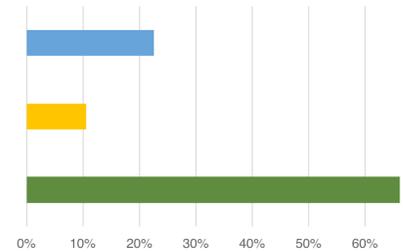


TRENDLINES

Net service revenue



Two-thirds (66 percent) of respondents to Zweig Group's 2016 Valuation Survey said their net service revenue was **growing**. Another 23 percent said their NSR was **flat**, while 11 percent said it was **declining**. The remaining 1 percent did not specify an answer. — Vivian Cummings, research analyst assistant

PICK UP THE DAMN PHONE!!!

Get your project managers to pick up the phone and call clients to improve relationships.

“Tell your PMs to call their client every day just to talk. Ask a question. Talk about kids. Discuss the details of the project. LOOK for a reason to call.”



Mark Zweig

EDITORIAL

In the A/E business, we hate confrontation. As a result, we tend to communicate via email instead of talking on the phone. The older I get the more aware I am of the problems associated with people not picking up the phone and actually talking to each other! While I pride myself on being super quick to respond to texts and emails, and there are some calls I would rather **NOT** have to make, I know one thing for sure: People need to talk more and email less.

When relationships with clients go sour – and in spite of your best intentions they sometimes do – you can usually trace the problem back to someone in the client organization who didn't want you to be successful in helping them. How can that be, you may ask? You know you have good intentions. They have a problem and you are just trying to help them. The reason they don't want you to succeed is simple. That person did not have a relationship with someone in your company. And when there's no relationship do you know what happens? People get paranoid. They start thinking you don't like them. You are out to get them. There's no trust. And you know why there's no relationship? Because this person doesn't really **KNOW** your person. They don't know each other because they never talk.

Of course, most of the time when things go bad the relationship can't be fixed. The problem has already been known for a long

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BUSINESS NEWS

COWI STRENGTHENS STRUCTURE IN NORTH AMERICA Three well-known specialized bridge, tunnel, and marine engineering consultants have combined to drive the growth of COWI in North America. COWI-owned companies **Buckland & Taylor** and **Jenny Engineering Corporation** joined with sister company **COWI Marine North America** to become **COWI North America**.

As a merged company, 350 employees across 13 U.S. and Canadian offices will continue to provide the highest level of technical excellence in bridge, tunnel, and marine engineering as COWI North America to push the boundaries on the most complex and prestigious engineering projects worldwide.

It is a calculated move to take advantage of the infrastructure demands of the next 10 years, as well as the COWI name in the international market.

“Our decision to merge and rebrand at this time was deliberate,” said COWI North America President and CEO Steven Hunt. “We see strong growth in the demand for our specialist services combined with our clients looking for

new ways to deliver their projects. Our clients entrust us to combine our very specialized engineering expertise with project leadership to handle ever larger and more complex projects for them. We see this as an optimal time to combine our North American specialist businesses and lever the global scale of COWI in the bridge, tunnel, and marine market.”

COWI's presence in North America dates back to 1988 with the purchase of marine engineering firm Ben. C. Gerwick. COWI later acquired Buckland & Taylor in 1998, Ocean and Coastal Consultants in 2007 and Jenny Engineering Corporation in 2012.

ICA FLUOR TO BUILD \$1 BILLION REFINING FACILITY IN MEXICO Fluor Corporation announced that **ICA Fluor** was authorized by **Pemex Transformación Industrial** to proceed with the engineering, procurement, and construction of the Madero Clean Diesel project at the Madero Refinery in Tamaulipas, Mexico. Fluor booked its \$500 million share of the contract in the fourth quarter of 2015.

ICA Fluor will provide detailed engineering, procurement,

construction, commissioning, and start-up services for two 25,000-barrel-per-day diesel hydrodesulfurization trains and associated facilities. The project also includes installation of new hydrogen, sulfur recovery, and sour water treatment plants, the revamp of the existing diesel hydrodesulfurization unit, and offsites and utilities to integrate the new production facility with the existing refinery. The project is scheduled to be completed in the first quarter of 2018.

The project is part of Pemex's clean fuels program, its comprehensive development and modernization program, and is designed to increase Mexico's production of ultra-low sulfur diesel in accordance with applicable environmental standards.

“We are very pleased with the performance of ICA Fluor, and this award by Pemex demonstrates the trust and confidence in our joint venture to successfully execute this very significant clean fuels project at the Madero refinery,” said Peter Oosterveer, Fluor's chief operating officer. “Fluor and ICA Fluor remain fully committed to Pemex and our other clients in the Mexican market.”

MARK ZWEIG, from page 1

time, and when the client brings you, the principal, into the situation, it's probably already too late. No amount of promises or salesmanship is going to resurrect it. So the best insurance is this – **TALK**. Tell your PMs to call their client every day just to talk. Ask a question. Talk about kids. Discuss the details of the project. **LOOK** for a reason to call. Start a program of calling daily and I guarantee you that your performance, team morale, and client relationships will all improve immensely.

Ignore my advice at your peril. Keep going down that path of letting your people email everything to your clients in the name of convenience and liability reduction. Allow your people to opt out of making a 10-minute phone call every three weeks and I guarantee you that you will lose precious clients you shouldn't be losing. Being willing to call and get off the email is something us old people tend to do better than the younger ones. You'd think since everyone has a cell phone they would use it to talk, but nope, it is for Facebooking and texting and listening to Pandora and responding to work emails. But talk? Why would you do that?

Try it out. Have your PMs call their clients every day for two weeks. Tell me what happens. My guess is you'll have smoother projects and find some new ones, to boot. But two weeks really isn't enough. Six months of doing this would be a much better trial. ▀

MARK ZWEIG is Zweig Group's founder and CEO. Contact him at mzweig@zweiggroup.com.

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PROFILE



Transforming neglected urban spaces

Detroit is one of many cities that could benefit from sustainably repurposing deteriorated and unused spaces with urban redevelopment.

By LIISA ANDREASSEN
Correspondent



Joshua
Newell,
Assistant
Professor,
University of
Michigan

Back alleys, vacant lots, and forgotten urban spaces hold great potential for fostering more sustainable cities, if they can be reimagined and transformed into multidimensional green infrastructures that deliver environmental, social, and economic benefits.

“We can be more strategic in these redevelopment efforts. There’s much greater potential to achieve simultaneous benefits by repurposing neglected urban spaces with more than just one pillar of sustainability in mind.”

THE MANY FACES OF SUSTAINABILITY. “Traditionally, city planning around green urban redevelopment has been driven by one agency with a single agenda, so there’s been little focus on trying to achieve multiple objectives,” says Joshua Newell, assistant professor at the School of Natural Resources and Environment at the University of Michigan. “We can be more strategic in these redevelopment efforts. There’s much greater potential to achieve simultaneous benefits by repurposing neglected urban spaces with more than just one pillar of sustainability in mind.”

Much of Newell’s urban sustainability research focuses on developing new models for what he describes as coupling multiple ecosystem services within a single redeveloped urban space. For

example, an empty lot in a park-poor neighborhood can be repurposed as green parkland that serves as open space for residents, a playground for children, and a means for abating stormwater runoff.

For example, recent research focuses on Detroit, where Newell is collaborating with other faculty on a project that examines how vacant land parcels in urban settings may be repurposed to improve mobility, reduce stormwater overflow events, and enhance local air quality.

Another research project involves mapping the crisscrossing urban footpaths created by residents who walk through Detroit’s abandoned, unpaved lots. This mapping project is intended to provide policymakers with critical information about the current uses of the vacant parcels before decisions on land redevelopment are made.

“Detroit has a great opportunity to become more sustainable because it has tremendous land resources – much of which are underutilized,” Newell says. “The city is trying to think creatively about how to reinvent itself by repurposing this land for agriculture and green infrastructure. That infrastructure could be used for parks and open space, as well as the abatement of stormwater, which is a source of pollution for rivers and nearby aquatic ecosystems.”

“Detroit has a great opportunity to become more sustainable because it has tremendous land resources – much of which are underutilized.”

See URBAN SPACES, page 4



BUSINESS NEWS

TRIMBLE GCESTIMATOR SUITE SELECTED BY TWO PREMIER NORTH AMERICAN CONTRACTORS Trimble announced that two premier general contractors in North America, **DPR Construction** and **Mortenson Construction**, have selected it as their standard cost estimating solution for commercial building construction projects.

Streamlining the construction estimating process is crucial for improving responsiveness and efficiency on large-scale building projects. Trimble's GCEstimator Suite unifies quantity takeoff, cost estimating, and knowledge management for contractors working with 2-D plan sets, 3-D BIM models, or any combination of the two. The comprehensive approach to cost planning reduces administrative overhead and improves widespread adoption of company best practices in cost estimating.

"The ability to seamlessly capture and leverage our project cost history goes a long way in enabling us to better serve our customers. Providing 'real-time' cost information and bud-

gets in the concept phase is key to eliminating waste and driving greater efficiency on the delivery of projects," said Alan Watt, director of preconstruction technology of DPR Construction.

"Trimble's estimating products enable model-based estimating and continue to advance Mortenson as a leader in virtual design and construction," said Doug Heinrich, estimating director at Mortenson Construction. "With 80 estimators located across North America we needed a common software platform. Using GCEstimator we reduce the time spent on our estimates by simplifying the estimating process, allowing our estimators to concentrate on value added activities."

PRESCIENT DOUBLES SIZE WITH NEW 120,000 SQUARE FOOT HEADQUARTERS AND MANUFACTURING FACILITY Prescient will more than double its footprint when it opens its third facility in the Denver area – a 120,000 square foot manufacturing facility with 10 acres of outdoor

storage – next month.

Prescient provides the AEC industry with an innovative design platform that offers a faster, greener, and more cost-effective alternative to conventional building structures. The system is making significant inroads in the multi-unit building segment.

With nearly 3 million square feet of orders under contract and an additional 4.2 million square feet in order backlogs, Prescient is increasing its manufacturing capacity to 5 million square feet annually with the new facility. This is more than a four-fold increase from the 1.2 million square feet manufactured this year from their two existing facilities in Denver.

Prescient held a grand opening celebration of the new facility in January. Additionally, the company is set to open two expansion plants this year, one in the southeastern U.S. during the first quarter, and a Texas facility late in the year.

URBAN SPACES, from page 3

Newell says that repurposing these neglected urban spaces produce benefits that include:

- An opportunity to improve ecosystem services by capturing stormwater and promoting better air quality
- Enhanced walkability
- Increased property values
- Greater food production
- More healthful surroundings
- Economic gains when vacant land is creatively redeveloped adjacent to commercial areas that stand to benefit from increased foot traffic and more attractive cityscapes

"More than half the world's population lives in cities, and in the U.S. that number is closer to 80 percent," Newell says. "Therefore, the urban sustainability decisions we make in our cities – including the type of houses we build, the way

we move, how we use our land and the kind of goods we buy and consume – have ripple effects on natural, social, and economic ecosystems around the planet."

"The urban sustainability decisions we make in our cities – including the type of houses we build, the way we move, how we use our land and the kind of goods we buy and consume – have ripple effects on natural, social, and economic ecosystems around the planet."

While the prospect of creating a sustainable city can seem overwhelming. Determined leaders as well as influential architects, engineers, and civil society organizations can drive change. ▀

PROJECTS WITH A PURPOSE

Here is a sampling of completed or in-the-work projects that are working to transform urban wastelands into usable community space:

The High Line. Approximately one-and-a-half miles long, this New York City linear park, is built on an elevated section of a long-abandoned section of a no longer used New York Central Railroad section called the West Side Line.

Under Gardiner. Abandoned and disconnected spaces under the Gardiner Highway in Toronto will be transformed into a network of public spaces – everything from farmer's markets and concert venues to bike paths and summer camps. The first part of the project is predicted to be completed in 2017.

11th Street Bridge Park. The 11th Street Bridge Park proposal in Washington D.C., aims to connect parts of the city divided by more than just a river. Socioeconomic barriers need to be overcome, too. The park has four goals:

- To create a healthy community by establishing a safe place for residents to exercise and play.
- To connect the community with the Anacostia River.
- To reconnect the neighborhoods of Anacostia/Fairlawn and Capitol Hill/Naval Yard.
- To generate new jobs and economic activity.

OPINION



The new kids on the block

Rapid hiring during the recovery has changed the complexion of many firms in the A/E/P and consulting industry.



**Chad
Clinehens**

BRAND BUILDING

The rapid recovery in the A/E industry has led to unprecedented growth for many firms. Most firms have rebounded, surpassing their pre-recession revenue and staff levels in a relatively short amount of time. This has put tremendous strains on all areas of the firm, especially those related to new staff. The new kids on the block have the potential of changing the complexion of your firm. To put this into context, we are working with firms that have as much as three quarters of their current staff with tenure of three years or less. For many this is an employee mix never seen in the firms' history. This is presenting tremendous internal and external challenges. On the internal side, those challenges come mainly in the form of cultural issues, and they turn into branding problems.

Rapid hiring often introduces new people into the organization that may not be the quality of traditional hires. Let's face it, recessions offer an opportunity to clean house. Those with the lowest contribution get put on the street. Fast-forward to 2016, and the market is extremely tight, already absorbing everyone that has previous experience in the industry, good or bad. With that comes a potential imbalance among staff. The long-termers have been with you through good times and bad. They understand and reflect your culture. And in the near future, they could also be the minority in your firm.

The best way to get new employees to adopt a new culture and to make them productive is to put them through an immersion onboarding

“The best way to get new employees to adopt a new culture and to make them productive is to put them through an immersion onboarding process.”

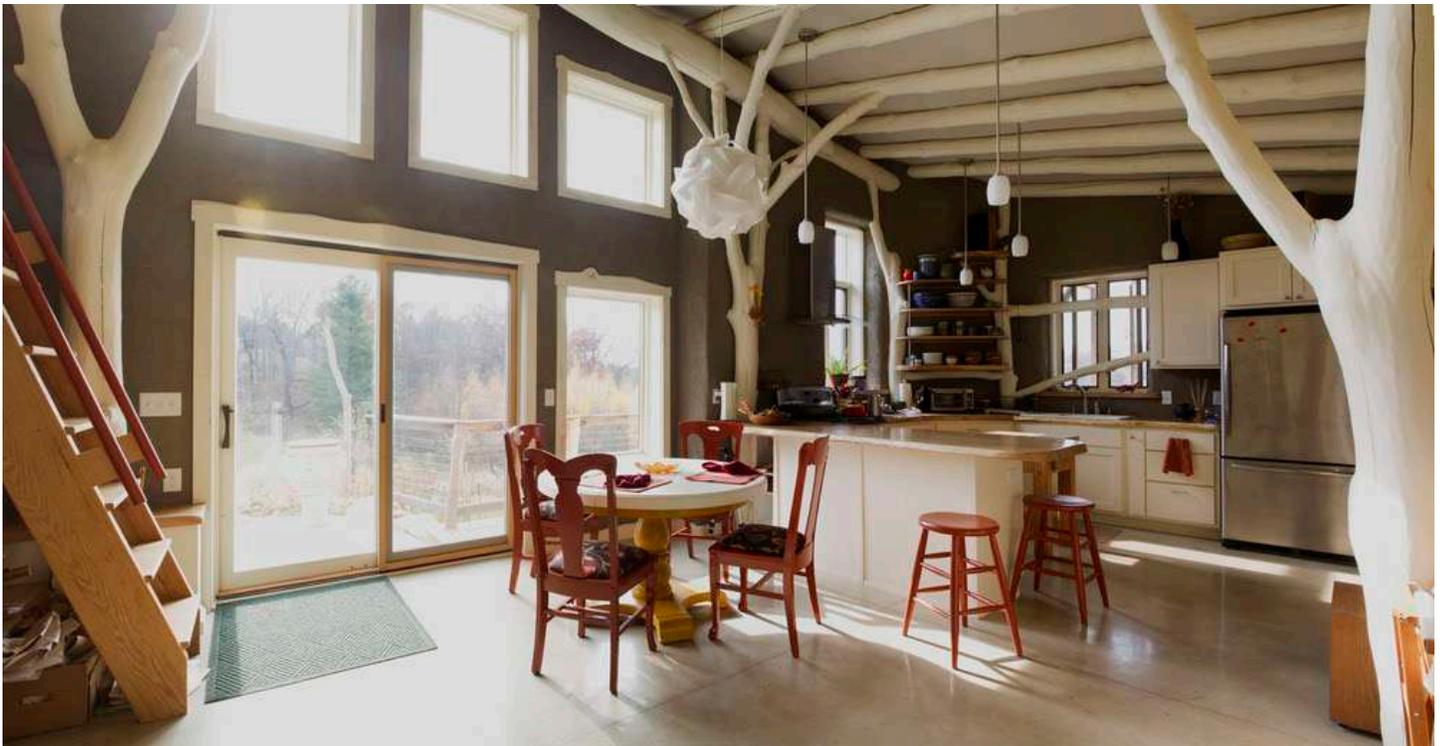
process. This goes beyond company literature and a new-employee orientation slideshow. This is about immersing the employee in the culture and getting them to “drink the Kool-Aid” as quickly as possible. Make your current employees accountable for being welcoming to new employees. Organize social events aimed at

See CHAD CLINEHENS, page 8



SP@TLIGHT ON: Inno

PROFILE



Building with whole trees

Professionals in the A/E industry are finding ways to make sustainable choices when it comes to building materials, and are even saving money in the process.

By LIISA ANDREASSEN
Correspondent



Roald Gundersen,
Co-founder,
WholeTrees

Architects have two choices – work with nature or work against it. More and more architects are choosing the latter. For example, instead of chopping down trees and building houses, they are incorporating trees into new structures. Others are exploring green roof options, bioremediation, and more.

“In Wisconsin there are a lot of trees falling down, and no one is using them.”

SEEING THE FOREST THROUGH THE TREES. Deforestation has a significant environmental impact. In fact, many studies suggest that it is a contributor to global warming: It impacts the water cycle by reducing the

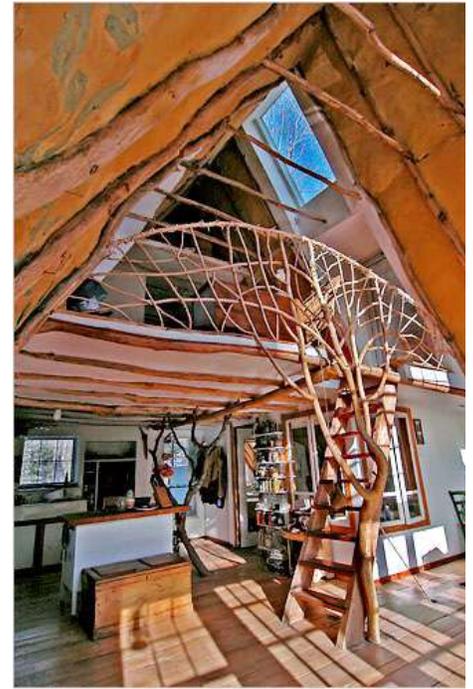
amount of water in the soil and air, it contributes to soil loss, and it results in a decline in biodiversity.

Urbanization makes up only a small part of global deforestation, but it is important for its psychological impact. Will we cut down the forests to build our homes, or will we try to incorporate our buildings into the surrounding environment? How can we change our living habits to be more mindful of nature?

Roald Gundersen, principal architect and co-founder of **WholeTrees** (LaCrosse, WI) began building with trees when he returned to Wisconsin after working for three years on Arizona’s Biosphere 2, an enclosed ecological system used to study global climate change. While there, he’d come to understand the importance of building with local, natural resources.

“In Wisconsin there are a lot of trees falling down,





“Going to the lumber store and buying Pacific Coast lumber never made sense to me. I started to understand that we should look at how we use wood instead of just saying we shouldn’t use it.”

and no one is using them,” Gundersen says. “Going to the lumber store and buying Pacific Coast lumber never made sense to me. I started to understand that we should look at how we use wood instead of just saying we shouldn’t use it. When we cut down and mill the old, wise trees that have survived many storms, diseases, and droughts, they can’t reproduce themselves. We’re really taking away wisdom for the future.”

WholeTrees provides:

- Architectural services for custom applications of timber in construction
- Engineering and consultation for timber construction
- Project management and subcontracting for WholeTrees timber component installation
- Sales of modular commercial structural building systems that can replace steel with comparable prices, cheaper LEED credits, and faster installation.
- Cutting-edge research and development of technologies that will enable the forest products industry to sell round timber to the construction industry, making buildings stronger and forests profitable

The company’s innovative business model adds value to an abundant natural resource, small diameter round timber. It then reinvests this resource back into a region’s construction needs by:

- Sourcing building materials from regional forests
- Employing rural communities
- Leading a regional market for round timber structures
- Constructing the cutting-edge in environmental certification with every new project

“When we cut down and mill the old, wise trees that have survived many storms, diseases, and droughts, they can’t reproduce themselves. We’re really taking away wisdom for the future.”

HOW ELSE ARE ARCHITECTS GOING GREEN? Restoring endangered wetlands and reducing hospital stays are among some of the things landscape architects are working on now, according to the American Society of Landscape Architects. Here are some examples:

- **Healing Gardens.** Working with medical professionals, landscape architects create landscapes that reduce stress, boost the immune system, improve Alzheimer’s symptoms, encourage physical activity, and reduce time spent in hospitals. In

See WHOLETREES, page 8

CHAD CLINEHENS, from page 5

accelerating the new hire's ability to plug into the company and people.

Assign a mentor that spends a set amount of time per week with the employee helping them with everything needed. Make sure your mentor pool is composed of only those who are fully engaged in the company vision and are the most positive folks in your culture. The mentors can have a set number of weeks they do this and then if the relationship continues naturally after the onboarding is over, then that is even better. Also, immediately set goals for the new employee that tie into the overall firm vision and also foster teamwork with their new colleagues. Get serious about protecting and preserving your culture and make integration of new staff a priority and a long-term commitment. A major added benefit of an extensive onboarding process is you can improve an employee that may have been historically an under-performer.

“Get serious about protecting and preserving your culture and make integration of new staff a priority and a long-term commitment.”

On the external side, rapid increases in workload can cause client service issues that threaten the brand. Currently, firms are hiring as fast as they can and they are still behind. Recent client surveys we have conducted are showing more and more discontent with A/E firms among their clients in 2015. There are many comments indicating that firms are too busy and becoming less responsive. Do you know what your clients think of you right now? I have a warning for you: If your firm is struggling with workload

WHOLE TREES, from page 7

fact, there's even an organization dedicated to the design of such healing gardens – the Therapeutic Landscapes Network.

- **Bioremediation.** Landscape architects use natural systems of plants, fungi, or soil microbes to transform formerly polluted industrial sites into a safe and valuable public green space. The American Society of Landscape Architects reports on several sustainable landscape projects that include turning an industrial wasteland into a community park, a parking lot that flooded into a rain garden and more.

“Landscape architects can use trees, shrubs, and other plants to lower a home's heating and cooling costs by as much as 50 percent in the summer and up to eight percent in the winter.”

- **Green roofs.** The headquarters for the American Society of Landscape Architects is home to a green roof and demonstrates the environmental benefits that they serve. Here are some of the highlights:
 - The roof produced a 10 percent decrease in building energy use over the winter months.

“The new kids on the block have the potential of changing the complexion of your firm. To put this into context, we are working with firms that have as much as three quarters of their current staff with tenure of three years or less. For many this is an employee mix never seen in the firms' history.”

issues, you are likely having lapses in client service. You may not realize it, but your clients feel it. If this is happening in your firm, it is rapidly eroding your brand. As the market softens and the work starts to thin out, your clients will show preference for those firms that are consistent in meeting their needs, regardless of economic cycles.

It is important to constantly reinforce your firm's commitment to client service, regardless of how busy you are. Make sure everyone knows it is a priority. As you bring in new talent to backfill your people in client service, make sure they know your firm's commitment to provide responsive and superior client service. Everyone needs to understand the power of your brand name and its sensitivity to lapses in service. Turn your new kids on the block into rock stars and maintain a high level of client service while your competitors are struggling to meet commitments. Protect your brand and your culture with aggressive recruiting and immersive onboarding. ▀

CHAD CLINEHENS is Zweig Group's executive vice president. Contact him at cec@zweiggroup.com

- The temperature on the green roof on the hottest summer days can be as much as 59 degrees cooler than conventional roofs on neighboring buildings.
- During a 10-month monitoring period, ASLA's green roof prevented 27,500 gallons of storm water – nearly 78 percent of all precipitation hitting the roof – from flowing into D.C.'s overburdened sewer and storm water system.
- Water quality testing shows that the water runoff contains fewer pollutants than typical water runoff. Most significantly, the roof is reducing the amount of nitrogen entering the watershed.
- Except during repeated heavy rains, the roof only creates runoff during rainfalls of more than one inch.
- **Energy saving.** Landscape architects can use trees, shrubs, and other plants to lower a home's heating and cooling costs by as much as 50 percent in the summer and up to eight percent in the winter.

So, it seems that landscape architects who choose to go green, not only give a nod to the environment, but may save some green, too. ▀

OPINION



Recruiting a full-court press

Set your A/E/P or environmental consulting firm up for success this year with these five recruiting and retention tips.



**Randy
Wilburn**

RECRUITING NOTES

The year has just started and it looks like it's going to be an exciting one for the design industry. There has been and will be a shortage of good people out there to hire, so you will need to set your firm up for success by making sure you do a couple of things.

Here are five keys to being successful this year when it comes to recruitment and retention:

“Don't interview people for the sake of interviewing them or doing someone at the firm a favor.”

- 1) Recruiting is selling.** If you're not properly selling your firm to potential candidates, you're doing yourself a disservice. Part of the recruitment selling process is making sure that you have the right people representing your firm in front of potential talent. You don't want to put that awkward hiring manager in front of great candidates. You can have them meet with a candidate. But, I would bookend those meetings with hiring managers in your firm that can actually sell the opportunity to come work with the firm.
- 2) Make the firm a great place to work.** You have to show that you're committed to growing. That starts with your current staff. Make sure you show them that you are not trying to control everything and that you can delegate the opportunity to grow to other people. Another factor is pay and benefits. If they are not great now, you need to figure out ways to fix that. Do an internal audit of your benefits package to make sure it's the best one you can offer.

You also need to keep young people engaged and figure out ways to let them know that they are doing a great job. This may mean a higher frequency of reviews and raises. If you are waiting till the end of the year to do this, you may be waiting too long. There are a ton of other ways to separate your workplace from the rest: free lunch (food and beverages), valet service for laundry, and a personal chef just to name a few. Do whatever it takes to set yourself apart from all the other firms out there that are not taking care of the whole employee. You need to think outside of the box when it comes to making your work environment a positive place where people want to work, not just because of the opportunities that they are provided, but also because of the way they're treated.

“Now more than ever before people are heading to social media to find out about your company. You need to control the narrative.”

- 3) Recruit from within.** Another thing that strengthens your ability to be a quality place to work is actually recruiting and promoting from within the firm. There are many mailroom-to-boardroom success

See RANDY WILBURN, page 10



BUSINESS NEWS

JACOBS WINS CONTRACT WITH BIOGEN Jacobs Engineering Group Inc. announced it was awarded a contract to provide engineering, procurement, and construction management services for Biogen's new manufacturing facility in Luterbach, Switzerland.

Under the terms of the agreement, Jacobs is providing EPCM services for Biogen's fourth manufacturing plant. Biogen discovers, develops, and delivers worldwide innovative therapies for people living with serious neurological, autoimmune, and rare diseases. The company currently manufactures therapies in Cambridge, Massachusetts; Research Triangle Park, North Carolina; and Hillerød, Denmark.

Plans for the new facility include state-of-the-art biotech manufacturing technology, which is expected to triple the company's global capacity to produce large protein-based drugs known as biologics.

In making the announcement, Jacobs Global Life Sciences Senior Vice President Robert Norfleet stated, "We are pleased Biogen chose to work with us to meet its demands for increased manufacturing capacity. As the largest professional services provider to the biopharmaceutical industry, we look forward to providing innovative solutions that can help strengthen its medication supply system around the globe."

Work on the facility started in late 2015. The

plant is expected to be in operation by 2019.

BALFOUR BEATTY COMMUNITIES' MILITARY HOUSING DIVISION EARNS 117 "A LIST" AWARDS FOR SUPERIOR CUSTOMER SERVICE As part of an annual customer satisfaction campaign, **Balfour Beatty Communities'** military housing residents across the country completed customer satisfaction surveys, which garnered the company the prestigious 2015 Multifamily Real Estate Award for Customer Service Excellence at 117 Balfour Beatty Communities-managed neighborhoods. Also known as the CEL & Associates "A List" award, the survey acknowledges industry elite as it relates to customer service within multifamily property management.

The survey gives residents the opportunity to grade the company's service from marketing and leasing to unit and community appearance, friendliness of staff, responsiveness to maintenance requests, resident communications, community events, and other important service criteria.

Balfour Beatty Communities earned 117 awards across 37 military installations – including 19 "Platinum A" awards for the highest level of resident satisfaction and 98 "A-List" awards across its 28-state portfolio. Some of the award-winning locations include: Altus, Oklahoma; Carlisle Barracks, Pennsylvania; Dyess, Texas; Fairchild, Washington; Fort Jackson, South Carolina;

Grand Forks, North Dakota; Charleston, South Carolina; Malmstrom, Montana; Lakehurst, New Jersey; Jacksonville, Florida; Fort Worth, Texas; Key West, Florida; Pensacola, Florida; Newport, Rhode Island; Panama City, Florida; Saratoga Springs, New York; and New London, Connecticut.

"Delivering exceptional customer service is at the heart of our core values," said Anne-Marie Niklaus, senior vice president. "Providing housing that makes military members and their families feel at home and cared for is an honor and a goal shared by every member of our team. Our residents have a choice about where they live and we care deeply about their feedback, suggestions and the quality of their experience while living within a Balfour Beatty Communities-managed property. We are grateful to be recognized by our residents and look forward to continuing to provide quality housing and customer service experiences across our portfolio."

The National Multifamily Customer Service Award was created in 1997 by CEL & Associates, Inc. to recognize companies whose management performance and commitment to the highest level and quality of customer service are considered to be the best in the industry. CEL is the largest independent surveyor of customer opinions in the real estate industry and conducts more than 2.5 million customer surveys annually to establish service and performance benchmarks used

RANDY WILBURN, from page 9

stories in the design industry, and you should look for every opportunity to make this happen for your people. If you are going outside the firm to hire the new talent you miss a great opportunity to create an internal success story. This not only helps embolden your current staff but it sets a great example for a job candidate that would like to work with you. You can give them a clear idea of what promotion and advancement look like in your company.

"If you're not properly selling your firm to potential candidates, you're doing yourself a disservice."

4) Make sure you have a group of materials available to market your firm. Nowadays you need to be marketing your firm a million different ways. You need to have a variety of materials available both to your internal staff as well as those that may want to join your firm. Emails and direct mail marketing will help you. But, nowadays your firm needs to have a voice on social media where you not only talk about your service offerings and the vertical markets you serve but also a platform to show why you have a great environment to work in. Now more than ever before people are heading to social media to find out about your company. You need to control the narrative. If you are not involved in YouTube, Twitter,

"There are many mailroom-to-boardroom success stories in the design industry and you should look for every opportunity to make this happen for your people."

LinkedIn, Instagram, Facebook, and GlassDoor, then you don't. Trust me, these platforms are more relevant now than ever before.

A few ideas to help get you started would be to create videos on your service offerings as well as videos that show your company at play. If you offer a monotone, boring work environment candidates will figure it out in a nanosecond.

5) Discourage informational interviews. Last but not least, please don't interview people for the sake of interviewing them or doing someone at the firm a favor. Besides the fact that your efforts are disingenuous you are wasting valuable time that could be focused on the next great candidate. It's true what they say: "Time is money!" Make sure you are spending your time wisely. Your firm's future depends on it.

As always, if I can be of help in any way with regards to brainstorming a challenging recruiting issue, please don't hesitate to reach out to me. I can be found on twitter @randywilburn and @ZGRecruiting. ▀

RANDY WILBURN is director of executive search at Zweig Group. Contact him at rwilburn@zweiggroup.com.



Watersheds and environmental planning

Watersheds provide an important resource for many communities – water for drinking, agriculture, and commercial needs.

By LIISA ANDREASSEN
Correspondent

A watershed is an area of land that drains surface water and groundwater into a river or stream. For example, Prince Edward Island in Canada has more than 250 watersheds. These provide drinking water for the province, in addition to water for agricultural and commercial needs. All islanders have a collective stake in the health of island watersheds because these areas are impacted by, and in turn influence, many human activities.

Watersheds are nature's boundaries, and managing resources on a regular basis is the best way to protect and enhance water quality.

Sean Ledgerwood, watershed and subdivision specialist for the government of Prince Edward Island shares reasons that watershed planning is important:

- **Everything is connected.** Natural resources can be better managed if watersheds are viewed as an entire unit. In many cases, water quality and quantity in a community located on an estuary or on the lower part of a stream is affected by activities "upstream" or outside the community.

"Watershed planning is a grass-roots activity; it involves everyone that has a stake in the watershed."

- **Watershed planning is a grass-roots activity; it involves everyone that has a stake in the watershed.** Planning involves local people and businesses.

It allows them to determine the issues that are important and the best way to manage the resources in their watershed.

"A watershed plan provides a clear path forward for managing the natural resources in a watershed."

- **A watershed plan provides a clear path forward for managing the natural resources in a watershed.** Watershed plans are open, transparent documents that are available to everyone.

HOW CAN YOU GET INVOLVED WITH THE WORK OF LOCAL WATERSHED GROUPS? Ledgerwood suggests:

- Participating in activities that benefit your community. Projects can involve creating nature trails, improving wildlife habitat, or protecting natural resources.
- Learning more about your environment.
- Experience the outdoors and become more familiar with your watershed.
- Help to protect the water quality in your community.

WHAT SHOULD BE INCLUDED IN A WATERSHED PLAN? Although many different components may be included in a watershed plan, the EPA has identified nine key elements that are critical for achieving improvements in water quality. They are:

- 1) A map of the watershed that locates the major

See WATERSHEDS, page 12



ON THE MOVE

HART CROWSER HIRES IN HONOLULU OFFICE Janice Marsters has joined as principal and manager of Hart Crowser's Honolulu office. With a Ph.D. in geology and geophysics from University of Hawaii, and an M.S. in civil engineering, Marsters has more than 20 years of consulting experience in Hawaii and the Pacific, specializing in stormwater consultation and program management, environmental investigation and cleanup, and environmental planning and permitting. She has managed hundreds of successful environmental and geotechnical projects for private industry and government agencies in Hawaii and the Pacific.

Marsters was elected to the American Council of Engineering Companies College of Fellows in 2014, and recently completed a three-year term as chair of ACEC's Risk Management Committee. She has served ACEC-Hawaii for many years as a policy advisor and was awarded that organization's Kāko'o Award in 2014 for her work to benefit the business climate for Hawaii engineering firms.

Hart Crowser is an employee-owned, 120-person engineering, science, and consulting firm

headquartered in Seattle, with six offices in Hawaii, Washington, Oregon, and Alaska.

STEVENSON, HENDRICKS, STANSFIELD, AND WILLE NAMED GTA VICE PRESIDENTS Sam Stevenson has been promoted to vice president of GTA. He has 25 years of project management experience in numerous aspects of environmental investigation, remediation, hazardous waste characterization and disposal, and project planning. Stevenson is responsible for managing the environmental services division of GTA's Laurel, Maryland office.

Stevenson's experience includes developing remedial strategies both under and outside of regulatory agency oversight, preparing human health risk assessments, developing remedial goals, preparing regulatory reports, and more. Many of these projects have been redevelopment sites under state Brownfield programs, particularly Maryland's Voluntary Cleanup Program.

Andy Hendricks is vice president responsible for environmental work performed out of GTA's Sterling, Virginia office. Hendricks has 25 years of experience achieving environmental solu-

tions with clients in the banking, insurance, legal, and industrial communities.

His work includes liability management, corrective action, subsurface investigations and remediation, industrial compliance, and litigation support. Specific types of projects Hendricks has managed include RCRA facility investigations, site assessments, remedial investigations, underground storage tank closures, subsurface characterization, asbestos building surveys, and more.

Andy Stansfield is a vice president and natural resource group leader at GTA's Abingdon, Maryland office. With 14 years of experience, he is responsible for the supervision and execution of natural environmental services including: wetland delineations, forest stand delineations, forest conservation plans, GPS location of environmental features, and more.

Stansfield works closely with project planners, civil engineers, and client representatives to prepare site layouts that identifies, avoids, and minimizes impacts to environmentally sensitive areas, he expedites the review process, and obtains federal and state permits.

WATERSHEDS, from page 11

causes and sources of impairment. To address these impairments, you will set goals that will include (at a minimum) meeting the appropriate water quality standards for pollutants that threaten or impair the physical, chemical, or biological integrity of the watershed covered in the plan.

2) The existing source loads estimated for Element A. On this basis, you will similarly determine the reductions needed to meet the water quality standards.

3) The management measures that need to be implemented to achieve the load reductions estimated under No. 2. You must also delineate measures needed to achieve any additional pollution prevention goals called out in the watershed plan (e.g., habitat conservation and protection).

4) Estimate of the amounts of technical and financial assistance needed. Also estimate the associated costs, and/or the sources and authorities that will be relied upon to implement this plan.

- 5) An information and education component used to enhance public understanding of the project.** This will encourage their early and continued participation in selecting, designing, and implementing the nonpoint source management measures that will be implemented.
- 6) Schedule for implementing the nonpoint source management measures identified in this plan that is reasonably expeditious.**
- 7) A description of interim measurable milestones for determining whether nonpoint source management measures or other control actions are being implemented.**
- 8) A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made toward attaining water quality standards.**
- 9) A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under Item H immediately above.**

VIRTUAL WATERSHED SERVES TO EDUCATE

Shane Rogers, Ph.D., a professor of civil and environmental engineering at Clarkson University in Potsdam, New York, recently completed a project to build a 3-D virtual watershed exhibit. The prototype is located at the Beacon Institute for Rivers and Sanctuaries' new Sensor Place at Clarkson University.

The virtual watershed is an interactive educational tool that combines science, computer technology, and engineering. It works with a projector and a motion-sensing device (a Microsoft Kinect 3-D camera) that is mounted in a case above a sandbox. It is programmed to project a topographical map onto the sand with colors that correspond to elevation. Water emerges as the user digs into the sand. The Kinect and projector are calibrated, so when people dig a hole, the image updates instantly so they see the water filling the hole; the more you dig, what starts as a puddle can grow into a pond, a lake, or a river. The water is a vivid blue and actually shimmers.

The Kinect is programmed with actual data, models of fluid dynamics that make this a virtual reality instrument.

"We hope to create programs to illustrate other watershed-related processes to heighten people's awareness of the many important functions that these ecosystems provide," Rogers says.