

## Find your leverage



Mark Zweig

EDITORIAL

Mark Zweig shows the way with five pointers. Make sure you 'leverage' them.

“Leverage” is one of those words that immediately strikes a negative chord with some people. It conjures images of some sharky-looking guy on Wall Street in an office that’s too big barking orders into a cellphone through a Bluetooth headset while working out on a Stairmaster and simultaneously watching six different computer screens for market reports. Maybe that’s why architects and engineers don’t really understand what leverage is – they don’t want to.

When it comes to the A/E/P and environmental consulting business, I like to think of leverage very differently. To me it means making the best use of the expertise you have so you can get compensated for its real worth.

Successful lawyers, for example, seem to get this idea. Their top partners bill out their time for \$400, \$500, or even \$700 an hour or more – and they seem to bill a lot of it – while their junior staffers produce 2000 billable hours or more at \$150/hour. The bottom line is that these other professional firms have \$300-to-400K revenue per total employee numbers while many firms in our business struggle to get \$125K.

How can you increase your leverage? Here are some thoughts:

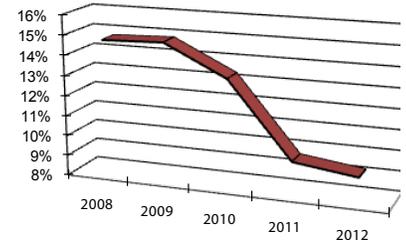
**1) Build real expertise.** That takes specialization. If you are doing what a zillion other providers do and are no better at doing it than they are, it would be hard to command a premium for your time. If, however, you are “the” expert in your field or area, you WILL be able

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## TRENDLINES

### Turnover dropping



According to the 2012 Financial Performance Survey, overall turnover rate – which indicates the annual percentage of employees who have left a firm compared to total employees – decreased again in 2012 after falling to a five-year low last year. While the median overall turnover remained steady until 2009, it dropped to 13.3 percent in 2010, and to 9.6 percent in 2011. This year, the median turnover has dropped slightly to 9.2 percent.

– Margot Suydam, Survey Manager

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If you are doing what a zillion other providers do and are no better at doing it than they are, it would be hard to command a premium for your time. If, however, you are “the” expert in your field or area, you WILL be able to charge more than the other guy.

to charge more than the other guy. And “expert” doesn’t have to only defined as technical expert. An architect, for example, may be an expert in retail design who understands how to influence buyer behavior, as contrasted to another architect who may be the world’s best roofing designer. Real expertise can be leveraged.

**2) Always hire at the bottom and move out the non-performers.**

This is essential. If your firm stops growing and then doesn’t cut at the top, you won’t have any talent to leverage. You will have the opposite: too many senior people doing too many menial tasks at too low of an average pay rate.

**3) Invest in the business.** Leverage comes from doing new things. New disciplines, new services, and new offices all may be essential. Spending money on R&D, recruiting, and automation are also essential if you want to increase the efficiency of your staff and get more revenue per employee. More revenue per employee means greater leverage.

**4) More fixed fee contracts versus hourly or time and material contracts.** Fixed fee contracts encourage efficiency and leverage. Cost-based or hourly contracts discourage it.

**5) Borrow more and use equity less.** Borrowing increases leverage and return on equity. Selling stock internally and increasing equity reduces return on equity. Higher return on equity equates to more leverage. ▲▲

MARK ZWEIG is the Chairman and CEO of ZweigWhite. Contact him with questions or comments at [mzweig@zweigwhite.com](mailto:mzweig@zweigwhite.com).

A/E BUSINESS NEWS

**BIM LEADS TO EFFICIENCY:** In the latest SmartMarket Report, “Business Value of BIM for Infrastructure: Addressing America’s Infrastructure Challenges through Technology and Collaboration,” McGraw-Hill Construction demonstrates that, while the adoption and implementation of BIM in the infrastructure sector is a few years behind vertical construction, the complexity of large infrastructure projects and the benefits BIM offers for greater productivity will lead to rapid growth in BIM use in this sector.

With almost half (46 percent) of the organizations surveyed reporting the use of BIM on their infrastructure projects, adoption is already up from just 27 percent two years ago. Once these organizations adopt BIM, the level of use rises rapidly – more than half of the organizations currently using BIM for infrastructure expect to be using it on more than 50 percent of their infrastructure projects by 2014.

A key finding of the report is that exposure to the benefits of BIM on vertical building projects increases the likelihood of the use of BIM for infrastructure projects as well. This finding is important because it indicates that there is a correlation between the increasing penetration of BIM use overall and the rise in BIM use for infrastructure.

**TRIMBLE BUYS SKETCHUP:** Trimble announced that it has entered into a definitive agreement to acquire SketchUp, one of the most popular 3D modeling tools in the world, from Google. The transaction is expected to close in the second quarter of 2012, subject to customary closing conditions and expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act. While financial terms are not being disclosed, the transaction is not expected to be material to 2012 earnings per share.

SketchUp is currently used by millions of users annually – ranging from architects to engineering and construction firms to building and design professionals – for designing, modeling and visualizing projects.

The SketchUp product and its vision of “3D modeling for everyone” has allowed modelers worldwide, across a wide range of industries, to express design concepts easily, accurately and efficiently. Additionally, SketchUp users benefit from its extensive third-party developer community that provides industry-specific solutions for a variety of customers.

RESOURCES

**PRINCIPALS, PARTNERS & OWNERS SURVEY:** ZweigWhite’s 2012 Principals, Partners & Owners Survey of Architecture, Engineering, Planning & Environmental Consulting Firms is a comprehensive study of owners and top managers of U.S. architecture, consulting engineering, and environmental consulting firms.

For the 2012 edition, principals from across the U.S. were questioned about their compensation, perks, privileges, ownership, work habits, professional backgrounds, personal life, and feelings about business practices, fellow principals, and industry issues. Their responses were then tabulated and analyzed. The result is an eye-opening 230-page report covers ownership, stock appreciation, buy/sell agreements, non-compete agreements, voting rights, roles, responsibilities, perks, compensation, and more. Have you been struggling to resolve disputes, clarify expectations, and set policies that work for principals in your architecture, engineering, or environmental firm? Or would you just like to see how you and your firm stack up in comparison to hundreds and hundreds of other principals from around the country?

This is the one annual report for, by, and about principals and top managers in U.S. A/E firms, and it’s the only source of inside information on the issues about which principals are truly concerned.

For more information or to buy a copy, call 800-466-6275 or log on to [www.zweigwhite.com/zw-1138.aspx](http://www.zweigwhite.com/zw-1138.aspx).



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## TOP PLAYER

# Contagious energy puts them on top

Nimble innovation and pursuit of perfection in energy efficiency helps firm reach 'Hot' status.

**R**avi Maniktala is happy to report that the firm he leads, Lincoln, Ne.-based **M.E. Group**, has remained successful during the economic downturn.



Ravi Maniktala,  
President,  
M.E. Group.

"We have continued to grow by continually aiming high – thinking progressively and genuinely serving our clients. This has proven fruitful in our growth and success. Failure for me was never an option. I believe in the passion that emerges each day from within our core and continue to see forecasted business growth for greater things."

That's partly because everybody at the No. 101 in **THE ZWEIG LETTER** 2011 Hot Firm List believes in their role and the company invests in its talent every day.

Maniktala, principal and president of the 70-person design and green services firm, also believes that the firm's special focus on sustainability and energy conservation sets them apart from the competition. Over the last 25 years, M.E. has helped clients reduce building operation expense, improve occupant satisfaction and manage carbon footprint.

In this interview, Maniktala talks about the next 25 years, balancing work with family and his sources of inspiration.

## **THE ZWEIG LETTER: What does it mean to be a Hot Firm?**

**Ravi Maniktala:** What's normal in business practices? Yes, one can look to growth, culture, profit, and of course the ultimate success of being recognized as a desirable "Hot Firm to Work For." When you become one, these deep cultural characteristics occur nat-

urally. The talented community of M.E. GROUP-ers believe in their role; and every day invest time and talent toward its success. Simply put, our nimble innovators aren't afraid to think differently. Even throughout the downturn in the economy, our achievements

remained strong. It's contagious, you have talent and you attract more talent.

## **TZL: How did you get where you are today?**

**RM:** This was the only direction. Be genuine, be progressive and advocate for what you believe in; and a desire to stand firm and stick with a basic principle: to incorporate realistic design that captured maximum energy conservation, and respect and understand the importance of energy use. It was the pathway to what M.E. GROUP is today.

## **TZL: Do you remember your first paid job? What did you learn then that still influences the way you work today?**

**RM:** My first experience in the working world was with the Department of Roads in the role of engineer aid. I was an intern earning \$1.65/hour. This role laid the foundation for my understanding of work ethics and I gained a good deal of technical knowledge from this position. Most importantly, I learned that it does not matter how much time

you spend at your desk, what matters is what you accomplish. A good attitude and getting the job done has remained with me to this day.

## **TZL: What is it in your DNA that drives you to success? Is it audacity and risk-taking; a can-do attitude and a relentless pursuit of perfection; something else more abstract?**

**RM:** The word that comes to mind is *passion*. A passion for the skills I have learned, passion in aiming to exceed our client's expectations, and a passion to belong at the cutting edge of new and emerging technologies. With that comes the risk-taking and relentless pursuit of perfection. My response has been to always place high importance on investing in education and growth within our talented staff, which enables them to strive for perfection in every way they can.

## **TZL: In today's difficult business climate, what does it take to succeed? Is the spectrum of failure a motivator?**

**RM:** We have continued to grow by continually aiming high – thinking progressively and genuinely serving our clients. This has proven fruitful in our growth and success. Failure for me was never an option. I believe in the passion that emerges each day from within our core and continue to see forecasted business growth for greater things.

## **TZL: Where do you see this industry in 10 or 20 years? What trends are influencing it? What about your company?**

**RM:** We have all watched traditional business practices become affected by the changing global economy and, according to economists, the next 10-20 years will carry more challenges. My belief is that conservation of our energy sources will remain in focus. With seven billion people on Earth and this number expected to explode over the next decade; the built environment has to steer toward making facilities work for us. The government's commitment

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NEWS

# AECOM publishes sustainability report

Report underscores company's commitment and strategic approach toward sustainability.

**AECOM Technology Corporation** (Los Angeles, CA), a provider of professional technical and management support services for public and private clients in more than 130 countries around the world, has published its first corporate Sustainability Report covering the period Oct. 1, 2010, to Sep. 30, 2011. The 2011 Sustainability Report underscores AECOM's commitment and strategic approach towards sustainability.

Highlights of the 2011 Sustainability Report include:

- AECOM's efforts in reducing its carbon footprint.
- Integrating sustainable practices into projects around the world.
- Donating nearly \$4 million to charitable causes during fiscal year 2011, including disaster relief, education and environmental needs.

- Once again, being named one of the World's Most Ethical Companies by the Ethisphere Institute.
- Developing AECOM's "Greening our Operations" (also called "GO!") program to get employees involved in recycling, saving water and energy, green travel, and volunteering in the community.
- Embracing a safety culture both in and outside the office.

"I am delighted to introduce AECOM's first corporate Sustainability Report," said John Dionisio, AECOM chairman and chief executive officer. "While a number of our businesses have produced separate sustainability reports in the past, this report reflects AECOM's comprehensive global sustainability commitment and the positive impact that we make in the world."

"Sustainability is about mastering complexity in ways that optimize conditions for human development. AECOM – in breadth and depth – has been called upon to master that complexity on behalf of our clients, so that they, we and society can be more successful today and in the future," said Gary Lawrence, AECOM vice president and

chief sustainability officer. "This report is an important step in reporting our financial and nonfinancial sustainability information to our stakeholders as well as a reflection of our ability to incorporate sustainability into every project as well as our daily operations."

AECOM's Sustainability Report is based on the disclosure guidelines of the Global Reporting Initiative. A copy of the full Sustainability Report can be viewed in the "downloads" section of the company's Sustainability section of its website: [www.aecom.com/News/Sustainability](http://www.aecom.com/News/Sustainability).

"While a number of our businesses have produced separate sustainability reports in the past, this report reflects AECOM's comprehensive global sustainability commitment and the positive impact that we make in the world."

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to the "Better Building Challenge" sees the upgrading of energy efficiency in America's buildings as one of the easiest, fastest and most economic ways to make a difference in the future of our planet. M.E. GROUP realized this significance a decade ago and invested in specialized technical expertise to compliment our traditional design services. We are ahead in this thinking and prepared to take on the next generation of efficiency in buildings.

**TZL: Do you hold someone as a special mentor? How did this person influence who you are?**

**RM:** My first thought is my father. He always shared with me that I should strive to be the best in all I do. His leadership skills reflected honesty and strong work ethics – but remember to

have fun. I feel I have carried his philosophy with me and echo the influence he had on my life onto my son's and grandchildren's lives today.

**TZL: What's the one trait you most admire in people and why?**

**RM:** Honest, hard working, passionate and innovative people who MAKE CHANGE!

**TZL: Describe the most challenging thing you have ever done/the biggest challenge you have taken on outside of work.**

**RM:** This comes back to the passion I talked of earlier. I'm driven each day because of my love for what I do. Seventy percent of my waking hours are focused on high performance engineering-related subjects. I don't see this as a challenge but finding time to spend with family and working to give back

in my local community is something I want more of and aim to achieve.

**TZL: What question would you ask of another Hot Firm leader?**

**RM:** Your questions are good ones. I guess I would ask: Strategic leadership doesn't always come naturally – it takes years of experiences to develop sound business practices. What are the key points you look for in someone you feel has the ingredients to make a strategic leader?

**TZL: What lesson learned would you pass along to a recent college graduate embarking on a career in the A/E/P and environmental consulting fields?**

**RM:** Recognize people's strengths and enable them. People love to do what they love to do. Passion grows from this. ▀▲

## COMPENSATION

# Raises and bonuses coming back... slowly

Firms are trying to get back to pre-recession levels but are being more selective about compensation.

By CHRISTINA ZWEIG  
Contributing editor

In an economic downturn, firms will often react with pay cuts as a measure to save the company. Are recent salary increases simply a return to near pre-recession levels, or “making up” for lost income over the previous three tough years? Kermit Baker, chief economist with the American Institute of Architects, seems to think so.



Kermit Baker,  
Chief Economist,  
AIA.

Recently, the AIA pulled some firms from their annual Work on the Boards survey and asked them about 2012 compensation. Firms broke down information by job category – eg. intern, non-licensed architect, architect, principals and partners, etc.

“Basically for all the categories, the results are fairly similar, about 40-to-45 percent say compensation will be flat, about same percentage say they will be up, and the remaining 10-15 percent say compensation will be down.”

In general, Baker said firms were seeing a modest growth in compensation, about one to three percent. “That’s not a lot considering how much these firms have taken a hit in the past few years. It’s definitely starting to come back, but it’s not very strong,” he says.

**THE SELECTIVE APPROACH.** **Miyamoto International**, a West Coast-based global earthquake and structural engineering firm with over 100 people, has taken a selective approach to compensation. When times were good the firm increased pay did across the board at a certain percentage rate.

“Since the economy has gone down, we’re still doing well, and better than a lot of firms, but across the board increases don’t seem smart,” says Lana Anest, director of people development at Miyamoto International.

The firm now gives raises on a case-by-case basis, using a variety of benchmarks, including ZweigWhite surveys, and talking to other HR professionals.

“We take a look at our organization and ask, ‘Who do we want to make sure we are keeping?’ We are very careful about the kind of increases we give out. Money is harder to come by, but we also have competitors that are still doing well and will take our people. We don’t want to lose people because turnover costs money too,” Anest says.

Miyamoto International also compares each individual’s salary to his/her peers’ and the rest of the industry.

“Sometimes, we will take a look and see that someone is really low and we’ll get them up to where they need to be,” Anest says. “I’ve been in a lot of different industries, and when you hire in low sometimes those people don’t seem to catch up unless we make a conscious effort.”

**WHAT ABOUT BONUSES?** Baker said that many firms said they aren’t increasing base pay, “But they are reinstating bonuses and other incentive packages.”

ZweigWhite’s 2012 Principals, Partners and Owners survey found that while 60 percent of principals received a bonus or non-shareholder profit distribution in 2011, 40 percent did not. The median bonus as a percentage of compensation was 5.6 percent.

At Miyamoto International, the firm has managed to give bonuses, no matter how small, to every staff member, every year.

“The first time we didn’t give across-the-board increases the staff was a bit surprised, but we still give bonuses and that’s an important part of who we are,

and who Kit Miyamoto (firm president and CEO) is and the kind of organization he wants to build,” Anest says.

Balancing market salaries with what makes sense for the firm is a difficult challenge. The ability to give bonuses is as much a sign of Miyamoto’s success in a down market as it is the philosophy of the firm. “(Giving bonuses) says who Kit is and how he cares about his staff... that’s how we operate, we aren’t who we are without them,” Anest says.

**FOR THE FUTURE...** It’s hard to increase salaries without the guarantee of an increase in revenue. While reinstating, increasing, or continuing bonuses is perhaps a “safer” alternative, a lack of work or revenue is still a big challenge for many firms. This can also be seen in hiring trends. Baker mentioned that it was “hard for compensation to go up dramatically if firms are not bringing in new people.”

“I was surprised how many said, ‘We will be adding new people, but on a contract-only basis. We don’t know how the work is going to go and we don’t want to take on the risk of bringing folks in and then having to lay them off,’” he said.

Baker said the Department of Labor found that payrolls have not moved much in the past few years, except for slight seasonal fluctuation.

“I think it is going to take awhile for business to come back. Our billings index has been up for five months in a row, but just barely each month, indicating very slow growth. Revenue predictions were anticipated to be just a few points gain in billings over the year,” Baker says.

Anest says that for Miyamoto International, certain geographic areas are turning around faster than others. “But things are still very slow and it will take a long time. We’re busy, I am still hiring, but I’m hiring in those locations that are busy, Haiti, Los Angeles, New Zealand... these locations never took as big of a dive.” ▀▄▀

## INNOVATION

# Recession – the mother of invention

A/E professionals are well-poised to lead out of the recession and thrive by thinking like start-ups and leading through innovation.

By LIISA SULLIVAN  
Correspondent

While firms continue to find their way through the economic mire, there is evidence that a new era is beginning. A/E/P and environmental firm leaders will discover in the years ahead that new success can be realized through innovation underpinned by the emerging power of technology and the richness of imagination among people in this industry. DesignIntelligence listed innovation and technology as some of the top 25 industry trends in its 2012-2015 trends forecast (January/February, 2012, issue).

Working harder is no longer the solution. It's time to roll up your sleeves and begin thinking like a start-up entrepreneur.

**RENEWING THE FOCUS ON ENTREPRENEURISM.** Penn Engineering is at the forefront of the country's leading engineering schools with the Engineering Entrepreneurship Program. Designed specifically for engineers and scientists having a passion for technological innovation, these courses focus on the roles of inventors and founders in successful high-tech ventures. By providing knowledge and skills important to the creation and leadership of such startups, Penn's Engineering Entrepreneurship Program aims to train the founders and leaders of tomorrow's high-tech companies.

Philip Boyer, interim director for the program, explains that there are always going to be opportunities for engineers to creatively solve problems and bring new products and services to the marketplace.

"As the business environment changes,



Philip Boyer,  
Interim Director,  
Engineering  
Entrepreneurship  
Program at Penn  
Engineering.

"We live in a world that needs creative leadership."

engineers are being required to understand more business principles than just product development. This minor introduces a process that allows the student to take their ideas beyond the initial engineering of the product or service," Boyer says.

#### KEY ENTREPRENEURSHIP SKILLS.

Boyer says that successful entrepreneurs need to have an internal drive and passion to bring a product or service to market. They do not worry about failure; they will just try again. They balance multiple projects and have a heavy dose of self-discipline. Money is typically not the driving factor for most student start-ups; it is creating something they can call their own.

Recent graduates have gone on to start their own businesses. They typically work for a larger company for about five years, while simultaneously working on their idea.

Ephraim Suhir, PhD, adjunct professor, electrical engineering, at UC-Santa Cruz and owner of **ERS Company** (San Mateo, CA), a firm that provides critical science, testing, teaching, and a wide variety of engineering services, adds that an engineering entrepreneur should be able to deal with uncertainty and ambiguity, be flexible and be able to understand and speak language of other professionals and other entrepreneurs. He or she should possess effective lateral (functional) thinking and vertical (in-depth) thinking, as well as a team player's attitude. The ability to be a convincing speaker and an attentive listener are important as are understanding explaining, persuading and possessing the courage to take on reasonable risks and leader responsibilities.



Ephraim Suhir,  
Adjunct  
Professor,  
UC-Santa Cruz.

Suhir adds that an engineering entrepreneur should also be a good psychologist and a people-oriented person, have a creative and an inquisitive mind, be internationally conscious, be knowledgeable in foreign languages and cultures, be able to think on the international level and in in-

ternational terms, exhibit interest in and possess good knowledge of foreign values, attitudes, and customs. Communication skills – oral and written – are important, and computer skills are vital.

#### CAN ENGINEERS BE ENTREPRENEURS?

Suhir says, "Yes."

"We live in a world that needs creative leadership, and the necessity for effective scientific and technological entrepreneurship is increasing," Suhir says. "Rapid technological change and the emerging global marketplace provide challenges for engineers and businessmen. Understanding how to recognize and evaluate market opportunities has become crucial."

A technological professional with entrepreneurial skills has a better chance than a business administrator of moving innovations from research into manufacturing and the marketplace. The professional qualifications of an engineer are not an obstacle, but an important prerequisite for making a business successful. But, of course, it is the engineer's entrepreneurial abilities and business-oriented actions that will make the business successful. These same abilities and actions will make the engineer a valued enabler of society's wealth creation, and not a commodity in the global marketplace.

"An engineer can and should possess business skills and become a good entrepreneur – that is – guide the business side, as well as the technological side, of a successful enterprise," Suhir says. ▀▀

# What is your liability when volunteering?



William Quatman

GENERAL COUNSEL

Some states provide protection, but a federal statute is still lacking.

Our nation often suffers from natural disasters that leave victims without food or shelter. Good-natured volunteers rush in to assist, including architects and engineers who evaluate structures or help with temporary housing and utilities. Design professionals may also be asked by charities to provide free design services for the homeless. What legal exposure do volunteers have for charitable acts? The general legal rule is that in absence of statutory protection, a volunteer must “use due care while engaged in the discrete undertaking for which he volunteered, and nonfeasance in that situation can result in liability.” This rule has generated a series of “Good Samaritan” statutes aimed to encourage volunteering by limiting liability. As one court said, “Just as a charity might be reluctant to provide certain services and benefits if it knows it will be sued if it provides them negligently, prospective volunteers of the charity will be just as reluctant to volunteer their services if they know that they will be personally liable if they perform those volunteer services negligently.”

**GOOD SAMARITAN LAWS.** The name “Good Samaritan” comes from the Gospel of Luke and the parable told by Jesus of a man who was attacked by robbers, stripped of his clothes, beaten and left half dead. Several people passed by the man without offering to assist until a Samaritan stopped and took pity on the man, bandaged his wounds, placed him on a donkey, and brought him to an inn and took care of him. Jesus said at the end of the story, “Go and do likewise.” Taking the name from the biblical story, “Good Samaritan” statutes have been passed in most states to protect individuals from liability for negligent acts committed while voluntarily providing emergency care. These laws vary in their coverage and exemptions. Many address only persons administering

emergency care and limit coverage to specified medical personnel or to limited situations. A California statute, for example, protects citizens who administer CPR but only if they have completed a basic course complying with standards adopted by the American Heart Association or the American Red Cross. What about the design industry?

In hurricane-prone Louisiana, state statute provides that any architect, engineer or surveyor who volunteers during a declared disaster, either at the request or with the approval of a federal, state, or local official, will not be liable for loss or injury relating to those services. In Kansas and Missouri, where tornadoes cause devastation annually, architects and engineers are immune from liability for negligent structural inspections performed voluntarily after a natural disaster. The Missouri statute also protects “construction contractors, equipment dealers and other owners and operators of construction equipment” for actions taken as emergency volunteers. All of these laws deny immunity, however, in cases of willful misconduct or gross negligence.

In 1997 President Clinton signed into law the Volunteer Protection Act (VPA), which gives limited immunity to volunteers serving non-profit organizations or government entities, as long as the volunteer was: 1) acting within the scope of his/her responsibilities at the time of the incident; and 2) appropriately licensed or certified to perform the type of service involved. The VPA does not protect volunteers from their “willful or criminal misconduct, gross negligence, reckless misconduct, or a conscious, flagrant indifference to the rights or safety.” There are holes in the VPA that permit states to opt out of the act, or to place additional constraints on eligibility for immunity. This calls for a federal law that clearly preempts state law on this subject for construction industry volunteers.

**PENDING LEGISLATION.** Currently pending before the 112th U.S. Congress is H.R.1145, the “Good Samaritan Protection for Construction, Architectural, and Engineering Volunteers Act,” introduced by Rep. David Reichert in March 2011. If passed, the act would provide “qualified immunity” for volunteers from the construction, architectural and engineering industries who provide service in times of disasters and emergencies. By providing this protection, Congress hopes to incentivize volunteers to act in the future in times of need. Conditions for immunity are that the person or company acts on “a voluntary basis, in good faith, and without expectation of

Design professionals acting as volunteers should: 1) research the applicable law; 2) ask for a release and indemnity agreement from the charity; and 3) have a definite scope of services in writing. Finally, encourage Congress to pass H.R.1145 before the next hurricane season!

See WILLIAM QUATMAN, page 12

# 12 popular PMP exam preparation tools



Cornelius Fichtner

GUEST SPEAKER

From apps to dump sheets, it's all here.

If you are about to start studying for your Project Management Professional (PMP) exam, you'll want to make sure your toolkit is bursting with things to help you on the journey to becoming a PMP. There are so many options to consider when looking at the study materials on the market that it can be difficult to know where to start.

First, don't be overwhelmed by the choice. The tools that your colleagues and classmates are using may not be the right ones for you. How do you learn best? Choose study materials that will help you prepare for PMP certification in a way that best suits your learning style. You'll also want to consider your budget. Don't feel that you have to buy really expensive exam preparation tools. There are products on the market that are both efficient and cost effective. Reading what other students have to say about the study tools they use can also be helpful: check out independent review sites.

Still stuck for where to start? Here's my guide to the top 12 most popular PMP exam preparation tools.

- 1) **PMI's Guide to the Project Management Body of Knowledge (PMBOK Guide).** The PMBOK Guide is the workbench of PMP exam preparation tools. It's the foundation that everything else is built on. This is the most "popular" study material simply because everybody has to read it for the exam! Remember that PMI members get a PDF copy for free.
- 2) **PMP exam study guides.** These are also known as PMP exam prep books. They cover the same materials as the PMBOK Guide but in more accessible language. They often explain the concepts in ways that are easier to understand and to learn.
- 3) **PMP exam courses.** Training courses come in many varieties. You could attend a course online or in a classroom. You could study at your own pace or with an instructor. You could choose a boot camp or to study over many weeks. Look for a PMP exam course that will give you the required 35 contact hours.
- 4) **Exam simulators and free questions.** These are the torch in your toolkit, helping you shine a light on your weaker areas. Taking sample exams via an exam simulator will help you assess your readiness for the real thing. You can find free questions online, but these only go so far, so be sure to sign up for a professionally created simulator from a PMI Registered Education Provider. Some PMP exam study guides also come with a CD or DVD which contain questions.
- 5) **Podcasts.** Podcasts can be in audio or video format. A PMP podcast is very easy to carry around with you

and has the benefit that you can listen to or watch it wherever you are. Some of these are so elaborate that they actually fall into PMI's Category F ("distance learning") for PMP Exam preparation courses and even offer 35 contact hours.

- 6) **Flash cards.** Flash cards allow you to study and memorize the concepts that you need to know for the exam. You can make your own and carry them with you at all times, so you can test yourself in spare moments. Another alternative is electronic cards that you can use on your phone.
- 7) **Apps.** Apps are becoming more and more popular and there are many to choose from. For example, there are games that teach you the ITTOs, there are apps that teach concepts with mnemonics and others that test you with questions. Check out the iTunes app store for additional ideas.
- 8) **Formula study guides.** Study guides for PMP formulas are a precision tool. They will help you review and learn the formulas required for the exam in a way that makes it easier to recall them under pressure.
- 9) **Lessons learned.** Don't underestimate what you can learn from others. Talking to colleagues who already have their PMP certification can be an invaluable resource. If you can't talk to anyone, read what others have to say about how they studied, what they studied and what their experience was like. You could also get a mentor to help you prepare, and learn from his or her experiences too.
- 10) **PMI chapter.** This is the spirit level of the toolkit, helping you stay centered and motivated. Tap into your colleagues at your local PMI chapter. They may have a study group that you could join. At a minimum, you'll be able to talk to PMPs about how they managed their journey to PMP certification.
- 11) **Brain dump sheets.** A brain dump sheet is a way to recall information under exam conditions. It's a personal study tool that you can shape to fit the way you study best, and it's becoming more popular. Create a sheet of paper with all the key information on and then practice writing it out until it's second nature. Then you simply have to do that in the exam and all the key information will be at your fingertips!
- 12) **Internet forums.** There is lots of information on Internet forums – and many of them are free. Chat to other students about how their exam preparation is going, or ask advice from seasoned PMPs.

Whatever tools you choose, it is important to study regularly. Every day. Spend some time on your PMP studies every day. The study materials you buy should reflect the fact that you'll be using them on a daily basis, so that might influence what you invest in. Tools like electronic versions of flash cards, books

See CORNELIUS FICHTNER, page 12

## WORKSPACE

# Touchdown offices encourage collaboration

Technology has enabled flexibility and offices are adapting to new paradigm, becoming more efficient along the way.

By LIISA SULLIVAN  
Correspondent

An increase in worker mobility is forcing many firms to not only re-examine their own work spaces, but those of their clients as well. One new concept is called the “touchdown office.” These offices are typically located in an open office plan where on-the-go consultants can plug in a computer, check their email, or use the phone.

**CHANGING TIMES DEMANDS MORE FLEXIBILITY.** Bruce McEvoy, senior project designer at **Perkins+Will** (Chicago, IL), a 1,500-person architectural, urban and interior design firm, discusses how their new office in Atlanta fits the new concept.

“It’s a highly creative and collaborative environment that requires a variety of spaces,” McEvoy says. “Our global practice and the ever-evolving capabilities in information technology have created very agile teams and clients. Today’s professionals are mobile and connected, which has shifted discussions of location to those of time. So, to support today’s dynamic professionals, our design of Perkins+Will Atlanta provided individual spaces clustered around team tables, team rooms, conferencing spaces, teaching spaces, atriums, informal seating areas, and an outdoor terrace. Our teams, clients and visiting colleagues adopt these spaces and choose to work in a variety of settings throughout the day with the help of Wi-Fi and decentralized services.”

This flexible environment for staff, visitors and clients has improved collaboration and Perkins+Will’s ability to create innovative work.



Bruce McEvoy, Senior Project Designer, Perkins+Will.

At the beginning of the design phase, Perkins+Will’s Planning+Strategies group audited what was being done with recent office renovations, firm-wide, and surveyed other creative environments that needed high levels of collaboration.

“Flexibility and the possibility of multiple use spaces as touchdown areas contribute to this model, and help us to design better-performing spaces.”

Common themes of flexibility, multiple scales and common space quickly rose on the list of priorities. Flexibility brings the challenge of connectivity, so integrated technology also became a theme.

“Our clients, consultants and external team members from other offices were also considered in the space,” McEvoy says. “Meetings in our new space have become work sessions, which means colleagues and clients need to have spaces and be as productive as possible outside of their native setting. With the absence of some of our more mobile staff, offices and desks can be utilized by visiting team members as shared space. Group work during the warmer months often includes working outdoors on the terrace or in some of our informal areas composed of more casual furniture.”

**NOT JUST FOR VISITORS.** McEvoy shares that many people view touchdown offices as spaces reserved for visitors or travelers. This is a common misconception.

“At our new office, the touchdown spaces are as much for the Atlanta employees as clients and visiting colleagues. With connectivity and the demands of a global marketplace, we are working more than ever and not just in a prolonged 9-5 schedule that might have existed pre-Internet. We also have more generations in the workforce now than ever and our spaces need to serve a diverse group of people in a variety of ways. The Atlanta office of Perkins+Will provides us with a full range of scales and levels of privacy as possible while prioritizing shared space over personal space.”

**TOUCHDOWN SPACES ARE SUSTAINABLE.**

Additionally, some of Perkins+Will larger clients have incorporated touchdown spaces as part of their strategy to streamline their real estate portfolio. There is no longer a need for large offices that sit empty the majority of the time due to travel obligations. This greatly reduces operational costs in expensive markets with large pools of employees.



Paula Storsteen, Senior Associate, HGA Architects and Engineers.

A core belief of Perkins+Will’s design philosophy is sustainability. A common strategy of this philosophy is systems’ thinking and the elimination of waste.

“Flexibility and the possibility of multiple use spaces as touchdown areas contribute to this model, and help us to design better-performing spaces,” McEvoy says.

Paula Storsteen, senior associate at **HGA Architects and Engineers** (Minneapolis, MN), a 550-person firm with seven offices, says that they are currently working with a few clients to implement flexible, free-address work environments. She attributes this to

See TOUCHDOWN, page 10

## ON THE MOVE

**ATKINS HIRES: Atkins** (Orlando, FL), an engineering and design firm, has named award-winning master planner and urban designer **Joseph Pobiner** as the director of Atkins' North American planning and landscape architecture practice.

Throughout his 34-year career, Pobiner has positively influenced development across the US and worldwide in 24 countries on six continents. He has worked with a broad array of clients – from heads of state to CEOs, nonprofits, and government leaders – on projects in almost every market sector. He has led the global master planning practice for international firms with projects representing more than 250 million total acres and \$52 billion in new construction.

"Innovation occurs at the intersection of disciplines," Pobiner said. "The numerous challenges facing the world today, including balancing the divergent needs of the built and natural environments, demand a multidisciplinary approach that can be championed by master planning and urban design. Through the depth of Atkins' resources, planning can ensure that we first and foremost strive for the best quality of life for all."

Many of Pobiner's projects have been honored by professional associations, trade journals, and other organizations, including the American Planning Association, Urban Land Institute, American Institute of Architects and American Society of Landscape Architects. Notable projects include National Football League stadiums for the Dallas Cowboys, Indianapolis Colts, and Minnesota Vikings; healthcare projects throughout the United States, Latin America, Asia, and the Middle East; mixed-use developments in Qatar and Libya; and numerous large-scale master plans including Dallas/Fort Worth International Airport and the Superconducting Super Collider.

"Joe's experience and vision in urban design, campus planning, and mixed-use master planning complement our strong federal planning and landscape practices in North America," said Atkins senior vice president R. Scott Lawson. "On a global scale, Atkins keenly understands the challenges of urbanization and sustainability. Joe brings an understanding of the issues facing the U.S. markets, and we are uniquely positioned to provide innovative solutions to our clients."

Pobiner has authored more than 120 articles and publications and is a frequent speaker at regional, state, national, and international conferences. He is also a guest lecturer at several graduate programs, including Texas A&M University and the Ohio State University.

**3t HIRES MARAIS: 3tarchitects** (Albany, NY), a design and architecture firm, announced the addition of **Cristina Marais** to its architectural team.

Marais joins 3t architects with more than five years' experience in a variety of projects within the interior design, fabrication, residential, hospitality, and health care sectors. Having worked with several firms such as Situ Studios in New York City and Tsoi/Kobus & Associates in Boston, and collaborated closely with professors at Cornell University on a variety of projects, Marais brings a diverse background to 3t.

"We are excited to have Cristina join our team for several reasons," said Scott Townsend, Founder and principal of 3tarchitects, "Her portfolio boasts a wide variety of innovative and cutting-edge projects, and her inventive ideas will bring a lot of depth to our already creative staff."

"I couldn't be happier to join 3t's team," Marais said. "Their reputation and previous work is extraordinary, and I look forward to collaborating with the professionals at 3t."

**VOA PROMOTES: VOA Associates Incorporated** (Orlando, FL), an international architecture, planning and interior design firm, announced that the following team members in the Orlando office have been promoted to vice president: **Elizabeth DeLaurentis, David Dement, Jay Jensen, Joani Jordan, and Lisa Pruitt.**

With a current staff of over 200 worldwide, VOA specializes in creating environments for leisure and themed entertainment; commercial, hospitality, cultural; higher education; public/government; healthcare; science and technology; and Department of Defense facilities throughout the United States and internationally. The professional design services organization offers comprehensive services in programming, architecture, interior planning and design, strategic planning, campus master planning and technology integration to clients worldwide.

**TT HIRES: Thornton Tomasetti** (New York, NY), the international engineering firm, announced that **D. Michael Dowdall**, has joined its Kansas City office as a vice president. Joe Vyhanek, a senior vice president who joined the Kansas City office last year to lead the firm's MEP team, sought out Dowdall for his extensive experience in mechanical design and forensics.

In his new role at Thornton Tomasetti, Dowdall will be responsible for supporting the Property Loss Consulting, Building Performance and Building Sustainability practices nationally.

"I am excited to take my career in a new direction. By joining Thornton Tomasetti, I am able to leverage my background and experience, reaching out to a broader range of clients and projects. I look forward to showing our clients how beneficial a solid MEP system can be to their businesses – it determines profitability and enhances operations," Dowdall said.

## TOUCHDOWN, from page 9

the advancements in technology – laptops, tablets, smartphones, headsets and wireless are enabling this to be a trend with staying power.

"Our clients are asking to explore alternative office concepts as they approach a renovation or acquire new space. They are interested from a real estate perspective: how can a free-address work environment decrease their overall footprint? In addition, from a recruitment/retention perspective, how can they provide the flexible workplace that workers, especially the Gen

Y workers, are looking for? We also find that assigned workspaces are very underutilized; people are collaborating, attending meetings or traveling and their office sits empty a large portion of the work week."

Every space should be able to function as a workspace. Access to power and data are key; the wide availability of wireless access in today's offices has made this achievable. Providing a variety of spaces to work allows staff to find a space that suits the type of work they are doing that day. Providing enough collaborative space is a priority; solo work can be done anywhere

– at home in your slippers or at the local coffee shop. The workplace needs to support collaboration.

Currently, HGA is working on spaces for all types of users – consulting and sales/marketing groups have been the most receptive, but we are also seeing this type of workspace for user groups that have traditionally been desk-bound, such as IT.

It also has included touchdown spaces for its own clients and colleagues from different offices to work when they are in town. ■■■

## PROFILE

# The trusted team player

Gina Altri brings experience and hands-on approach to CFO role at Bioengineering Group.

By BRYAN SULLIVAN  
Correspondent

**G**ina Altri, CFO at **Bioengineering Group** (Salem, MA), has more than 23 years of experience guiding companies through growth and an ever-changing environment in the A/E category.

She first launched her career at **VHB, Inc.** (Watertown, MA), an environmental, transportation, planning and engineering consulting firm. During her 10 years with them, the company grew rapidly from roughly the scale of where the Bioengineering Group is today, to a highly-respected leader with multiple offices; \$60 million in sales; and 450 employees.

“VHB was only seven years old when I started,” Altri says. “We quickly expanded to seven locations throughout the East Coast. Managing that dynamic growth from all the different offices was a rewarding challenge. I had a lot of autonomy to develop and put into place a number of reporting systems, which gave the owners access to the financial data they needed. I knew I had become a highly trusted team player when I was nominated to become an associate.”

But, like many movers and shakers, after 10 years with VBH, Altri was ready to take on a new challenge and accepted a job with Wakefield Materials as their accounting manager. Upon her arrival, she built the accounting department from the ground up. Wakefield Materials was an \$80 million dollar concrete manufacturing company that had been in the same family for two generations with practically no formal accounting systems to analyze the business. She changed all of that.

Having 15 divisions and 25 locations didn't trouble Altri at all. With a staff of 22 people, she transformed this once unsophisticated function into a smoothly operating financial department.

“I was determined to have the financial data we needed to make key business decisions,” Altri says. “Plus, I loved being part of the management team and being responsible for interviewing, hiring and training key personnel across all the remote locations.”

So by the time Altri landed a position at the Bioengineering Group, she had a great deal of experience to bring to the table. ▀▄

### A CANDID CONVERSATION WITH GINA ALTRI



Gina Altri, CFO,  
Bioengineering  
Group.

**THE ZWEIG LETTER:** How long have you been with the Bioengineering Group?

**GA:** 10 years.

**TZL:** What are your daily responsibilities?

**GA:** To oversee HR, IT, office management, accounting and building coordination. I also serve as a voting member on a \$200 million joint-venture, and am a contributing member on the executive management team for Bioengineering Group.

**TZL:** What circumstances led you to move into your current role?

**GA:** I was originally hired as controller and as the company grew I was promoted to CFO.

**TZL:** What major accomplishment are you most proud of since you have been with the firm?

**GA:** I implemented a new accounting system (Deltek Vision), streamlining processes and providing better reporting for project managers and the management team.

**TZL:** What are your key strengths? What do you feel the key strengths are for an effective CFO?

**GA:** Managing cash flow, negotiating financing and continuing to reduce monthly expenses.

**TZL:** How would you describe your work style?

**GA:** Hands on!

**TZL:** In 2012, what are your top priorities for the Bioengineering Group?

**GA:** To keep costs low and to maintain attractive benefits for our employees.

**TZL:** Where did you earn your degree?

**GA:** BS Accounting, Salem State College.

**TZL:** What is your favorite part of the job?

**GA:** Analyzing, presenting and offering recommendations of financial data.

**TZL:** What do you enjoy doing in your spare time?

**GA:** Traveling and spending time with family and friends.

In 2012, what are your top priorities for the Bioengineering Group?

“To keep costs low and to maintain attractive benefits for our employees.”

## FIRMS ON THE MOVE

**NEW NAME: Altoon + Porter Architects** (Los Angeles, CA) has adopted a new firm name, **Altoon Partners**, to reflect the current structure of the partnership.

“With the retirement of co-founder Jim Porter from the firm, it is important to recognize the significant contributions of the current generation of partners,” said Ronald Altoon, founding design partner. “We have had a leadership transition plan in place for a number of years, with Gary K. Dempster, FAIA, William J. Sebring, AIA and James C. Auld, AIA progressively assuming greater responsibility for both the strategic vision and day-to-day management of the practice. It is gratifying to acknowledge their leadership with this change.”

The 27-year-old global practice, with offices in Los Angeles, Amsterdam, and Shanghai, has an international reputation and clientele for their award-winning retail, residential and mixed-use developments. The firm has completed hundreds of master plans, concept studies, or construction projects in 43 countries valued at over \$11 billion, building long-term relationships with clients and collaborators.

In addition to the partners, an important member of the international leadership team is Richard Kuei, associate partner, who has handled the day-to-day management of all projects in China since the office was established nearly five years ago. Last year, the firm had 10 projects in construction in the region with a total floor area of over 2,000,000 square meters, including mixed-use and transit oriented development projects.

**BL COMPANIES EMPLOYEE OWNED: BL Companies** (Meriden, CT), a

multidisciplinary architecture, engineering and environmental firm providing services to public and private clients in the Northeast and Mid-Atlantic, is now 100 percent employee owned.

Through a transaction with its nine shareholders at the end of 2011, the company purchased the remaining 20 percent of outstanding shares of stock to become 100 percent owned by all of its employees through an employee stock ownership plan – an ERISA regulated plan.

“As a client works with our employees, they are working with an employee owner who understands the importance of client service and meeting our project commitments,” said Carolyn Stanworth, president and CEO of BL Companies. “Our employee owners have the chance to be financially successful based on their hard work, performance and that of their colleagues.”

“The Leadership Team at BL Companies shares a strong belief in the value of employees and moving towards a structure where all employees are owners was a natural extension of this belief,” Stanworth said. “As owners, employees benefit directly as their hard work increases the value of the company. The company also benefits from the efforts of employees, and those benefits go back to all owners – the employees themselves.”

As a multi-discipline firm, BL Companies success requires significant collaboration by all of its professionals. The culture created by all employee owners benefiting from BL’s success has been instrumental in meeting the demands of their clients and achieving the growth and expanding geographic reach that BL enjoys.

### WILLIAM QUATMAN, from page 7

compensation.” Like the state laws, there is no immunity for gross negligence or willful misconduct. The real benefit of this law is that it preempts the laws of any state that are inconsistent with the federal act, unless the state provides “a higher amount of protection from liability” or permits reimbursement for costs or expenses for volunteers. A 2007 version of the Act (H.R. 2067) died in committee without a House vote.

**COURT CASES.** Two cases show that there can be liability even when acting as a volunteer. In a 1986 Florida case, a precast concrete subcontractor gave free design advice to the project architect and engineer that proved faulty. In a Maryland case (*Casualty Co. v. Dept. of General Services*), the court held that, “An individual who volunteers to act for the benefit of a third party thereby assumes a duty to that third party which must be exercised in a reasonable manner, and that breach of this duty may give rise to a cause of action for negligence.” In a 1999 Missouri case (*Peeler v. DeWitt*), when a county needed help renovating a deteriorating courthouse, it asked the original architect (now retired) to advise on what repairs and improvements were

needed. The retired architect volunteered his suggestions on weather-proofing, heating, windows, elevators and restrooms. A local resident was later injured in a fall on the courthouse steps and sued the architect for failure to advise the county to install a handrail. Even though a volunteer, the court said the architect, “Had a duty to carry out his work for the (county) in conformance with what a reasonably prudent architect would have done.” However, the evidence showed that the architect was not asked to look at safety hazards. Therefore, he was held not liable.

**ADVICE TO VOLUNTEERS.** Know that even if you volunteer your services, the law holds volunteers to the same standard of care as the paid professional, unless there is a statute that provides immunity. Design professionals acting as volunteers should: 1) research the applicable law; 2) ask for a release and indemnity agreement from the charity; and 3) have a definite scope of services in writing. Finally, encourage Congress to pass H.R.1145 before the next hurricane season! ▲▲

G. WILLIAM QUATMAN is an architect and general counsel at **Burns & McDonnell Engineering Co.** (Kansas City, MO). Contact him at [bquatman@burnsmcd.com](mailto:bquatman@burnsmcd.com).

### CORNELIUS FICHTNER, from page 8

and guides are very portable and can be used whenever you have a spare moment.

Finally, studying for your PMP is a difficult job, so choose PMP materials that you enjoy using and find fun! That will

make your revision more enjoyable and the PMP credential an achievable target. ▲▲

CORNELIUS FICHTNER, PMP is a noted PMP expert. He has helped over 16,000 students prepare for the PMP Exam with The Project Management PrepCast and offers one of the Best PMP Exam Simulators on the market.