miles Traveled (VMT) system.

"While the Highway Trust Fund is inadequate to do all the things we want to do," he

said, "this administration feels it is not the time to raise the gasoline tax."

Instead, LaHood promoted a variety of other potential funding sources, including an infrastructure bank, tolling and public-private partnerships.

### Gergen Sees Important Political Role for Business

In an address during the Convention's Opening General Session, CNN Senior Political Analyst David Gergen said he has rarely seen a politician with "such enormous possibilities" as Obama, but added that the new administration appears to have adopted a cautious attitude toward business.

He painted a mixed picture of the Obama administration, pointing out that the president has placed few business people in leadership positions and said the business community should be wary.

"This is the first Cabinet in my memory with no CEOs," Gergen said. "Not having people from business in the administration is an unfortunate omission."

Gergen predicted that when the dust settles from the current economic storm, "there will be a new landscape between the government and business."

### Convention Highlights:

- ACEC/California's Timothy Psomas succeeded John Hennessy to become ACEC's 2009–2010 chairman, and five new members joined the 2009–2010 Executive Committee with Gerald Stump as chairman-elect. New national vice chairs are Robin Greenleaf, Bartlett Patton and Kenneth Wightman. ACEC/Kansas Executive Director Scott Heidner will serve as the NAECE representative.
- ACEC's Board of Directors adjusted the membership dues cap from 2,140 employees to 5,000, to be implemented over a three-year period by one-third each year; passed a bylaws amendment allowing national membership eligibility for surveying firms; and an amendment allowing reciprocity with states on affiliate membership.
- Robert Atkinson, chairman of the National Surface Transportation Infrastructure Financing Commission, provided an update on his commission's call for an increase in the federal gas tax and the need to transition to a mileage-based financing system to address the nation's transportation funding crisis.
- Reps. John Duncan (R-Tenn.), Kendrick Meek (D-Fla.) and John Boozman (R-Ark.) highlighted the Convention's legislative programs.
- CDM was awarded the 2009 Grand Conceptor Award honoring the year's best engineering achievement for its work on the Orange County Groundwater Replenishment System—one of 168 projects honored at the Engineering Excellence Awards Gala (see page 14).
- In recognition of ACEC's 100th Anniversary, leaders of the International Federation of Consulting Engineers (FIDIC) presented the Council with a crystal award inscribed with the message: "Commemorating a Century of Leadership in our Industry."
- Officials from the Association of Canadian Engineering Companies presented ACEC with a beautiful painting in recognition of the Council's centennial achievement.
- ACEC former chairs presented ACEC President Dave Raymond an award for 10 years of exemplary service to the Council.



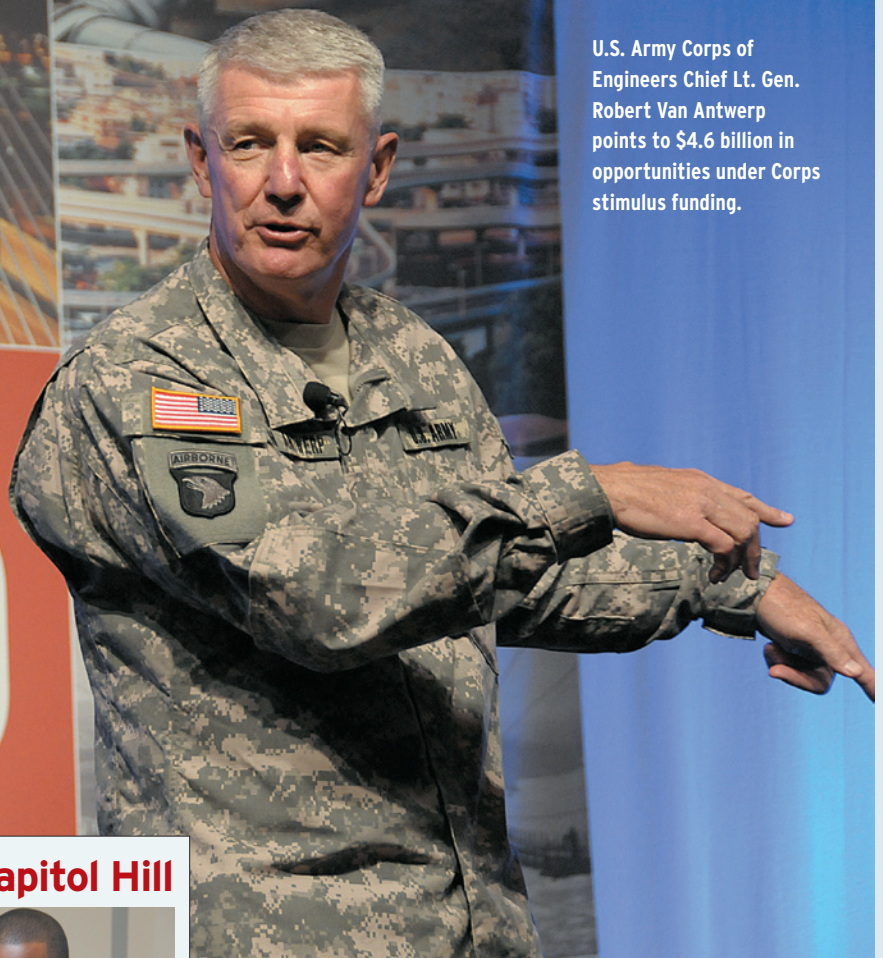
ACEC Vice Chairman Kenneth Wightman and his wife Patty swing to the sounds of the Radio King Orchestra at the Annual Convention's Centennial Soiree.



John Boyd, left, president of FIDIC, presents a commemorative crystal award to ACEC leadership in celebration of the Council's 100th Anniversary, as outgoing Chairman John Hennessy, incoming Chairman Tim Psomas and ACEC President Dave Raymond admire the award.



U.S. Army Corps of Engineers Chief Lt. Gen. Robert Van Antwerp points to \$4.6 billion in opportunities under Corps stimulus funding.



ACEC  
100  
YEARS

## Making a Difference on Capitol Hill



ACEC Vice Chairman Craig Avery, left, shares a laugh with Rep. Kendrick Meek (D-Fla.) during the ACEC/PAC Major Donor Luncheon on Capitol Hill. Meek is leading the ACEC-supported fight to repeal the onerous 3 percent withholding mandate.



Rep. Bob Inglis (R-S.C.) meets with ACEC/South Carolina leadership during the Annual Convention. Pictured, from left: National Director Peter Strub; Tony Woody, Thomas & Hutton Engineering Co., Mount Pleasant, S.C.; Inglis; Executive Director Joe Jones and President Mike Horton, Davis & Floyd, Inc., Charleston, S.C.

### Corps' Chief Van Antwerp Emphasizes Reliance on Private Sector

In an inspirational speech, Lt. Gen. Robert Van Antwerp, chief of the U.S. Army Corps of Engineers, described the Corps' multifaceted commitments both in the United States and abroad and underscored its reliance on the private sector for the execution of its projects.

Van Antwerp said the Corps has 700 stimulus projects worth \$4.6 billion that have "already been authorized and funded." The onslaught of work means the Corps will operate at "full capacity"—something it rarely is able to do for lack of funding. Van Antwerp says the windfall means more opportunities not only for the Army, but also for hundreds of thousands of private-sector engineers who work on Corps projects.

### ACEC/PAC Raises Nearly \$115,000 During Convention

ACEC/PAC enjoyed strong fundraising success at the 2009 ACEC Annual Convention, with almost \$115,000 in contributions to support the Council's political program.

The centerpiece of the fundraising activities was the ACEC/PAC Sweepstakes drawing.

This year's winners were:

- Terry Neimeyer, KCI Technologies, Hunt Valley, Md., \$10,000;
- Thomas Collins, Collins Engineers, Inc., Chicago, \$5,000;
- Harold Cannon, Cannon & Cannon, Knoxville, Tenn., \$2,000;
- Chris Robertson of Shannon & Wilson in Seattle, \$1,000. Robertson donated the money back to ACEC/PAC to further support ACEC's legislative initiatives.





Grand Conceptor Award winners on stage at the EEA Gala are, from left: Bill Howard, CDM and ACEC past chairman; David French, ENS Resources; Kelli Burn-Roy, CDM; Richard Corneille, CDM; Doug Davert, chairman, Orange County Sewer District; R. Bruce Chalmers, CDM; and Daniel Boyd, CDM.

### Sessions on Federal Agency Opportunities Draw Huge Crowds

Convention attendees packed four educational sessions to hear federal agency representatives provide contracting insights for upcoming stimulus-based infrastructure projects.

Participating agencies included the U.S. Department of Commerce, U.S.

Army Corps of Engineers, General Services Administration (GSA), NASA, the Naval Facilities Engineering Command (NAVFAC) and the U.S. Department of Veterans Affairs (VA).

"We are very much looking to leverage private industry to achieve our mission," said Donald Orndoff, director of the Office of Construction

and Facilities Management at the VA.

Federal officials across the board reported that competition for new projects is fierce. "Projects that before would have had three proposals are now getting 28," said Joseph Gott, chief engineer and director of capital improvement at NAVFAC, who manages an annual budget of more than \$5 billion.

Officials from NAVFAC and other agencies say they also are looking to forge closer relationships with private industry partners. Dennis Firman, director of the Air Force Center for Engineering and the Environment, said that 58 percent of his agency's projects were design/build in 2008. "We're aiming for about 90 percent design/build" moving forward, he said.



Enjoying the Convention's Opening Reception are, from left: Brenda Longman and James Escamilla of Byce & Associates, Inc., in Kalamazoo, Mich.; Mark Smolinski of G2 Consulting Group in Troy, Mich.; and Mike Cline of Hannum, Wagle and Cline in Indianapolis.

## Thank You

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The Louis Berger Group, Inc.  
Strand Associates, Inc.



# 2009 AWARD WINNER FOR DESIGN EXCELLENCE



The 2009 Engineering Excellence Awards Gala—known as the “Academy Awards” of the engineering industry—recognized 168 National Finalists and 24 top award winners, including Honor, Grand and one Grand Conceptor Award for overall engineering accomplishment.

A panel of 34 judges representing a variety of built environment disciplines selected the award recipients based on criteria such as uniqueness and originality, technical complexity, social and economic value, and public awareness.

For the seventh year, Emmy Award-winning comedian Ross Shafer hosted the Gala, which was attended by more than 500 members and guests.





# ACEC 2009 ENGINEERING EXCELLENCE AWARDS GRAND CONCEPTOR AWARD



## Orange County Groundwater Replenishment System, Fountain Valley, Calif.

CDM—Rancho Cucamonga, Calif.

Advanced engineering has produced the world's largest facility for transforming wastewater into drinking water.

Located in drought-plagued Orange County, Calif., innovations to the Orange County Water District's Groundwater Replenishment System include a multistage cleansing process capable of producing 70 million gallons per day of recycled water, all of which exceeds normal drinking-water standards.

The water is added after treatment to a major underground aquifer—the district's primary water source. The additional water source satisfies the needs of 144,000 households—nearly half a million residents.

The system features separate treatment facilities for microfiltration (pretreatment), reverse osmosis (purification) and ultraviolet light (disinfection and advanced oxidation). The project also



boasts three pumping stations, more than 13 miles of water transport pipeline and 16 injection wells.

The landmark water purification system goes beyond engineering recycled wastewater for agricultural and landscaping purposes and creates a shining model for large-scale drinking-water supply projects worldwide.



## ACEC 2009 ENGINEERING EXCELLENCE AWARDS GRAND AWARDS

### High Road Bridge Over Long Run Creek, Lockport Township, Ill.

Teng & Associates, Inc.—Chicago, Ill.

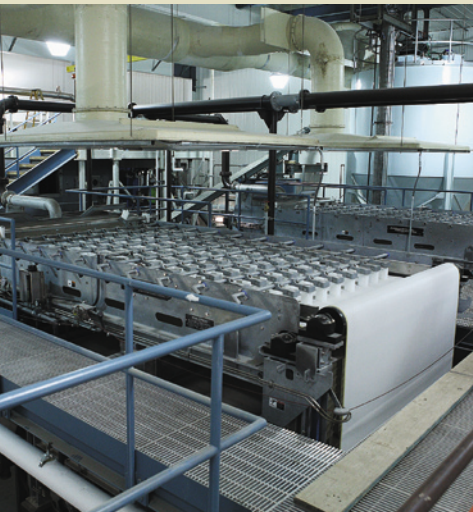
The nation's first span to deploy hybrid-composite beams (HCBs) containing fiber-reinforced plastic represents a major advancement in bridge technology. The potential use of HCBs—which feature a plastic shell containing concrete and steel reinforcement—was considered, even tested, for years, but never implemented in bridge design thanks to lingering constructability issues. The project team addressed these concerns by successfully integrating HCBs into the bearing installations as well as bracing during casting of the bridge deck. The beams weigh one-tenth as much as an equivalent prestressed concrete beam, are easier to manufacture, ship and construct and offer extended service life.



### City of Buffalo Wastewater Treatment Facility, Buffalo, Minn.

Bolton & Menk, Inc.—Mankato, Minn.

This newly designed wastewater treatment facility in Buffalo, Minn., eliminates the need to haul and dispose of wastewater biosolids by converting them into a cost-saving renewable energy source. The state-of-the-art complex captures energy from biosolids—which contain 70 percent of the Btu (energy content) of coal—through a unique belt-drying, incineration and recovery procedure. A closed-loop airtight system eliminates odors and allows for the capture of heat to be reused in a continuous drying process. The system produces up to 80 percent of the energy needed to dry the biosolids. Energy savings are expected to exceed \$90,000 the first year and reach \$500,000 by 2027.



### Woodrow Wilson Bridge Project, Md. and Va.

Potomac Crossing Consultants—a joint venture of Parsons Brinckerhoff; URS; and Rummel, Klepper & Kahl—  
Baltimore, Md.

One of the largest multi-jurisdictional projects ever undertaken in the Mid-Atlantic region replaces an outdated bridge with a state-of-the-art superstructure that eliminates one of the nation's worst traffic bottlenecks. The \$2.4 billion, 12-lane bridge features pioneering traffic congestion mitigation design with upgrades to four nearby interchanges, separate local and express lanes and capacity for future mass transit expansion. The new bridge also contains the world's largest movable span, with dual-draw span leaves weighing 2,000 tons each, and is a prototype for successful design and construction management of other mega-projects.



### Andersen Corp. Steam Generating Facility, Bayport, Minn.

TKDA—St. Paul, Minn.

Groundbreaking renewable energy provides a critical new manufacturing energy source for Minnesota's largest window producer. The new Andersen Corp. steam generating facility produces 100 percent of the manufacturing and heating steam needed for the company's 63-acre operation—completely from renewable energy. The design uses byproduct wood from the corporation's wood milling operation to fuel a system of boilers and a warm-water heat recovery process to generate steam. The combination eliminates a reliance on coal-based steam and significantly reduces energy and heating costs, especially during Minnesota's long heating season.



# GRAND AWARDS

## Lucas Oil Stadium, Indianapolis, Ind.

Walter P Moore—Houston, Texas

The new home of the National Football League's (NFL's) Indianapolis Colts features several engineering "firsts," including a movable roof that opens lengthwise and North America's largest moving glass window wall. The stadium's unique pitched roof design uses two enormous panels to create an opening of more than 176,000 square feet—the largest opening of any NFL venue. The panels are supported by an inventive rail and linkage system that safely and smoothly distributes structural stress. A 210-foot-wide, 85-foot-tall glass wall slides horizontally to reveal spectacular downtown scenery. This first in a new generation of retractable-roof multiuse facilities was recently named the site of the 2012 Super Bowl.



## Great River Energy Headquarters, Maple Grove, Minn.

Dunham Associates, Inc.—  
Minneapolis, Minn.

Pioneering geothermal design at the new Great River Energy headquarters has earned the facility LEED Platinum Certification—the highest honor for sustainable green building construction. Recent innovations include the use of nearby Arbor Lake as a geothermal heating and cooling source and an onsite photovoltaic system and wind turbine to provide renewable energy. Daylight and rainwater harvesting systems and low-flow plumbing fixtures help reduce energy consumption by 45 percent and potable water use by 89 percent.



## One Rincon Hill, San Francisco, Calif.

Magnusson Klemencic Associates—Seattle, Wash.

This new 60-story high-rise building in downtown San Francisco features a first-of-its-kind structural system that advances the engineering of tall buildings in seismic zones.

Located only eight miles from the San Andreas Fault, the skyscraper contains a concrete ductile core, four concrete outrigger columns and 16 buckling-restrained braces (BRBs) to add stiffness, absorb energy and resist buckling in an earthquake—the first use of BRBs in an all-concrete building or a high-rise residential structure in the United States. A system of water tanks—tuned mass liquid dampers—sits atop the structure to counteract wind forces. The result is a building that is safer, less expensive and a new model for tall-building design in earthquake-prone regions.



**The Lewistown Narrows, Lewistown, Pa.**  
The EADS Group, Inc.—Altoona, Pa.



One of the nation's most dangerous and congested stretches of roadway has been transformed into a safer, more accessible link between the Harrisburg, Hershey and Lewistown/State College, Pa., regions. With the Juniata River on one side and the steep, unstable slopes of Shade Mountain on the other, the Lewistown Narrows had a history of traffic bottlenecks and dangerous automobile crashes. A new

bifurcated design moved the westbound lanes 20 feet above the eastbound lanes and directly into the mountain slope. Roadway support includes nearly 9,000 26-foot-long micropiles drilled into the mountainside, combined with two mechanically stabilized median walls. The design also features nine additional walls to prevent river encroachment, three culverts and two bridges.



**U.S. 90 Over St. Louis Bay, Pass Christian, Miss.**

HNTB Corporation/Burns Cooley Dennis, Inc.—Plano, Texas

Fifteen months after the original St. Louis Bay Bridge was destroyed by Hurricane Katrina, two lanes were reopened, providing a critical connector for rebuilding Gulf Coast communities. Pre-cast foundation elements, combined with an aggressive design and construction schedule, resulted in a 24-month project completion, compared with the normal three- to five-year construction timetable. The 2.1-mile, eight-lane bridge features an 85-foot-high, 250-foot-wide navigational span clearance and shared-use paths for pedestrians and bicyclists.



**Utah State Capitol Seismic Base Isolation and Restoration, Salt Lake City, Utah**

Reaveley Engineers + Associates—Salt Lake City, Utah

Groundbreaking engineering has made the Utah State Capitol Building less vulnerable to seismic activity, despite the historic structure's close proximity to an active fault capable of producing a magnitude 7.3 earthquake. Extensive renovations to the 90-year-old structure required designers and workers to completely remove the building's original foundation without raising or lowering the building by more than one-sixteenth of an inch. Installation of 265 base isolators consisting of laminated rubber plates and steel enable the building to float above the ground during seismic activity, allowing the 300,000-square-foot building and its occupants to survive a major earthquake with few sustained injuries or damages.

**Virginia Mason Athletic Center, Renton, Wash.**

Magnusson Klemencic Associates—Seattle, Wash.

A contaminated 20-acre site on the shores of Lake Washington has been transformed into the new training home of the National Football League's Seattle Seahawks. Restoration of the former coal tar refinery and timber creosoting site included placing an eight-layer geo-grid system of materials under the practice field to cap contaminants. The design also features an on-site soil disposal berm that doubles as a spectator viewing platform, and a fish passage system to facilitate the migration of salmon. Additionally, a shoreline was restored, an existing wetland was protected, and a new beach amenity created.





# HONORAWARDS

## The Ohmi-Ohdori Bridge, Shiga Prefecture, Japan

**The Louis Berger Group/J.A. Brennan Associates—  
Washington, D.C.**

The welcome gate to the Kansai region—Japan's second-largest metro area—blends cultural aesthetics with innovative bridge technologies for a breathtaking example of artistic engineering. Located in the Shiga Nature Park, the twin 1,800-foot cable-stayed bridge features graceful curves along a bridge deck that rises above hexagonal towers built to resemble a local species of crane with outstretched wings. The curved design represents an attractive solution to traffic congestion on the Shin-Meishin Expressway.



## Shanghai World Financial Center, Shanghai, China

**Leslie E. Robertson Associates,  
R.L.L.P.—New York, N.Y.**

Critical structural engineering challenges had to be overcome prior to the completion of China's tallest—and the world's third largest—building: the Shanghai World Financial Center. Designers had to create an alternative structural plan after the developer increased the building's height and width—despite the original foundation already having been laid. To overcome this challenge, the project team designed a new, diagonal-based framing system that allowed for reuse of the existing foundation. The system also reduced the building's total weight by 10 percent—despite a 7 percent increase in height and 15 percent increase in total floor area. The innovative system expedited construction and established the 95-story structure as a major Asian landmark.



## One Bryant Park, The Bank of America Headquarters, New York, N.Y.

**Jaros Baum & Bolles—  
New York, N.Y.**

A 52-story gleaming model of green construction, the new Bank of America Headquarters in New York City combines groundbreaking technologies to achieve unprecedented levels of mechanical, electrical and plumbing sustainability. The innovative design includes a 5.1-megawatt cogeneration system that generates 50 percent of the facility's electrical and 100 percent of its winter heating energy. A unique air distribution system filters out 95 percent of particulates and chemical pollution, and a gravity-based green roof system collects, disinfects and reuses rainwater. In addition to significant cost savings, the design promotes employee health, productivity and satisfaction for one of the world's most environmentally responsible high-rise office buildings.



## 17th Street Canal Interim Closure Structure, New Orleans/Metairie, La.

**Linfield, Hunter & Junius, Inc.—Metairie, La.**

The continued recovery of New Orleans and its ability to weather future storms will depend largely on the design and execution of new floodgates built to protect the city. During Hurricane Katrina, in 2005, breached floodwalls along the 17th Street Canal resulted in significant damage. To help prevent a recurrence of the devastation, the project team combined offshore oil rig construction concepts with deep foundation technology to create a series of new floodgates at the mouth of the 17th Street Canal. The hydraulic gates close during severe weather to protect the city from flooding, while potentially damaging storm water is discharged through a special pumping system. The design has advanced the science of flood surge protection and has been adopted along two other New Orleans waterways in lieu of higher levees.



## ACEC 2009 ENGINEERING EXCELLENCE AWARDS HONORAWARDS

### Pentagon Memorial, Arlington, Va.

Alpha Corporation—Dulles, Va.

This tribute to the 184 victims who lost their lives at the Pentagon on Sept. 11, 2001, blends imaginative engineering and distinctive artistry to transform a site of tragedy into one of “solace, peace and healing.” The Pentagon Memorial features a field of 184 cantilevered forged-metal benches over glowing pools of constantly circulating water. Design challenges included a tight two-year concept-to-construction timetable, and the mitigation of unsuitable soils. The new national memorial was dedicated on Sept. 11, 2008. President George W. Bush and many of the victims’ families were in attendance.



### I-35W Bridge, Minneapolis, Minn.

FIGG Bridge Engineers, Inc.—Tallahassee, Fla.

The new I-35W Bridge is one of the world’s most technologically advanced bridges, despite being completed in just 339 days—more than three months ahead of schedule.

Constructed on the site of the original bridge’s collapse, the new 10-lane Mississippi River crossing features advanced “smart bridge” technology with 323 sensors to monitor corrosion levels, in addition to surface deck and expansion joint conditions. Community input determined the bridge’s color, curved pier shape, feature lighting, railing and abutment walls, which are faced with native stone to blend with the river’s natural environment.



### Leachate Treatment Goes “GREEN” With PHYTO, St. Louis, Mo.

Leggette, Brashears & Graham, Inc.—St. Paul, Minn.

A landmark approach for disposing landfill leachate incorporates hybrid poplar trees to eliminate the waste liquid’s impact on the surrounding environment. The project team designed and applied a two-step process called “phytoremediation” to address the more than 2.5 million gallons of landfill leachate produced each year. The process involves pretreatment of the liquids with a hydrogen peroxide solution. The fluids are then piped through a distribution network to a six-acre field containing 2,100 newly planted poplar trees. The trees absorb the leachate over time through a drip irrigation system, thus eliminating the need to load and dump millions of gallons of leachate into the sewer system. The project is expected to advance regulatory acceptance of phytoremediation nationwide.

### Grand Avenue Bus Depot and Central Maintenance Facility, New York, N.Y.

Gannett Fleming Engineers and Architects, P.C.—New York, N.Y.

A 550,000-square-foot bus depot and central maintenance facility sets a new standard for urban fleet warehousing with its state-of-the-art sustainable features. The project team’s design emphasized vertical construction, rather than horizontal, to address limited land accessibility. The result is a two-level facility with space for fueling, maintaining, cleaning and storing 200 buses indoors. Sustainable features include a 200,000-gallon



underground tank to collect rainwater for vehicle washing and zero-emission painting booths to reduce the spread of contaminants. Thirty-four roof-mounted ventilation and heat recovery units reduce heating energy costs by nearly 50 percent.



# HONORAWARDS

## Marina Barrage and Reservoir, Singapore, Republic of Singapore

CDM—Cambridge, Mass.

Born from a series of tidal flats and old river estuaries, this 595-acre, 2.5-billion-gallon reservoir controls flooding, augments water supply and provides an attractive downtown recreation destination for the island nation of Singapore. The project features a 1,150-foot-long tidal barrage containing nine 77-ton hydraulically operated steel crest gates. Seven drainage pumps, each capable of pumping 60,000 gallons per second, work with the gates to maintain reservoir levels. The new fresh-water resource is created through a natural flushing of the formerly saline basin. The site is further enhanced by a boat hoist, an interactive visitor's center and 22,000 square feet of public art space.



## Red Mountain Freeway, Mesa, Ariz.

Stanley Consultants, Inc.—Phoenix, Ariz.

Designers of this 4.8-mile freeway link, completed at a 61-degree angle over canal and flood-retarding structures, faced a difficult challenge: They had to build it without installing bridge piers or other foundation structures in the canal, which was prohibited. Their solution: a series of pre-cast, concrete straddle girder sub-structures used to intercept loads above the canal and transfer the weight to drilled shafts along its banks. Cost savings generated by the design were reinvested into the project and used to construct additional general-use lanes on the bridge.



PHOTO COURTESY OF FRIENDS OF THE HIGH LINE

## The High Line Project, New York, N.Y.

HDR Engineering, Inc.—New York, N.Y.

An abandoned elevated rail structure in downtown Manhattan has been transformed into a 30-foot-high grassy public recreation space offering panoramic views of scenic urban life. Unused since 1980, the 22-block, 1.5-mile High Line was destined for demolition until railroad enthusiast Peter Obletz saved the relic for its current refurbishment. The renovation features new drainage, power supply, lighting, water supply and irrigation systems; installation of pre-cast concrete planks for walking; reuse of the original rails as design elements; and planting of native greenery. Visitors can now move between Penn Station, Hudson River Park, the Javits Convention Center and the Gansevoort Market Historic District without encountering a single car or truck.

## S.W. Minnesota Wind Transmission Upgrade Project, Worthington, Minn.

Burns & McDonnell Engineering Co., Inc.—Kansas City, Mo.

Extreme environmental conditions and logistical challenges were overcome during the construction of this 126-mile high-voltage transmission line, which delivers 825 megawatts of wind energy power to the national electrical grid. The project required right-of-way/easement acquisition from 450 landowners and installation of 14,000 tons of transmission-line steel structures, including three transformers, two new substations and three substation expansions. Facilities are built to withstand the extreme wind and winter conditions common to the Minnesota/South Dakota region. The project is a model for delivering renewable energy long distances from its source to a point of need.





# 2009 EEA NATIONAL FINALISTS

FIRM NAME	PROJECT NAME
<b>ACEC/ALABAMA</b> Malcolm Pirnie	Big Creek Lake Dam Rehabilitation of Spillway and Stilling Basin
<b>ACEC/ARIZONA</b> Gannett Fleming	Strengthening a Bridge, Connecting a City
Kennedy/Jenks Consultants	Sustainable Drainage Solution "Beats the Heat"
Malcolm Pirnie	Scottsdale CAP WTP GAC Adsorption Facility
Stanley Consultants	Red Mountain Freeway—Power Road to University Drive
<b>ACEC/ARKANSAS</b> Crafton Tull Sparks	Bentonville Storm Sewer Inventory & Mapping GIS
McGoodwin, Williams and Yates	Fayetteville West Side Wastewater Treatment Plant
<b>ACEC/CALIFORNIA</b> CDM	Orange County Groundwater Replenishment System
Degenkolb Engineers	MSB Moffit Separation Project
HNTB	The South Airfield Improvement Programs
International Bridge Technologies	Sound Transit Central Link Light Rail, Tukwila Segment
Kennedy/Jenks Consultants	GREAT Program Desalter
Mead & Hunt	Runway Extension with EMAS
Penfield & Smith	Triple Boundary Survey
Winzler & Kelly	North Napa Bypass Sewer & Siphon Project
<b>ACEC/COLORADO</b> CH2M HILL	Colorado Springs Metro Interstate Expansion (COSMIX™)
CH2M HILL	Demonstration of Natural Purification for the Prairie Waters Project
M-E Engineers	Washington Nationals Park
Merrick & Company	Binational Geospatial Teamwork
MKK Consulting Engineers	Saves Lives and Property Signature Centre—The Highest Mark of Sustainability
URS Corporation	Carter Lake Dam No. 1 Outlet Works Addition
<b>ACEC/CONNECTICUT</b> George Torello Engineers	Restoration of LIFE STAR Rooftop Heliport
Tighe & Bond	Palmer Dam Rehabilitation Project



The Signature Centre in Golden, Colo., which received highest honors for sustainable construction, was designed by 2009 EEA National Finalist MKK Consulting Engineers, Inc., of Greenwood Village, Colo.

FIRM NAME	PROJECT NAME
<b>ACEC/DELAWARE</b> George, Miles & Buhr	Howard H. Seymour Water Reclamation Plant Membrane and BNR Upgrade
<b>ACEC/FLORIDA</b> Bermello Ajamil & Partners CDM	The World Lantana Road Landfill/Park Ridge Golf Course
Erdman Anthony Jones Edmunds & Associates	SR A1A Turtle Lighting H. Clay "Junk" Whaley Sr. Water Plant
Reynolds, Smith and Hills Reynolds, Smith and Hills Stanley Consultants Taylor Engineering	95 Express Microsimulation Mathews Bridge Deck Replacement Golden Gate Parkway Overpass S-65E Emergency Tailwater Structure
The URS-HNTB Joint Venture	I-4/SR 408 Interchange Design
<b>ACEC/GEORGIA</b> Kimley-Horn and Associates	Pleasant Hill Road/Norfolk Southern Grade Separation
Metcalf & Eddy/S L King Joint Venture	Atlanta West Area CSO Treatment Plant
<b>ACEC/HAWAII</b> Belt Collins Hawaii in conjunction with Earth Tech/Parsons Brinckerhoff/R.M. Towill Corp. Yogi Kwong Engineers	Palau Compact Road  Emergency Water Tunnel Intake Repair, Waipio Canyons, Hawaii
<b>ACEC/IDAHO</b> CH2M HILL GeoEngineers WHPacific	Rainbow Bridge Restoration 45 Ranch Habitat Restoration I-84, Franklin Road Interchange, Caldwell, Idaho
<b>ACEC/ILLINOIS</b> Hanson Professional Services	Union Station: Restoring a Timeless Treasure
Henneman Engineering Metropolitan Aviation Partners Joint Venture Parsons Strand Associates	Upgrade of HVAC Systems-Phase I Runway 10L Extension  U.S. 90 Bridge Over Biloxi Bay Safer Water Quality and Supply for Joliet, Ill.
Teng & Associates	High Road Bridge Over Long Run Creek
Teng & Associates	Maple-Oregon Bridge Over Sturgeon Bay
TY Lin International/CTE/ Bowman, Barrett & Associates V3 Companies of Illinois	F.A.I. I-94/90 (Dan Ryan Expressway) Reconstruction Project Nouveau Kiskewa Water Supply Development
<b>ACEC/KANSAS</b> Black & Veatch	Tomahawk Bridge and Road Improvements
Burns & McDonnell Engineering	ONEOK—Bushton Fractionator Capacity Upgrade
Parsons Brinckerhoff	13th Street Historic Bridge Preservation
TranSystems	Raising the Rail
<b>ACEC/KENTUCKY</b> GRW Engineers	Eastern Regional Water Reclamation Facility
HMB Professional Engineers	Holmes Street—48-inch Storm Sewer by Microtunneling
Kenvirons	Wood Creek Water District Regional Water Treatment Plant
Malcolm Pirnie	Campbellsville, Ky., Landfill Closure
WMB	I-275 Pavement Rehabilitation



Bermello Ajamil & Partners, Inc., of Miami, Fla., was a 2009 EEA National Finalist for The World, located in Dubai, UAE.

#### ACEC/LOUISIANA

Associated Design Group  
Linfield, Hunter & Junius

Louisiana Superdome  
17th Street Canal Interim Closure  
Structure

#### ACEC/MAINE

Woodard & Curran

Ocean Gateway

#### ACEC/MARYLAND

EA Engineering, Science and  
Technology  
Potomac Crossing Consultants—  
a Joint Venture of Parsons  
Brinckerhoff; URS; and Rummel,  
Klepper & Kahl

Anacostia East Wetland Restoration  
Project  
Woodrow Wilson Bridge Project

#### ACEC/MASSACHUSETTS

CDM

Marina Barrage and Reservoir

#### ACEC/METROPOLITAN WASHINGTON

AECOM Design  
Alpha Corporation  
CH2M HILL

Butterfly Pavilion  
Pentagon Memorial  
Broad Run Water Reclamation  
Facility

Metcalf & Eddy/AECOM

Blue Plains Total Nitrogen  
Removal/Wet Weather Plan

Michael Baker Jr.  
Robert Silman Associates

National Flood Hazard Layer  
Virginia State Capitol  
Modernization & Renovation

#### ACEC/MICHIGAN

NTH Consultants

The Detroit River International  
Crossing  
U.S. 141-MDOT Design Survey  
I-96/36th Street Interchange  
Van Buren Equalization Basin and  
Force Main

Spicer Group  
URS Corporation Great Lakes  
Wade Trim

#### ACEC/MINNESOTA

Bolton & Menk

City of Buffalo Wastewater  
Treatment Facility  
S.W. Minnesota Wind Transmission  
Upgrade Project  
Xcel Energy High Bridge  
Combined Cycle Project

Burns & McDonnell Engineering  
Company  
CH2M HILL

Innovative Parallel Treatment with  
MBR System

Donohue & Associates

Great River Energy Headquarters  
I-35W Bridge  
Leachate Treatment Goes  
“GREEN” with PHYTO  
Andersen Corporation Steam  
Generating Facility  
Intermediate District 287 South  
Education Center

Dunham Associates  
FIGG Bridge Engineers  
Leggette, Brashears & Graham

TKDA

TSP

#### ACEC/MISSISSIPPI

HNTB/Burns Cooley Dennis

U.S. 90 Over St. Louis Bay

## 2009 EEA NATIONAL FINALISTS

### FIRM NAME

### PROJECT NAME

#### ACEC/MISSOURI

CH2M HILL

GeoEngineers

HNTB

TranSystems  
Walter P Moore

Lower Meramec River Wastewater  
Treatment Facility Improvements  
World Record HDD Shore  
Approach-New Oil Export Line  
Three Trails Memorial Crossing  
(The Triangle)  
Missouri Riverfront Trail  
Sprint Center Arena

#### ACEC/MONTANA

CDM

Libby Asbestos Emergency  
Response

#### ACEC/NEBRASKA

HDR

Platte West WTP-Water Reliability  
for Metro Omaha

#### ACEC/NEVADA

Black & Veatch

SNWA Water Quality Lab and  
Applied R&D Center  
Las Vegas Strip Pedestrian Bridges  
The Ohmi-Ohdori Bridge

The Louis Berger Group  
The Louis Berger Group/J.A.  
Brennan Associates



The Sprint Center Arena in Kansas City, Mo., was designed by 2009 EEA National Finalist Walter P Moore.

#### ACEC/NEW JERSEY

CH2M HILL

Gannett Fleming

Gannett Fleming

Hatch Mott MacDonald

Langan Engineering &  
Environmental Services

Langan Engineering &  
Environmental Services  
Malcolm Pirnie

Stantec Consulting Services

Rapid Revitalization of Dye  
Manufacturing Site  
Canal Road Water Treatment Plant  
Expansion  
Interconnection Study: Mitigation  
of Water Supply Emergencies  
New Brunswick Water Treatment  
Plant Improvements  
Atlantic Health JETS Training  
Center  
J Ponds Insitu Stabilization/  
Solidification  
Rehabilitation of Oxygenation  
Tanks  
Rt. 46/Rt. 23/I-80 Interchange  
Improvements

ACEC/NEW YORK  
Dagher Engineering

DeSimone Consulting Engineers  
Ecology and Environment  
Engineering  
Erdman Anthony

Gannett Fleming

Hardesty & Hanover

Compressor-Free Geothermal  
Cooling System  
The Standard  
LEED® Platinum Certification of  
Existing Corporate Headquarters  
Kodak Footprint Reduction  
Program  
Grand Avenue Bus Depot and  
Central Maintenance Facility  
Reconstruction of Grand Concourse  
Over East 161st Street & Grand  
Concourse



# 2009 EEA NATIONAL FINALISTS

FIRM NAME	PROJECT NAME
HDR	The High Line Project
Holzmacher, McLendon & Murrell	Wastewater Treatment Plant Reconstruction
Jaros Baum & Bolles	One Bryant Park, The Bank of America Headquarters
Langan Engineering & Environmental Services	Pier 17 Redevelopment
Leslie E. Robertson Associates	Shanghai World Financial Center
Mueser Rutledge Consulting Engineers	Foundations for the New York Law School Expansion
Sam Schwartz Engineering	Greenlink Windsor Transportation Land Use Planning
Stantec Consulting Services	Interstate 86/U.S. Route 15 Interchange
STV	The New York City Waterfalls
Tectonic Engineering & Surveying Consultants	Reconstruction of Beekman Street in Manhattan
WSP SELLS	Maturity Testing for Bridge Deck Rapid Replacement
<b>ACEC/NORTH CAROLINA</b>	
McKim & Creed	Cannonsgate at Bogue Sound Reclaimed Water
Stantec Consulting Services	Wet Lab LaunchPad™
STV/Ralph Whitehead Associates	South Corridor Light Rail Transit ("LYNX" Blue Line)
<b>ACEC/NORTH DAKOTA</b>	
Moore Engineering	Part #1-Effluent Reuse Facility-Fargo WWTP
<b>ACEC/OHIO</b>	
Jones-Stuckey	Broadmeadows Bridge: Olentangy Trail Connector
Malcolm Pirnie	Baldwin Water Works Plant Enhancement
Malcolm Pirnie	Columbus Southerly WWTP Headworks
Wade Trim	NEORSO Southerly CSO Early Action Project 2C
Woolpert	FAA-Airport Survey/GIS Standards and Development
<b>ACEC/OKLAHOMA</b>	
Mehlburger Brawley/Brawley Engineering Corporation/W2M Consulting	Dr. GE Finley Bridge (Walnut Avenue-Bricktown)
The Benham Companies	Ardmore Co-Composting Facility
<b>ACEC/OREGON</b>	
HW Lochner	U.S. 101: Spencer Creek Bridge
Kennedy/Jenks Consultants	ACWA Energy Independence Project
KPFF Consulting Engineers	Providence Cancer Center
PAE Consulting Engineers	The Columbian Office Building



Robert Silman Associates of Washington, D.C., was a 2009 EEA National Finalist for the modernization and renovation of the Virginia State Capitol in Richmond.

FIRM NAME	PROJECT NAME
<b>ACEC/PENNSYLVANIA</b>	
Century Engineering	Gettysburg Battlefield Museum and Visitor's Center
Gannett Fleming	Forest Park Water Treatment Plant Expansion
Gannett Fleming	Route 309, Fort Washington Interchange
Michael Baker Jr.	Accurate Coordinate Datasets Collection (ACDC)
The EADS Group	The Lewistown Narrows
<b>ACEC/SOUTH CAROLINA</b>	
Black & Veatch/Hussey, Gay, Bell & DeYoung	Sewer Tunnel Replacement Program
BP Barber	New 24" Water Transmission Line
Florence & Hutcheson	SC 6 and SC 60 Widening Over Lake Murray Dam
The LPA Group Incorporated	Darlington Raceway Track and Tunnel
The LPA Group Incorporated in association with Wilbur Smith Associates	I-73 in South Carolina (EIS)
<b>ACEC/SOUTH DAKOTA</b>	
Howard R. Green Company	Cliff Avenue Corridor Improvements
<b>ACEC/UTAH</b>	
Malcolm Pirnie	Enhanced Use Lease Development at Hill AFB
Michael Baker Jr.	4500 South Over I-215 Bridge Replacement
Parsons	Weber County to Salt Lake Commuter Rail
Parsons Brinckerhoff	I-15 Utah County/Salt Lake County EIS Project
Reaveley Engineers + Associates	Utah State Capitol Seismic Base Isolation and Restoration
<b>ACEC/VIRGINIA</b>	
Clark Nexsen Architecture and Engineering	Half Moore Cruise and Celebration Center
<b>ACEC/WASHINGTON</b>	
Hatch Mott MacDonald	Section 755 S. Boeing Access Road to S. 154th Street
KPG	Shoreline Recycling and Transfer Station
Magnusson Klemencic Associates	One Rincon Hill
Magnusson Klemencic Associates	Virginia Mason Athletic Center
Parsons Brinckerhoff	Sound Transit 2-Regional Transit System Plan
Wood Harbinger	Aeroman Aircraft Maintenance Facility
<b>ACEC/WISCONSIN</b>	
AECOM	The Beach is Back!
HNTB	Milwaukee Metropolitan Sewerage District 2020 Facilities Plan
<b>CEC/TEXAS</b>	
CP&Y	Del Rio Drainage Ditch Study
Freese and Nichols	Eagle Mountain Connection
Freese and Nichols	Hydrologic/Hydraulic Guidelines for Texas Dams
Freese and Nichols	The Colony Wastewater Treatment Improvements
HDR	Gulf Marine Fabricators' Ingleside Yard Graving Dock
Klotz Associates	Bayport Terminal Phase I Container Yard
Reynolds, Smith and Hills	I-10/I-610 Interchange Reconstruction
URS Corporation (formerly LOPEZGARCIA GROUP)	City of Fort Worth, Texas, Historic Resources Survey
Walter P Moore	Lucas Oil Stadium

## 2009 EEA JUDGES

ACEC thanks the 2009 Engineering Excellence Awards Judges for their time and dedication to this year's competition.

**Heidi Hamilton**  
Chief Judge  
Deputy Director, Public Works  
City of Minneapolis

**Bradley F. Aldrich**  
Vice President  
Forcier Aldrich & Associates

**Arthur Barsema**  
Director, External Affairs and  
Large Customer Services  
Commonwealth Edison Company

**Wylie Bearup**  
Interim Street Transportation  
Director  
City of Phoenix

**Linda Bridwell**  
Manager, Water Supply  
Kentucky American Water

**Wayne Brown**  
Transportation Commissioner,  
Southern District  
Mississippi Department of  
Transportation

**Mike G. Chapman**  
Senior Architect, Capital  
Improvements  
Naval Facilities Engineering  
Command

**Connie Crawford**  
Senior Vice President and Chief  
Engineer  
MTA New York City Transit

**Rina Cutler**  
Deputy Mayor  
City of Philadelphia

**Arthur B. deWit**  
CEO  
Baete-Forseth HVAC

**Christopher M. Gordon**  
Chief Operating Officer  
Harvard's Allston Development  
Group  
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**Patrick Leahy**  
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**Fred Lebed**  
President  
Burris & Lebed Consulting,  
LLC



EEA judges review  
award entries  
during February  
deliberations.

**Lewis "Ed" Link**  
Senior Research Engineer  
Department of Civil and  
Environmental Engineering  
University of Maryland

**Marjorie Melton**  
President, Board of Public Service  
City of St. Louis, Mo.

**Karl Miller**  
Executive Manager, Power Group  
Kenny Construction Company

**Eric Mills**  
Western Regional Operations  
Manager  
ECO Resources/Southwest  
Water Company

**Glen Mowery**  
Director, Utilities and Energy  
Management  
University of Iowa

**Patrick J. Natale**  
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American Society of Civil  
Engineers

**Mark C. Nelson**  
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Division of Capital Asset  
Management  
Commonwealth of Massachusetts

**Helyne S. Noyes**  
Manager, Distribution  
Engineering  
Los Angeles Department of  
Water and Power

**Kathleen O'Brien**  
Vice President, University  
Services  
University of Minnesota

**Anne Papageorge**  
Vice President, Facilities and  
Real Estate Services  
University of Pennsylvania

**Nadine M. Post**  
Editor-at-Large  
*Engineering News-Record*

**Ray Raposa**  
Executive Director  
New England Water Works  
Association

**Douglas Selby**  
Former City Manager  
City of Las Vegas

**David V. Shuter**  
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Facilities & Project Development  
Los Angeles World Airports

**Steven L. Stockton**  
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U.S. Army Corps of Engineers

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City of Omaha, Neb.

**Joe Superneau**  
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Water and Sewer Commission

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Walter P Moore

Thank  
You







# Taking the Pain Out of Permits

By Alan Joch

**Effective strategies needed to address often complex web of regulations and requirements**

**W**hen Duffield Associates was hired five years ago to help build a championship golf course on the banks of a protected creek in Delaware, the firm knew it would have to get creative.

A host of local, state and federal authorities, as well as citizens' groups, were actively involved in the permitting process for the White Clay Creek Country Club, because the proposed facility would affect the creek's floodplain and nearby forests and wetlands.

"It was one of the granddaddies of permitting efforts because of the multiple agencies that were involved, and because their goals were sometimes at odds with each other," recalls Jeff Bross, chairman and senior consultant with Duffield, based in Wilmington, Del.

Duffield signed on nine months into the project to guide the permit-approval process. In another nine months, developers had the necessary agreements in place, and last year the project was completed.

Bross views the finished product as a shining example of what can happen when engineers actively solicit feedback from all

interested public and private parties early in the design process. "While some regulatory groups would rather see you not do the development, you can at least mitigate their objection to the project if you can show you're potentially creating a better situation," he says. "Sometimes they might actually endorse it."

Engineering firms throughout the nation are taking similarly proactive approaches to permitting, as new requirements and increasingly complex approval processes demand clearer strategies. In some cases, firms spend more time and larger percentages of project budgets to gather approvals,

**W**hile some regulatory groups would rather see you not do the development, you can at least mitigate their objection to the project if you can show you are potentially creating a better situation.

JEFF BROSS  
DUFFIELD



with permitting costs accounting for 5 to 35 percent of a project's total, depending on its complexity and variances.

As the permitting process evolves, so do the strategies firms employ to satisfy clients and regulators.



## Manageable Pieces

Faced with large, multi-jurisdictional projects, some engineering firms find success with a multistage approach that breaks complex development projects into manageable pieces.

Pasadena, Calif.-based Parsons employed such a strategy in 2007 when it signed on to help create a new freeway extending from Montreal, Quebec, to Laval, an island suburb to the north. Regulatory approvals were stalled after protests arose over the roadway's potential impact on the Rivière des Prairies, a prime spawning ground for sturgeon, a highly protected fish species in the region.

After analyzing the challenges of obtaining the necessary approvals from Montreal, Laval, provincial and federal authorities, and environmental agencies, Parsons decided to take an unorthodox approach. "There was no way we would receive a blanket permit that would cover the entire project," says Régine Beauboeuf, a Parsons vice president. "So we tailored

the permit applications to three major construction segments—the segment in Montreal and all of its various jurisdictions, the Laval segment and one for the river itself."

The stakes were high from the start. After Parsons signed the contract to participate in the project, it had only a month to get the first critical permit approval, which would allow construction teams to install the river pylons. "You can't work in the river from April to August because of the sturgeon, so we needed the permit at the end of February or early March so we had time to build what we needed to by April. Otherwise, we would have to wait until September," Beauboeuf says. A six-month delay would mean unnecessary costs and penalties for missed milestones.

But there was a catch-22. The provincial environmental agency, known for imposing the strictest requirements, became the focal point for Parsons' early permitting strategies. The agency wanted the developers to delay their formal application until all the relevant municipalities

reviewed and agreed upon the construction plan.

So Parsons created an interdisciplinary team of specialists in environmental issues, design, construction, local government and other areas. The firm appointed two point people—one of them Beauboeuf—chosen for their skills in working with government counterparts.

The company eventually persuaded the environmental agency to review the proposal in tandem with city officials. Although the agency wouldn't formally agree to the plan until city approvals were obtained, Parsons saved time. "The minute the approval came from the city, the environmental authorities were ready to sign on the dotted line," Beauboeuf explains.

The efforts paid off. The first phase of bridge construction was timed prior to the arrival of migrating sturgeon. Now, midway through construction, Parsons is working to obtain additional permits for succeeding phases of the freeway's construction.

## Common Permitting Challenges and Effective Solutions

**E**ngineering firms employ a variety of strategies to tackle permitting challenges such as breaking down complex approval processes into manageable pieces and meeting frequently with regulators. Following are just a few examples:

**Problem:** The continuing onslaught of new rules makes it difficult to keep pace with regulatory changes.

**Solution:** Participate with regulatory agencies that develop new laws. When the city of Boston began drafting new rules to protect groundwater levels, John Schmid, senior project manager at Boston-based Nitsch Engineering, consulted with officials. "Regu-

latory people often look for consultants to help guide them in attaining their goals," he says. "We can bring a sense of practicality" to the development process. The good news: Subsequent referrals may result. "Consulting helps us promote and market ourselves, as well as educate ourselves about new laws. There's a double benefit," he says.

**Problem:** Regulatory officials can be slow to act on permit applications, which extend deadlines and can sabotage clients' preliminary financing and purchase agreements.

**Solution:** Engineering firms don't have direct control over agency turnaround when it comes to approvals, but they

can work to eliminate unnecessary delays. "Don't make any assumptions on the front end about regulatory requirements," says Stephen Brown, senior associate at Nashville's Gresham, Smith and Partners. "Meet with the agencies, know what their hot buttons are and spend the time on the front end to gain an understanding of their expectations," he explains. "Rather than being quick to hop into the drawing, design and construction document...make sure you do your legwork on the front end."

**Problem:** Undocumented or outdated approval-process requirements lead to frustrations and project delays.

**Solution:** Create internal

**M**eet with the agencies, know what their hot buttons are and spend the time on the front end to gain an understanding of their expectations.

STEPHEN BROWN  
GRESHAM, SMITH AND PARTNERS



**T**here was no way we would receive a blanket permit that would cover the entire project. So we tailored the permit applications to three major construction segments.

RÉGINE BEAUBOEUF  
PARSONS



### Early Involvement

For the Delaware golf course, a waterway, not sturgeon, complicated Duffield Associates' attempts to obtain approvals for the White Clay Creek Country Club.

Duffield contacted all of the agencies with permitting oversight for the protected area to solicit its concerns. It also reached out to local civic organizations and chap-

ters of national environmental groups for additional input.

The talks resulted in a broad list of issues, including key regulatory roadblocks about building within a regulated floodplain and objections to encroaching on wetlands, which would force the firm to play nicely with local, state and federal agencies. The company devised a multifaceted approach by focusing its early permitting efforts on federal agencies, which were most concerned about damage to wetlands. Duffield reasoned that it could use federal approvals as subsequent bargaining power with state and local agencies.

To ease federal fears about wetlands damage, the firm proposed a series of tradeoffs. "For every square foot of wetlands we impacted, we tried to create three square feet of new wetland," Bross says. "To do that, our scientists and engineers resculpted and revegetated the land under an elaborate process that was closely monitored by the regulatory agencies."

Second, Duffield found ways to keep

changes in the floodplain from creating new water problems for neighbors. In some cases, the goals complemented each other. "We created some additional wetlands adjacent to the stream, which also allowed us to create more floodplain. For every cubic yard of fill we put in the floodplain, our goal was to take a yard and a half out of the floodplain somewhere else," Bross says. While the goal wasn't always attainable, the developers didn't compound flooding problems and, in some cases, achieved an improvement, according to Bross.

"There are some people who believe that it's dangerous to reach out too early to approval agencies and advocacy groups because all you'd be doing is inviting more attention," he says. "But we think early and effective outreach is a must. That kind of collaboration is essential in getting approvals in today's rigorous permitting environment." ■

*Alan Joch is a business writer based in Franconia, N.H.*

checklists of each agency's requirements. One municipal planning group in Nashville gives engineers a multipage list of requirements for site-plan approvals. Unfortunately, as Brown points out, that list excludes the first major approval hurdle—a favorable "sufficiency review" by a related agency that oversees storm-water management. "That's not anywhere on the checklist," he says. "So we have our own permitting matrix above and beyond anything the agency puts out. Every time we run across a new problem, we get it written down and documented."

**Problem:** Strict interpretations of regulations can cause agencies to disregard

**proposals that meet the spirit, if not the letter, of the law.**

**Solution:** Negotiate with regulators to reconcile developer wish lists with regulatory realities. Stantec, in Topsham, Maine, recently used this approach to gain approval for a plan to develop a 40-acre tract near protected wetlands.

"If you read the regulations very strictly, the development wouldn't have been allowed. But when you looked at it from a more realistic standpoint, it was obvious that the wetlands that the regulations were trying to protect wouldn't be affected by the way the developer was going to approach the project," says Doug Stewart, a wetlands scientist and Stantec's principal in envi-

ronmental management. "Over a long period of time, going back and forth, regulators were able to hear our concerns."

In addition to negotiations with regulators, Stewart presented agency heads with detailed analyses, based on field studies, which showed that filling relatively low-value wetlands for development wouldn't negatively impact higher-value areas.

**Problem:** Large, multiyear projects on a single tract of land might require a series of approval requests, often involving the same regulatory bodies.

**Solution:** Investigate the legal and practical implications of a master plan for ongoing improvements.

Earlier this decade, Nitsch Engineering created a storm-water master plan for the University of Virginia by working with city, state and university stakeholders. "Part of the strategy was to address the problems the university had with maintaining all the individual storm-water management facilities for each one of the projects on campus," says Nicole Holmes, project manager. "It wanted to centralize facilities to decrease maintenance demands."

Over the past six years, approvals related to storm-water issues have been streamlined, Holmes says. "It's been far less intense than if the university continued to apply for permits on an individual basis."



### On The Move



CDM executive management team from left to right: Paul R. Brown, Paul G. Camell, Richard D. Fox (seated), John D. Manning

CDM announced a new executive management team: **Richard D. Fox** is chief executive officer and chairman of the board; **John D. Manning** is president and chief operating officer; **Paul G. Camell** is executive vice president for mergers and acquisitions; and **Paul R. Brown** is executive vice president for global market development.



Steve A. Larson

**Baxter & Woodman, Inc.** appointed **Steve A. Larson** president and chief executive officer upon the retirement of **Darrel R. Gavle**. Larson's previous positions in the firm have included vice president and chief marketing officer. He also manages one of the firm's nine regional offices.



John Carrato

Chicago-based **Alfred Benesch & Company** has named **John Carrato** president and chief executive officer and **John "Jack" Kweder** chief operating officer. Former executives Michael Goodkind, Antoine Karam and Muthiah Kasi will remain at the firm.



Milo E. Rivero

**Milo E. Rivero** was appointed president of **STV**. Rivero, who will report directly to Chairman and CEO Dominick M. Servedio, will oversee four operating divisions.

Engineering consulting firm **Greenhorne & O'Mara, Inc. (G&O)** promoted **Vince DiCamillo** to senior vice president, water & environment, and will manage the firm's new FEMA Risk MAP project.



Vince DiCamillo

**URS Corporation** named **Joseph Hegna** a vice president and manager of its Alaska operations.

**Black & Veatch** named **Fredrik Winterlind** vice president of corporate marketing, branding and communications within the firm's strategic sales and marketing division.



Joseph Hegna

**Stephen B. Gerlach** and **Steven I. Hawtof** were named vice presidents with **Gannett Fleming Engineers and Architects, P.C.**, an affiliated company of **Gannett Fleming**. Gerlach is manager of the environmental facilities design group and Hawtof is manager of the transportation group.



Fredrik Winterlind

## Welcome New Member Firms

### ACEC/California

**Alta Vista Solutions, Inc.,** Elk Grove  
**Frank M. Booth, D.B.C.,** Granite Bay  
**Ifland Engineers, Inc.,** Santa Cruz  
**Narwhal Enterprises, Inc.,** Salinas  
**Saxon Engineering Services, Inc.,** San Clemente  
**Stoney-Miller Consultants,** Irvine

### ACEC/Colorado

**Civil Water Solutions, LLC,** Highlands Ranch  
**Collins Engineers, Inc.,** Boulder  
**Gauthiere Engineering, Inc.,** Greeley  
**Landesign Consulting Engineers,** Grand Junction

### ACEC/Delaware

**Adeptveo, Inc.,** Harbeson

### ACEC/Illinois

**GSG Consultants, Inc.,** Chicago  
**HMS Engineering,** Chicago  
**Rubinos & Mesia Engineers, Inc.,** Chicago

### ACEC/Indiana

**Resource International, Inc.,** dba RI, Inc., Indianapolis  
**Stormwater & Floodplain Engineering, LLC,** Indianapolis

### ACEC/Kansas

**Foundation Testing and Consulting, LLC,** Overland Park

### ACEC/Louisiana

**All South Consulting Engineers, LLC,** Metairie  
**Moore Engineering Enterprises, LLC,** Alexandria

### ACEC/Massachusetts

**Lamson Engineering Corporation,** Newton  
**Surveying and Mapping Consultants,** Braintree  
**Traffic Solutions, LLC,** Boston

### ACEC/Metro

**Washington Holbert Apple Associates, Inc.,** Olney, Md.  
**Rathgeber/Goss Associates, P.C.,** Rockville, Md.  
**SNG Engineering Inc.,** Gaithersburg, Md.

### ACEC/Michigan

**5 Star Engineering, P.C.,** Southfield  
**LC Engineering, LL,** Plymouth

### ACEC/Mississippi

**Pritchett Engineering & Planning, LLC,** Flowood

### ACEC/North Carolina

**MI Engineering, PLLC,** Raleigh

### ACEC/Oklahoma

**Smith Roberts Baldischwiler, LLC,** Oklahoma City

### ACEC/Oregon

**Cooper Zietz Engineers, Inc.,** Portland  
**Jacobs Associates,** Portland  
**Ridge Engineering, LLC,** North Plains  
**West Yost Associates,** Tualatin

### ACEC/Tennessee

**Mazzetti & Associates,** Nashville

### ACEC/Washington

**Anchor Environmental, LLC,** Kirkland  
**Cary Kopczynski & Co., Inc., P.S.,** Bellevue  
**Haley & Aldrich, Inc.,** Seattle

**HDJ Design Group, PLLC,** Vancouver  
**KPG, Inc.,** Seattle

### ACEC/Wisconsin

**REI Engineering, Inc.,** Wausau

### ACEC/Wyoming

**Environmental & Civil Solutions, LLC,** Buffalo

### CEC/Texas

**ESSCO International, Inc.,** El Paso  
**MJB Engineering,** Katy

## DEL RIO, TEXAS

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## Awards

**B**lack & Veatch won two Institution of Civil Engineers' (ICE) London Merit Awards for its role in the Hampton Advanced Water Treatment Work Rapid Gravity Filtration (RGF) Remodelling Project. The firm served as principal contractor and was responsible for detailed design, construction and commissioning services.

The upgrade project, which supplies one-third of London's drinking water, was awarded the ICE London Merit Award for Conservation and the ICE London Merit Award for the Greatest Contribution to London. The London Merit Awards celebrate outstanding civil engineering achievement, innovation and ingenuity.

Andrew Greenway, contracts manager for Black & Veatch, said, "Sustainability is one of the key features of the Hampton RGF Remodelling Project. The remodelling of 70-year-old filters, rather than adopting the original new build solution, significantly reduced the environmental impacts associated with the construction of a new plant of this capacity."



Aerial view of Hampton Advanced Water Treatment Work (AWTW) Rapid Gravity Filtration (RGF) Remodelling Project in London.

## Mergers & Acquisitions

**K**CI Technologies, Inc. has acquired **Jacobs Environmental, Inc.**, a Maryland-based company specializing in industrial hygiene, environmental compliance, occupational safety and health, and toxicology.

Jacobs' employees now work from KCI's corporate headquarters. The move allows KCI to expand its environmental services practice, as well as its industrial and private-sector client base.

Bruce W. Jacobs, founder of Jacobs Environmental, now serves KCI as a certified industrial hygienist and assists in expanding the firm's environmental, health and safety, and industrial hygiene sectors.

**I**nfrastructure engineering firm **Erdman Anthony** has acquired **Dewkett Engineering, P.C.**, a civil, transportation and environmental firm based in Rhinebeck, N.Y.

Dewkett's headquarters in Rhinebeck will merge with Erdman Anthony's Poughkeepsie, N.Y., office to form a new Hudson Valley office.

Katherine Dewkett, president and principal-in-charge of Dewkett Engineering, is chair of ACEC/New York's Thruway Authority Committee, as well as a past president of ACEC/New York.

## Calendar of Events

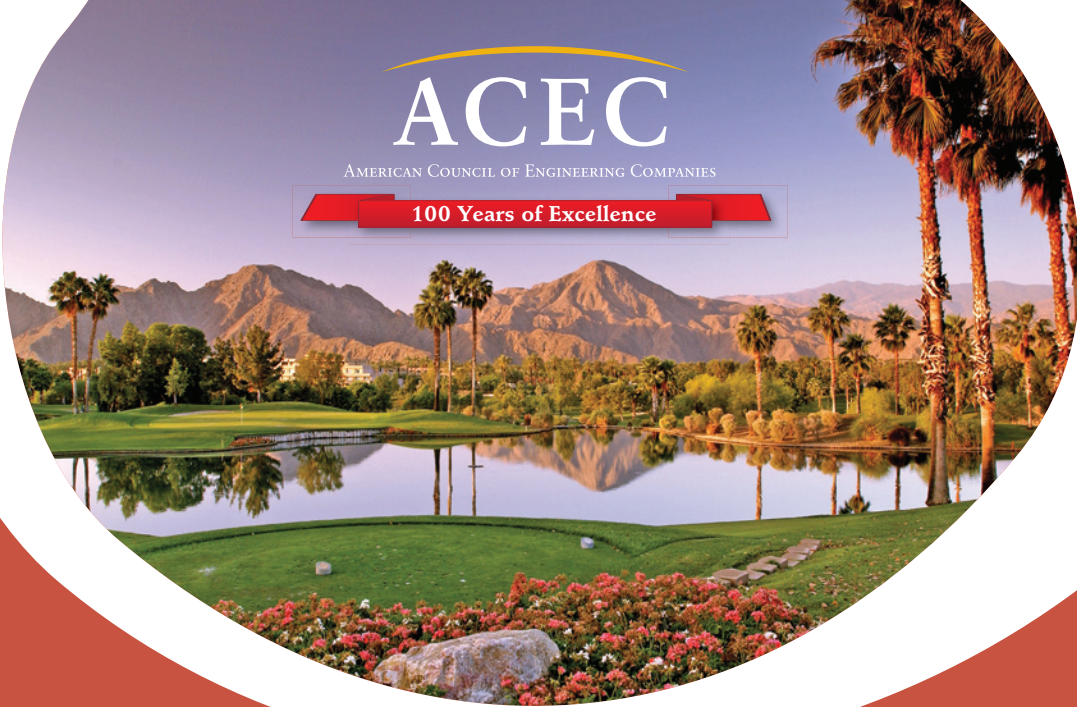
2009	2009	2009	2009
JUNE	JUNE	JUNE	JULY
3 Retirement Program Trends in the Engineering Industry (online seminar)	6-8 Advanced Project and Program Management for the Engineering and Construction Industry, Cambridge (Boston)	17 If You Haven't Planned It, You Can't Control It (online seminar)	9-11 ACEC/Alabama and ACEC/Mississippi Joint Annual Convention, Sandestin Beach Resort, Fla.
3-6 The Business of Design Consulting (BDC): Managing to Succeed in a Challenging Economic Environment, Portland, Maine	9 Negotiating Better Engineering Contracts: A Win-Win Situation (online seminar)	18-19 Applying Expertise as an Engineering Expert Witness, Philadelphia	13-16 Green Infrastructure and Sustainable Communities: Opportunities in New Markets, Denver
4-5 ACEC/Illinois Annual Meeting and Government Affairs Workshop, Springfield, Ill.	16 Risk Taking Under the 2007 AIA, Consensus and EJCDC Documents (online seminar)	23 How Can You Exceed My Expectations if You Don't Know What They Are? Looking for Real (and Useful) Client Feedback (online seminar)	SEPTEMBER
			14-15 Finance Forum, Chicago
			OCTOBER
			7-10 ACEC Fall Conference, Palm Springs, Calif.

Additional information on ACEC's events is available at [www.acec.org](http://www.acec.org).

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# 2009 Fall Conference Save the Date!

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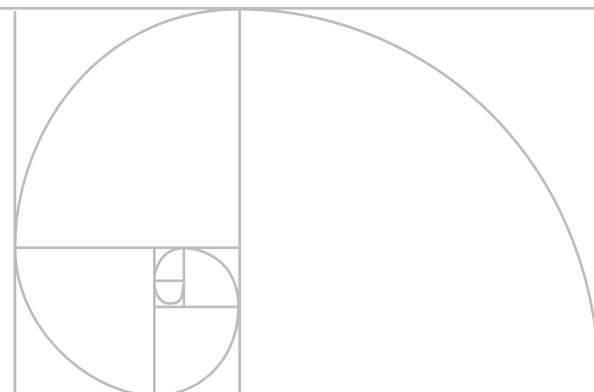
We know it's important to have knowledgeable people on your team. That's why the ACEC Life/Health Trust has chosen UnitedHealthcare, one of the largest health and well-being services companies in the world, to administer and insure the health care coverage plans from health, dental, vision, disability, life and more. Together, we're committed to providing solutions to our client base that includes more than 1,400 firms and 44,000 employees and their dependents who enjoy an enhanced health care experience and improved health.

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- Preferred retention/renewal strategy and approach
- 24-hour NurseLine<sup>SM</sup> access
- Wellness representatives assigned specifically to ACEC member companies
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- Online self-service tools that give members access to personal health records, plan transactions and account information at any time



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The NurseLine<sup>SM</sup> service cannot diagnose problems or recommend specific treatment. The information provided through the NurseLine service is not a substitute for your doctor's care.

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