

REBUILDING AMERICA'S

INFRASTRUCTURE

Engineering for Bridges and Roads

March 2010

The Power List An RAI Exclusive

Technical Feature

Truss bridges:
Inspection and load rating

REBUILDING AMERICA'S
INFRASTRUCTURE
PRESENTS
THE POWER LIST
PEOPLE WHO MAKE TRANSPORTATION INFRASTRUCTURE GO

During the last year, I've had the privilege to report and write for this young magazine, as well as our veteran publication, **CE News**, about the engineering of bridges and roads, as well as the history and future of transportation funding and policy. In that time I've developed an admiration for the bright, methodical, and often misunderstood men and women within this industry. I've also developed a frustration with the divide that exists between an engineer's understanding of this nation's dismal bridge and road conditions, and his or her opportunity to communicate this reality to the (thinking) public.

I can't blame the public for this, because Americans are largely a distracted audience who probably has a limited understanding of what an engineer does in the first place. It's not fair to blame the engineering community, either, because engineers are, at best, uncomfortable evangelists. An engineer's job is to design systems and structures that achieve greatness based on how long they remain safe, static, and unoffending, and it's been a long time since utilitarianism was honored by a parade. Considering how essential an engineer's output is to the motor-ing masses, it's ironic how disconnected creator and traveler are; how little appreciation is offered from user to maker. There are those bridges — the great borough-connectors of New York, and bay-spanners of California — whose artistic and historic value for Americans help cross the divide, but these structures are unfortunately few and far between.

What are unfortunately ubiquitous, as we all know, are structurally deficient and inefficient bridges and roads. Around this time last year, the Obama Administration tapped "infra-

structure" as a key theater in the battle to steady our flagging economy, and it became this magazine's mandate to follow the projects, products, and people who would push the needle toward a renewed transportation system.

To that end, we've covered projects popular and controversial, vital and prosaic, from coast to coast. We've covered new project methods, funding mechanisms, products, and research initiatives. And to kick off 2010, this special feature takes a first look at the people who power the transportation industry.

The Power List does not look at the headliners, like Transportation Secretary Ray LaHood; Rep. James L. Oberstar (D-Minn.), chairman of the House Transportation and Infrastructure Committee; Pennsylvania Governor Rendell; or other high-profile politicians or industry leaders. The Power List focuses instead on the lesser-known people who work, often behind the scenes, to push progress in the transportation infrastructure industry.

The following list is based on insights, suggestions, and full-throated nominations from our team of editors, editorial board members, industry professionals, members of the media, advocates and public servants, and even a few readers like you.

Because "power" is an abstract concept that's difficult to quantify, particularly when considering non-politicians, we separate the people in The Power List into the following groups:

- Governmental
- Professional
- Academia and Research
- Media
- Advocacy

Because The Power List is not a ranking, individuals are listed alphabetically. This list is not complete, either, and we think this is a good thing. As **RAI** expands its reach, both online and in print, we plan to take this project even further by spotlighting more people who are pushing to rebuild America's infrastructure, which will hopefully spur more conversation about the topic. If you have suggestions, we encourage you to write us. On to the list...

GOVERNMENTAL



Janet F. Kavinoky
Director of Transportation
Infrastructure, Congressional and
Public Affairs Division, U.S. Chamber
of Commerce

According to the U.S. Chamber of Commerce, Kavinoky is its "senior lobbyist and policy expert on all transportation infrastructure issues." She also leads the Let's Rebuild America

initiative, which "educates, engages, and activates Chamber members to reframe infrastructure issues and advance solutions to ensure that the American transportation infrastructure and logistics system allows seamless transportation of goods and people."

M. Myint Lwin, P.E., S.E.

Director, FHWA Office of Bridge Technology

"In terms of the bridge industry, I would look to Myint Lwin. I think he has the desire, position, status, and budget to make things happen," said Scott Snelling, P.E., senior engineer with Hardesty & Hanover. According to the Federal Highway Administration (FHWA), Lwin is tasked to "provide national guidance in the design and construction of major bridges and related structures, develop national bridge program and engineering policies, and support research and development to continually improve the quality and safety of bridges."

John Njord, P.E.

Executive Director, Utah Department of Transportation

Njord has held this position since 2001, and in the time he has served four Utah governors. In 2004, he served as president of American Association of State Highway and Transportation Officials (AASHTO); and in 2005, he was chairman of the Transportation Research Board (TRB) Executive Committee. "Njord has helped develop one of the most progressive highway and transit systems in the country," said Dan Israel, P.E., executive vice president, Terracon Consultants, Inc.

Pete Rahn

Director, Missouri Department of Transportation

Rahn has held this position since 2004. In 2008, he served as

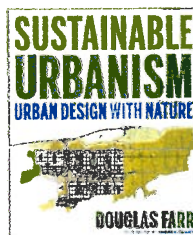
AASHTO president, and in 2009 he was named "Public Official of the Year" by *Governing* magazine. "Pete Rahn has taken a bold step forward to rebuilding the aging bridge system in the State of Missouri with the Safe and Sound project," said Israel.

Janette Sadik-Khan

Commissioner, New York City Department of Transportation

Sadik-Khan was appointed commissioner in 2007 by Mayor Michael Bloomberg, and since her arrival, "she has changed the face of New York City by putting roads on 'diets,' widening sidewalks, adding bike lanes, and creating pedestrian oases," Samuel I. Schwartz, president and CEO of Sam Schwartz Engineering, said. "The world is noticing, and cities are tripping over themselves to catch up." Prior to her appointment, she was a senior vice president at Parsons Brinckerhoff.

PROFESSIONAL



Doug Farr, AIA, LEED AP
President and CEO, Farr Associates,
Chicago

"[Farr] has been working to integrate sustainable elements into the construction field since 1987, when he finished architecture school at Columbia University," explained

Dennis Rodkin in a 2008 profile in *Chicago* magazine. That work has led to distinction: Farr's firm was the first in the world to have designed three LEED Platinum buildings, and he has written a prize-winning book, "Sustainable Urbanism, Urban Design with Nature."

R. Craig Finley, Jr., P.E.

President, Finley Engineering Group, Tallahassee, Fla.

Finley is explained by a reader as "a consummate professional who has earned a tremendous reputation with his specialty engineering firm. The expertise that he and his staff bring to complex bridge projects is second to none. [He] stands alone in the ability to understand, manage and embrace both the engineering and construction aspects of his niche."



Linda Figg, P.E.

President & CEO, Figg **Engineering**

"She's definitely on the list," said Jennifer Goupil, P.E., editor of **Structural Engineering & Design** magazine, adding that Figg

is sharp, tough, shrewd, and unwilling to compromise on her refined approach to bridge design and engineering. Recent accomplishments include the much-lauded I-35W St. Anthony Falls Bridge in Minneapolis (pictured.)

Reader Feedback

In putting this list together, we posed a simple question to our online readership: "When you think of the most influential people in the transportation and infrastructure industry — the people who secure funding, win projects, push policy, perfect methods, teach and research — who do you think of, and why?" A few respondents chose disciplines as opposed to individuals. Appropriately, the responses varied. Here are a few:

- "I think of **engineers** who have the ability and the courage to try new, proven technology, and the position to be able to make decisions based on what is good for the future of our infrastructure and preservation of our unique and historical bridges; but not the people who make decisions based on not making waves so that they will not lose their good pensions."
- "I associate **contractors** with the word 'rebuilding.' Innovative contracting methods are attractive and can save money during construction."
- "**Consulting engineers** are always keeping their clients in mind for cost-effective solutions. They secure funding for small communities and battle with agencies on new technologies. I view the consulting engineer as always pushing the norm for their business, as well as their clients."
- "Unfortunately, **politicians**, because it's always who you know not what you know."

James Michael (Mike) Williams
Senior vice president and Chief Information Officer,
Parsons Brinckerhoff, Inc.

"He has begun the transition of his firm from one of many that do design and drafting, to a select few that have core competency in Virtual Design and Construction (VDC)," Terry D. Bennett, P.L.S., LLS, LPF, LEED AP, senior industry manager for civil engineering and construction at Autodesk, said. "Parsons Brinckerhoff's work on the Presidio Parkway is a leading example of how all transportation projects will be designed, visualized, and simulated in the future."



Theodore P. Zoli, P.E.
Technical director of bridge practice,
HNTB, Corp.

A 2009 MacArthur Fellow, Zoli is described by the Foundation as "a structural engineer who is leading the design of elegant and enduring bridges around the world and making major technological advances to protect transportation infrastructure in the event of natural and man-made disasters."

ACADEMIA AND RESEARCH

Victor C. Li, Ph.D., FASCE, FASME, FWIF
Professor of Civil and Environmental Engineering
University of Michigan

Li's research on Engineered Cementitious Composites (ECC) — nicknamed Bendable Concrete — which is hundreds of times more ductile compared with normal concrete, could permanently change material specification worldwide.



Donald Shoup, B.E., Ph.D.
Professor of Urban Planning, UCLA

According to Samuel I. Schwartz, "[Shoup's] research has led to a number of cities changing their parking policies. Many cities are coming to the realization that parking is an asset and not something that should be given away, and it is expected that these cities will follow Shoup's lead in the future." Shoup has a Facebook following dedicated to his parking movement, too — they're called The Shoupistas.

Jim Whitty
Project Manager, Oregon Department of Transportation's
Office of Innovative Partnerships and Alternative Funding

Profiled in the September 2009 issue of RAI for his work to make a vehicle-miles traveled user-fee system viable, Whitty's work could (and probably should) direct how the United States funds transportation infrastructure in the decades to come.

MEDIA



Michael Grabell
Reporter, Transportation,
ProPublica.org

If you are interested in a refresher course on the American Recovery and Reinvestment Act, find Grabell at ProPublica.org, flip back to early 2009, and push through to today.

Elana Schor
Reporter, StreetsBlog - Capitol Hill

Schor's consistent, comprehensive reporting and adroit analysis has helped cut through the obfuscation and haggling that's unavoidable when it comes to conversations and legislation around federal surface transportation policy.

Erik Sofge
Contributing Editor, Popular Mechanics

From a definitive look at what makes the St. Anthony

Fall's Bridge in Minneapolis so special, to an eerily prescient piece in February 2009 about the impending limitations of the stimulus package's "shovel-ready" stipulation, Sofge separates himself from the pool and manages to make infrastructure interesting for civilians and engineers alike.

Other notables:

Melissa Lafsky, Editor in Chief, [Infrastructure.com](#)

Yonah Freemark, Editor, [TheTransportPolitic.com](#)

Lisa Caruso, Staff Correspondent, [NationalJournal.com](#),
Transportation

Tom Warne, Editor, [TomWarneReport.com](#)

ADVOCACY

Bruce D'Agostino, [FCMAA](#), [CAE](#)

President, CEO,
Construction Management Association of America

"CMAA strongly supports creation of a National Infrastructure Bank because it would depoliticize infrastructure investment and create major new opportunities to fund vitally important projects," said D'agostino in a recent statement, organized by the Building America's Future coalition, which urged the Obama Administration to create a national infrastructure bank. According to a reader, "D'Agostino is a real insider on the push for an infrastructure bank, and getting government agencies to become more professional."

John O. Norquist

President, CEO,
Congress for the New Urbanism (CNU)

During his tenure as mayor for the city of Milwaukee (1988-2004) Norquist was once named "Public Official of the Year" by *Governing* magazine, in part for his work to reorient the community toward walkable streets. At CNU, he leads the organization's battle against sprawl and pushes for livability. Norquist is also the author of "The Wealth of Cities."

Kerry O'Hare

Vice President, Director of Policy
Building America's Future (BAF)

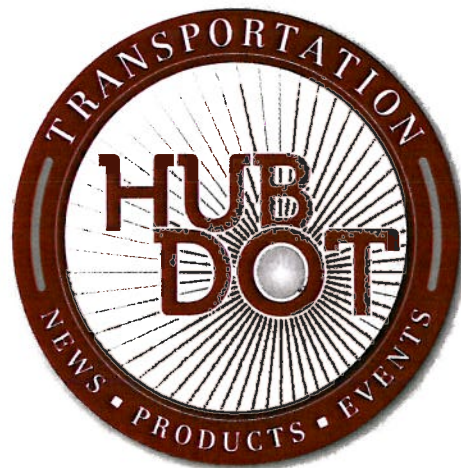
O'Hare has more than 20 years experience in policy development and issue management. Before BAF, she was Deputy Administrator of the FHWA, and before that she worked as Deputy Assistant Secretary for Governmental Affairs at the U.S. DOT, where she educated state-level leaders about traffic congestion and public-private partnerships. O'Hare is a key member to this coalition, which is co-chaired by Governors Rendell, Schwarzenegger, and Mayor Bloomberg.

Michael A. Replogle

Global Policy Director, Founder, Institute for Transportation and Development Policy

According to his biography on [NationalJournal.com's](#) transportation section, where he is an expert contributor, "since 1985 [Replogle] has worked with city governments and local advocacy groups worldwide to implement projects that reduce poverty, pollution, and oil dependence."

*By the way, **CE News** will also be assembling a Power List, for the civil engineering industry as a whole, for the May issue. Let us know who you think is influential in site design, storm-water, erosion and sediment control, wastewater design and management, potable water system design and management, solid waste, and all the other ways civil engineers contribute to our world. Contact bdrake@stagnitomedia.com with nominations.* ▼



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