Client management is something anyone who owns an AEC firm should be concerned about. After all, if you don’t do it effectively, not only will your projects probably turn out poorly, but your firm won’t perform well financially, you’ll have more stress, and it will be difficult to ever successfully exit from the enterprise when you decide to do so.

So what are some keys to effective client management? Here are my thoughts:

1) You have to be organized effectively for it to work. If you are set up so that multiple principals and project teams are all working for the same client, and no one person is in charge of the overall client relationship, you've got a problem. There probably won’t be good coordination on fees, standards, priorities, and other matters that affect your overall client relationship, either. The organizational structure has to be set up so that one person has the overall responsibility for a specific client organization.

2) You can’t let just anyone be a principal-in-charge or PM for any specific client. You have to match up the skills and personalities of your people with the people you deal with at your client’s end. Some people simply won’t be oriented properly or won’t be compatible. You don’t need to be a genius to see that.

3) You have to be careful not to impose YOUR values on the client. Maybe economy of operation is like a religion to you, but not necessarily to your client who is only concerned about the lowest initial cost. Or maybe you are a staunch conservative politically who can’t stop talking about politics and your client is politically liberal but doesn’t share his or her views publicly. Politics – and assumptions

See MARK ZWEIG, page 2

Not all principals see eye-to-eye with their colleagues. According to the 2017 Principals, Partners & Owners Survey, 24 percent of respondents said fellow principals abused their position in the firm by **not pulling their weight**. On the other hand, 45 percent said their colleagues **did pull their weight** around the office, while another 31 percent said they **hadn’t noticed** if a colleague was or was not doing his or her job.
BUSINESS NEWS

CGA SIGNS THREE YEAR MIAMI BEACH TRAFFIC ENGINEERING CONTRACT Last month, Calvin, Giordano & Associates, Inc. signed the contract for general transportation planning and traffic engineering services for the city of Miami Beach. Eric Czerwiecowski, PE, ENV SP, CGA’s director of traffic engineering, will lead the project team which consists of Tindale Oliver (transit planning, transit-oriented development, and facilities planning), Toole Design Group (transportation planning and complete streets design), CALTRAN Engineering (traffic data collection), Lambert Advisory (economic and financial analysis), and Roar Media (public involvement and outreach).

Under this three-year contract, with two one-year extensions, the CGA project team will provide Miami Beach with traffic engineering analysis and design, short- and long-range transportation planning, transit-oriented development planning, facilities planning and development, public participation, financial planning and analysis, environmental sustainability analysis, transit intermodal facility development, and urban design services.

CGA anticipates the resulting Task Work Orders under this contract will focus on supporting the city’s Transportation Master Plan and Bicycle Pedestrian Master Plan goals. These goals include:
- Prioritizing pedestrians first
- Providing reliable, convenient, and consistent transit service and infrastructure
- Developing a safe, connected, and consistent bicycle network throughout Miami Beach
- Providing accessible and convenient off-street parking facilities
- Ensuring most, if not all, planned developments are in concurrence with the expected capacity levels and the multi-modal vision for the transportation network
- Planning for the efficient freight mobility and delivery of goods within the city

Understanding this, CGA assembled a broad interdisciplinary team with the expertise to address improvements to transportation infrastructure within constrained streets, implement projects that prioritize all modes of transportation, provide green sustainable infrastructure design recommendations, coordinate transportation, and land use decisions, and implement a public outreach program that includes all stakeholders.

Calvin, Giordano & Associates offers clients a comprehensive approach to building code services, code compliance, construction engineering and inspection, construction administration, data technologies, engineering, environmental services, facilities management, GIS, government services, landscape architecture, planning, surveying, traffic engineering, and transportation planning. Based in Ft. Lauderdale, Florida, CGA employs more than 350 professionals and has offices located in Miami-Dade, West Palm Beach, Port St. Lucie, Estero, and Tampa/Clearwater.

MARK ZWEIG, from page 1

made about other people and where they stand – is a huge problem today. There are many other examples but the bottom line is you need to be sure you understand your client’s values and serve them accordingly.

4) You have to understand that accessibility is a BIG area of concern for clients. To manage a client relationship you have to be reachable by the client. If they cannot get ahold of you when they need you they will go somewhere else, plain and simple. That means you have to answer your phone and respond to texts and email messages – quickly and at night and during weekends if necessary.

5) You have to be proactive. That means you don’t wait to call a client until there’s a new project. You call them when you have no agenda, just to show interest. It means they don’t always call you – you “reach out” to them (a phrase that is now so overused it drives me mad!).

6) You have to care. You have to give love to get love. Sometimes you have to do favors for whom people you want to do favors for. You have to show the client that you are in it for the long haul – not just to maximize your income on each and every project you do for them.

I could go on but am out of time. I need to call some clients today to check in on them! 

MARK ZWEIG is Zweig Group’s chairman and founder. Contact him at mzweig@zweiggroup.com.
At Mead & Hunt, we say we are an “exceptional” company with a unique culture. Many firms probably feel this way about their own organizations, so what makes Mead & Hunt different? And how have we maintained our culture considering our geographic and population growth? What holds it all together? Several ingredients contribute to our uniqueness. Each item alone isn’t exclusive to our organization but combining them results in Mead & Hunt.

Our employees share a set of values, principles we believe in. Take care of people. Do the right thing. Do what makes sense. Our formal list of values is longer, but those three items capture the gist of it. Those who share these values typically stay at Mead & Hunt a long time. Those who don’t often leave before spending much of their career here. Our values are evident at every Mead & Hunt office. We foster this by encouraging employees and leaders to visit other offices. This promotes and emphasizes cultural integration throughout the company.

Mead & Hunt’s emphasis on taking care of employees has resulted in a multi-faceted human resources department. Our HR team is comprised of benefits specialists, learning and development coordinators, recruiting and hiring staff, and internal communications experts. Our philosophy is to provide whatever we can to employees. Employees can then give full attention to the work they are good at and take care of our clients’ needs. This results in high client satisfaction.

Our chief human resources officer reports to the highest position in the organization, the chief executive officer. I know companies whose HR department reports to the chief financial officer or the chief operations officer. To us, that sends a message that finance and operations are emphasized more than employees.

To fully invest in employees, Mead & Hunt doesn’t have a training budget. There’s no maximum annual dollar amount per employee. If someone needs training, they need training! Mead & Hunt
does what makes sense in each situation. For example, continuing education is required for licensure. It doesn’t make sense to tell someone they cannot take training needed for a license because they exhausted their annual training budget. Mead & Hunt develops and organizes an annual internal conference for project managers and/or technical staff. This two-day learning opportunity brings together 200 to 300 employees. We originally intended it for training, and it is. However, the best benefit employees receive (they tell us this) is the in-person interaction between employees from other locations and business units.

Mead & Hunt takes onboarding very seriously. Employee engagement is “make or break” within the first six months. It’s imperative to get the employee emotionally invested in the organization. Mead & Hunt brings every new employee, regardless of role or position, to the Madison-area office for orientation. Our CEO, CHRO, president, and others discuss culture, history, how we do business, and several other topics. Each department has a program for taking care of new employees. Each employee is paired with a “buddy” to help them maneuver through the system for their first year.

“Our employees share a set of values, principles we believe in. Take care of people. Do the right thing. Do what makes sense. Our formal list of values is longer, but those three items capture the gist of it.”

HR is involved at the earliest stages of all acquisitions Mead & Hunt undertakes. HR crafts a strategy for onboarding employees with minimal turmoil and stress. Orientation is conducted at the new location rather than in Madison. We go to them. During the next several months, the HR team and others from Mead & Hunt visit the new employees to continue the integration. We encourage our new teammates to visit other offices to meet and interact with employees and learn about disciplines they might not otherwise encounter.

Mead & Hunt Cares is an essential program that demonstrates doing the right thing and taking care of people. Employees have many ways to participate. Mead & Hunt provides paid time (separate from vacation) to volunteer. We form teams to raise money for charity. A grant program allows employees a chance to delve into a project that gives back to the community. Mead & Hunt matches employee donations to STEM programs and charities. We sponsor officewide events such as food drives, school supply drives, and helping families in need.

“Weed & Hunt provides paid time (separate from vacation) to volunteer. We form teams to raise money for charity. A grant program allows employees a chance to delve into a project that gives back to the community. Mead & Hunt matches employee donations to STEM programs and charities.”

The lack of hierarchy at Mead & Hunt is also different. We all have a title and a role, but nobody is above doing a task someone else is expected to do. “That’s not my job” does not fly at our company. If we can help a co-worker, we should – or at least point them in the right direction. Mead & Hunt has no profit centers. This enables us to freely share work and resources across offices and departments. I’ve heard of companies whose own profit centers compete for a project or a client. Why compete against yourself when there’s already enough competition in the market?

As you’ve probably figured out, I could go on and on about the ingredients that, when combined, make Mead & Hunt an exceptional company. I haven’t covered them all, such as employee ownership or fun events we do together. Many things that are worthwhile and successful on their own, when aggregated, are greater than the sum of their individual parts. This creates an even better outcome. That is Mead & Hunt – exceptional.

WENDY CULVER is Mead & Hunt’s chief human resources officer. She has been with the company for more than 20 years. She can be reached at wendy.culver@meadhunt.com.
The Successful Successor roundtable is an exclusive event for income strategic leaders of firms and newly-minted strategic leaders of these firms. The purpose of this seminar is to discuss the highest-level issues facing newcomers to the c-suite and to individuals who are preparing to take on a CEO role in today’s AEC firm. This two-day event includes educational and networking sessions in an upscale setting and is part of Zweig Group’s new Experience Education series.

The program is led by industry experts with extensive experience working with and leading AEC firms. The two-day agenda covers areas of discussion determined by those in attendance. It’s presented in a guided discussion format to encourage discussion among all attendees.

NEW ORLEANS  AUG 7-9

VENUE: Hotel Monteleone

It’s been said that the French Quarter begins in the lobby of Hotel Monteleone. This venerable New Orleans hotel sits majestically at the foot of Royal Street and offers valet parking with two garages. Our guests have the best point of departure for all things New Orleans.

GROUP RATES AVAILABLE UNTIL JULY 16

zweiggroup.com/successful-successor-seminar/
Conference call: Sepideh Saidi

President and CEO of SEPI Engineering & Construction, Inc. (Hot Firm #74 for 2017), a 350-person firm based in Raleigh, North Carolina.

“People need to feel like their work life is an extension of their personal life,” Saidi says. “It’s a very intentional mesh and mix – personal and professional.”

A CONVERSATION WITH SEPIDEH SAIDI.

The Zweig Letter: Zweig Group research shows there has been a shift in business development strategies. More and more, technical staff, not marketing staff, are responsible for BD. What’s the BD formula in your firm?

Sepideh Saidi: Up until last year, business development was not a dedicated position. Personally, I enjoy business development, but I know I can’t do it alone. And, not everyone enjoys the dynamics involved in business development so you can’t rely on or expect people in more technical positions to enjoy that or be good at it. I knew I needed to hire a full-time business development person. He’s actually from a different industry, but what impressed me most was his understanding of the process involved. It’s also important to bring in outside staff to teach employees the basics of business development. Not everyone is a natural.

TZL: Diversifying the portfolio is never a bad thing. What are the most recent steps you’ve taken to broaden your revenue streams?

SS: We recently added a surface utility engineer to surveying and also added GIS services. Both complement what we already do.

TZL: Profit centers. There are A/E leaders who say profit centers create corrosive internal competition for firm resources. What’s your opinion on profit centers?
SS: We track based on service line. It’s important to measure how each line is doing. That helps us to determine which area needs more resources. That said, if one service line is not doing as well as another, we don’t compare. Each line has its own goals and budgets. Leadership needs to set the tone for all to succeed.

“All financial details are shared with each service line manager. They can then share what they choose to with their teams, not other teams.”

TZL: What’s your policy on sharing the firm’s financials with your staff? Weekly, monthly, quarterly, annually? And how far down into the org chart is financial information shared?

SS: This is something I’ve struggled with in the past. All financial details are shared with each service line manager. They can then share what they choose to with their teams, not other teams. Monthly, we have an all-hands on staff conference call that lasts about 30-45 minutes. The CFO talks about year-to-date numbers and margins. We don’t discuss the bottom line.

TZL: The design-build delivery model appears to be trending upward. What are the keys to a successful design-build project? What are the risks?

SS: The success lies in the formation of the team. Everyone on the team needs to understand the process and what’s needed to be delivered. The design team’s relationship with the construction company is key. It has to be one that is transparent, encourages creativity, is on budget, and instills trust and respect. Communication will yield cost savings and limit risk which only burdens the staff. The rewards are great once everyone understands the common goal.”

TZL: While plenty of firms have an ownership transition plan in place, many do not. What’s your advice for firms that have not taken steps to identify and empower the next generation of owners?

SS: You have to have it – whether internal or external. Leaders need to prepare mentally and emotionally. They need to “have the conversation.” When it’s time, the transition needs to happen quickly. Once that’s realized, the planning can begin to maximize the value of the company. Show potential leaders the opportunities that can be available and then get them ready for that financial commitment.

“Communication will yield cost savings and limit risk which only burdens the staff. The rewards are great once everyone understands the common goal.”

SS: For the last two years, I’ve been focused on creating a leadership pipeline. We’re doing this in two ways:

1) Bonus program. We offer quarterly performance bonuses to people who are nominated by their service line managers.

2) Associate’s program. We offer stock ownership. That’s a big incentive.

More than these two programs, I’m really working to create a culture and company that’s supportive and feels like a family. We offer leadership classes, training, and cool office spaces. People need to feel like their work life is an extension of their personal life. It’s a very intentional mesh and mix – personal and professional. Blending that sense of sameness is important. As we grow, we’ll continue to approach our culture with a small-firm attitude.

TZL: As you look for talent, what position do you most need to fill in the coming year and why?

SS: We’re looking for positions in all areas – entry-level engineers, scientists, surveyors, and construction managers. We have diversified client sectors – private, public, federal, and municipality. Right now, North Carolina is in a very good position and there’s a great demand for our services.

“Communication will yield cost savings and limit risk which only burdens the staff. The rewards are great once everyone understands the common goal.”
TZL: The list of responsibilities for project managers is seemingly endless. How do you keep your PMs from burning out? And if they crash, how do you get them back on the road, so to speak?

SS: The leaders need to pay attention to what’s happening. Also, to lessen the load, we’ve started hiring project manager assistants. These are people who can take away duties that can be easily handled by someone else – e.g., writing meeting minutes. It’s also important to encourage them to take time off or to leave early. Leadership must provide support.

“...I’m really working to create a culture and company that’s supportive and feels like a family ... People need to feel like their work life is an extension of their personal life. It’s a very intentional mesh and mix – personal and professional. Blending that sense of sameness is important.”

TZL: What is the role of entrepreneurship in your firm?

SS: If people thrive on new ideas and some risk, they will love it here. We’re all about entrepreneurship. There’s lots of opportunity if you’re willing to take some risk. I’m an entrepreneur, and to me, the unknown is fun. For others, it may be scary and make them uncomfortable. I explain to leaders that they need to support new ideas.

TZL: In the next couple of years, what A/E segments will heat up, and which ones will cool down?

SS: I think municipal engineering will heat up – water, sewer, broadband, more public transportation and light rail and people movers. The future will depend on transportation planning. I don’t see many areas cooling down.

TZL: Measuring the effectiveness of marketing is difficult to do using hard metrics for ROI. How do you evaluate the success/failure of your firm’s marketing efforts when results could take months, or even years, to materialize? Do you track any metrics to guide your marketing plan?

SS: Here’s an example. We had a specific strategy to grow municipal work. It took about 12 to 18 months to realize results. It’s not that difficult if you can get your head around it. Measure against the plan and process and then you’ll see results. You just can’t be random about it – it has to be very specific. Don’t be a generalist.

TZL: They say failure is a great teacher. What’s the biggest lesson you’ve had to learn the hard way?

SS: It has to do with retention and recruitment. My greatest disappointment was in hiring key people that were not right for their jobs. It didn’t take me much time to figure out the fit was poor, but it took me too long to make a change. This created negativity and impacted others.

TZL: While M&A is always an option, there’s something to be said about organic growth. What are your thoughts on why and how to grow a firm?

SS: So far, we’ve mainly grown organically. I think how you grow depends on where you are in the life of the firm. A younger firm will likely be more poised for organic growth. You have to build the house with a strong foundation first and then you can think about acquiring and adding on. We’re just now getting ready.

TZL: Do you use historical performance data or metrics to establish project billable hours and how does the type of contract play into determining the project budget?

SS: We’ve invested in accounting software so we can access historical data. We have different types of budgets in place for public sector and private sector. Some are hours and overhead, others are lump sums. We track budgets every month and review projects to see if we are over or under or right on target.

“My greatest disappointment was in hiring key people that were not right for their jobs. It didn’t take me much time to figure out the fit was poor, but it took me too long to make a change. This created negativity and impacted others.”

TZL: What’s your prediction for 2018?

SS: Very strong. We have a good backlog. I always try to predict what we need to do differently – geographically, service lines, etc. North Carolina has many strong opportunities for several years to come. My plan is to diversify client sectors, continue to build relationships and keep the leverage.
Some people describe the proposal process as a marathon while others consider it more of a sprint. The consensus probably lies somewhere in the middle, although too many times it feels like the 400-meter relay – with hurdles.

Even with long lead times, the proposal process can be stressful. Marketers have to own the process and enforce the schedule.

Even if your proposal timeline extends to a longer period or a quick turnaround, a comprehensive schedule is a must to ensure a successful submittal. After all, serious runners prepare detailed training itineraries for each race with specific goals at various milestones to deliver the strongest performance possible. Sound familiar?

Even with the longest lead time in history, the proposal process will feel contrived and stressful. As noted speaker Michael Altshuler said, “The bad news is time flies. The good news is you’re the pilot.” It is up to the marketing professional to own the process and develop and enforce a schedule. Here are some items to consider:

1. **Starting blocks.** Develop the schedule early on. Right out of the gate, the schedule should take precedence. The team needs to understand all the roles, responsibilities, and due dates. During the kickoff meeting, explain how important it is to be compliant and the impact it has on every step of the process.

   “Serious runners prepare detailed training itineraries for each race with specific goals at various milestones to deliver the strongest performance possible. Sound familiar?”

2. **Track shoes.** Use multiple formats. There are specific track shoes for every runner out there and the same can be said about scheduling formats. Be as varied as possible and create bullet lists (or check-
KWK Architects Selected Design Architect for Multi-Building Apartment/Townhouse Project at South Dakota State University

Student housing experts KWK Architects has been selected as the design architect for a $20 million, multi-building apartment/townhouse project at South Dakota State University in Brookings, South Dakota.

Architecture Incorporated, based in Sioux Falls, South Dakota, has been selected the architect-of-record for the project.

The KWK Architects project design team includes Javier Esteban, Paul Wuennenberg, and Matt Kirschner. This is KWK Architects’ first project in South Dakota.

“We are looking forward to working closely with the residential administrators at South Dakota State University to design a beautiful, new apartment neighborhood that meets the needs of the university's students and sets itself apart from the traditional residence halls on campus,” said Esteban.

University officials plan to build multiple buildings to house juniors, seniors, and graduate students on a two-block parcel on the southeast corner of the campus. The existing State Court Apartments, built in 1959, currently occupies this site. The site is bordered by 7th Street to the south, 8th Street to the north, 14th Avenue to the west and Jackrabbit Avenue to the east.

The redevelopment will consist of a three-story apartment building and four to six, two-story townhouses in a mix of one-, two-, three-, and four-bedroom plans. The apartments will also feature off-street parking and in-unit laundries.

According to university officials, the new facilities will be residential in appearance, but distinctive as apartments, making them aesthetically distinguishable from the residence halls in this quadrant of the campus.

Founded in 2013 by five architects with a combined 120 years of higher education knowledge and experience, KWK Architects partners with colleges and universities across the United States to create innovative and inspiring places that enhance campus life. Areas of expertise include student housing and dining, and academic and science/technology spaces. KWK Architects has completed more than $1 billion in construction-valued projects since its founding and currently employs a growing staff of 15 at its headquarters in St. Louis, Missouri.

Preconstruction Leaders Featured at Advancing Building Estimation Conference 2018

The Austin Company, a leading design, engineering, construction, and location consulting firm headquartered in Cleveland, Ohio, was featured at the Advancing Building Estimation Conference in May in Denton, Texas.

Chris Jackson, director of preconstruction services, and Amy Hewis, preconstruction coordinator, both with The Austin Company presented at two sessions as part of the More Efficient Bidding track:

- Become the “General Contractor of Choice” for Subcontractors by Out-Performing Your Competition
- Exploring What General Contractors Are Doing to Optimize Their Subcontractor Relationships & Improve Bidder Responsiveness

With the widespread construction labor shortage and accelerated project schedules, general contractors and subcontractors must find new ways of working together more efficiently. These two sessions shared ways to optimize this relationship and how general contractors and subcontractors can become trusted partners for project success.

The Austin Company was founded in Cleveland, Ohio, in 1878. Austin offers a comprehensive portfolio of services, including planning, architectural design, engineering, design-build, construction management, and construction, as well as site location and operations improvement consulting for commercial and industrial companies throughout North America.

Hurdles. Promote flexibility. Schedules are not static, so be prepared to edit as you progress, and use as many bells and whistles as needed to make team members aware of shifts in due dates and/or responsibilities. David Stearman, a respected proposal professional, says that we should “resist the urge to immediately compress (or eliminate) key tasks at the beginning or end of the process; and that instead, we should compress the time for writing and reviewing.” Proper planning is essential to craft a winning submittal. Most of the errors occur during the production/submittal phases, so it makes sense not to cut into their allotted terms. The time to sit down to write and review a proposal presents more flexibility.

Proposal schedules go beyond listing the due dates specified in the solicitation and agreed upon dates with the proposal team. These living documents should function as clear snapshots of milestones, but also as agile tools to track detailed tasks, allowing the coordinator to adjust steps along the way. As the late author Stephen Covey said, “The key is not to prioritize what’s on your schedule, but to schedule your priorities.”

As the dedicated runner plans his training to focus on his primary areas of concern, the proposal manager uses schedules to maintain the proper pace that allows every step in the proposal process to be addressed properly. Put on your track shoes and start running your proposal.

Baton. Explain the hand-offs. Several tasks in the proposal process will happen concurrently, but there are specific phases that function as the laps on a relay race. Be as dramatic as possible when explaining that every phase is equally important: strategizing/planning, development, reviews, production, and submittal. Use horror stories to describe how rushing the production and submittal phases can create dreadful situations. For example, primary and backup printers breaking down when you waited to print on the last day; mailing a proposal for the U.S. Postal Service through FedEx; or having car trouble when hand delivering a proposal right down to the wire.

Efficient Bidding Track:

- Become the “General Contractor of Choice” for Subcontractors by Out-Performing Your Competition
- Exploring What General Contractors Are Doing to Optimize Their Subcontractor Relationships & Improve Bidder Responsiveness

Promote flexibility. Schedules are not static, so be prepared to edit as you progress, and use as many bells and whistles as needed to make team members aware of shifts in due dates and/or responsibilities. David Stearman, a respected proposal professional, says that we should “resist the urge to immediately compress (or eliminate) key tasks at the beginning or end of the process; and that instead, we should compress the time for writing and reviewing.” Proper planning is essential to craft a winning submittal. Most of the errors occur during the production/submittal phases, so it makes sense not to cut into their allotted terms. The time to sit down to write and review a proposal presents more flexibility.

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In Reno, as in other parts of the world, water will continue to be a problem as our population expands. Reno is especially challenged because it is in a high desert with a very dry climate, so evaporation is very high. As we approached development of the West 2nd District, we were determined to be leaders in sustainability. So, from the early stages of planning, we focused on using less water.

Our initial thrust was to recycle the water we used. We explored several systems and began working with Tom Puttman (whom I knew from Portland, Oregon) to develop a water recycling system. Tom is the founder of Puttman Infrastructure which designs, builds, owns, and operates on-site sewage treatment plants that also recover water. We’ll be creating a treatment plant in our project that will reduce water consumption by 50 percent, compared to connecting each building to the local water supply and the waste to the city of Reno’s sewer system.

The net effect will be quite dramatic. Not only will we reduce the water charged to the West 2nd District residents by half, but we will also significantly reduce the project’s sewer charges. This will be good for people living and working here, but will be even better for the environment.

“The recycled water will be ‘gray’ water, not potable. If a person drank it, it wouldn’t make them sick. It just wouldn’t taste very good. We’ll be able to use gray water for landscape irrigation, to keep our cooling towers filled and to flush our toilets.”

See ED FRIEDRICH, page 12

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**OPINION**

It’s all about water

Reducing consumption and finding new ways to re-use water will become increasingly important as populations grow.
**ON THE MOVE**

**PENNONI ANNOUNCES FIVE PROMOTIONS** With five decades of engineering expertise, Pennoni – a multidisciplinary engineering, science, planning, and consulting firm – has grown to more than 1,200 staff in offices strategically located throughout the U.S. Pennoni has recently made the following promotions:

- Michael Cromer, PG, DBIA, ENV SP, of Pennoni’s West Chester, Pennsylvania, office, will now serve as regional vice president for the newly created energy and design-build region and has also been promoted to associate vice president. The new energy and design-build region will be market-focused offering energy management, energy efficiency, and design-build services to industrial, commercial, federal, and institutional clients. Cromer will be directly responsible for growing the new region through increased service offerings and strategic business development.

- Tom Frederick, PE, water/wastewater director, joined Pennoni in March 2018 and is leading the firm’s water/wastewater sales efforts. Frederick has since been promoted to associate vice president. Based in Pennoni’s Virginia Beach office, Frederick will have a strong impact on projects and water/wastewater business development efforts up and down the East Coast. Frederick has been a leader in the water industry for more than 35 years and has served in a variety of roles in his career, including the chief executive and spokesperson for a regional wholesale authority in central Virginia.

- Frederick Brinker, PE, a geotechnical engineer and geotechnical division manager in Pennoni’s Bethlehem, Pennsylvania, office, has been promoted to associate vice president. He has nearly 35 years of experience in civil engineering with expertise in geotechnical and geo-environmental engineering. He is responsible for division staff management, business development, proposal preparation and reviews, technical direction and review of geotechnical reports/engineering calculations, contract reviews, financial performance, and technical mentoring/guidance of division personnel.

- Kevin Sabol, accounting manager in Pennoni’s Philadelphia office, has been promoted to assistant treasurer. Sabol is a graduate of Saint Joseph’s University with a bachelor’s degree in accounting and has been at Pennoni for almost 15 years. Outside of Pennoni, Sabol is a current board member (former treasurer) of Foundation 58, Inc., a charity that supports first responders fighting cancer.

- Dan Mullen, Esq., assistant general counsel in Pennoni’s Philadelphia office, has been promoted to assistant secretary. Mullen graduated magna cum laude from Temple University School of Law as a member of an Order of the Coif. At Temple, Mullen served as the executive editor for the Temple International and Comparative Law Journal. At Pennoni, Mullen works on a range of matters including contract negotiation, regulatory compliance, and dispute resolution. Additionally, as time allows, Mullen provides pro bono legal services for local tax-exempt organizations.

Pennoni, founded in 1966, is a multidisciplinary firm with a breadth of services including civil site, construction services, environmental, geotechnical, landscape architecture and planning, MEP, structural, survey and geomatics, transportation, water resources, and water/wastewater.

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**ED FRIEDRICHS, from page 11**

The recycled water will be “gray” water, not potable. If a person drank it, it wouldn’t make them sick. It just wouldn’t taste very good. We’ll be able to use gray water for landscape irrigation, to keep our cooling towers filled and to flush our toilets. Our first discovery in our design calculations was that we would be producing too much recycled water, and the regional authorities wouldn’t allow us to put it into the Truckee River, directly adjacent to our site.

“We’ll be building our parking garages with predominantly flat floors, suitable for transforming them into indoor, hydroponic gardens. We hope to be able to start an urban farm that will be able to supply fruits and vegetables, grown locally and picked fresh daily. This will allow us to utilize the balance of our recycled water. Along with solar-generated electricity from our rooftops to power LED lamps, color tunable to exactly the color that the plants want to grow best, we’ll be making use of everything in the project to reduce water use, reduce waste, and save money for our residents and tenants. On top of that, residents and restaurants in the district will have ready access to the freshest of vegetables. Ever tasted kale picked fresh? Instead of the bitter, tough greens I’ve had from a grocery store, it’s delightfully sweet and tender.

Recently, researchers at the University of Nevada, Reno, and Stanford, discovered new ways to not just make recycled water suitable for cooling towers and irrigation but also to make it drinkable as well. A whole new approach to making nanotechnology filters will soon allow the water to be potable at a very reasonable price.

A new organization in Reno, called the Nevada Water Innovation Campus, has representatives from our local University, the Truckee Meadows Water Authority, the City of Reno, Washoe County, and the Desert Research Institute, along with several other Nevada cities and other entities concerned with water. This effort will allow us to share resources to make Reno a model for conserving and reusing water.

Stay tuned. I’ll keep you posted as all of us progress on this very important issue. ✅

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