



PROFESSIONAL
DEVELOPMENT 6

O ISSUE 1

O VOLUME 86

O SEPT 2013

www.tesb.org ESB1894@gmail.com (716) 873-4455 Facebook.com/ESBoffice On LinkedIn too!



News Blurbs Now!...10





engineer

HELPING MAKE ESB YOUR SOCIETY

ESB NEWS

Summary for ESB's 33rd Annual Run

By Matthew J Plizga PE

Wednesday, July 24, 2013 marked our 33rd annual Engineering Scholarship Run. Located on NFTA's Outer Harbor, the event was a smashing success. Preregistration was the day before the event and set up work began at the site early Wednesday morning. The NFTA provided a large tent for ESB free of charge. Tables and chairs were put out and decorations were put up.

The volunteers that came out and help organize the race are one of our best assets from setting up the food, to putting out water for the runners, to cooking hotdogs and pouring beer. The ESB greatly appreciates everyone who donated their time. Sahlens Hot Dogs donated the grill for us to use and Certo Brothers donated the use of their mobile beer trailer and some beer too. We also offered Coke, apples, oranges, bananas, and Frito Lay chips to the runners after the race.

Everyone headed toward the starting line around 6:45 pm. We had a new addition this year: race stanchions for the starting gate to help runners easily find the starting point. John Beishline fired the gun at 7pm to get the race underway. The weather conditions could not have been better for this year's race. The sky was

Continued on page 11





OFFICERS

President Matthew J Plizga PE **Vice President**

Treasurer Temp Robin M Closs SE, PE **Secretary**

DIRECTORS

Emil Bandriwsky
Mark Masse
Jeff Mooney
Donald Owens CPSS
Ron Papaj
Christopher Sargeant PE
Marco Scofidio PE
Jeff Wach

WNY Engineer Editor Robin M Closs SE, PE

Executive Admin Director John R. Beishline

AdvertisingDon Owens CPSS

Historian Available

PRESIDENT'S MESSAGE



"Hard work, dedication!"

I talked to Robin Closs all of last year about "momentum." Our ESB Board is building momentum and it shows! The society has never been in a stronger position for growth. Robin has turned around our newsletter singlehandedly. Marco Scofidio took our ailing website, scraped it, and gave the members a fresh, new, and functional one. Don Owens has gained a lot of new advertisers for the newsletter and we now have more than ever before. The ESB scholarship run committee pulled off a fantastic four mile run again. Jeff Wach organized our annual golf tournament with BEAM and did a fantastic job.

A few individual and corporate members joined the society last year, but we are always eager to welcome

new members. Reach out to someone you know and ask them if they would like to become a member! Over 90% of our membership comes from referrals from other members.

As Vice President last year, it was a whirlwind. I can honestly say that it has been the most rewarding volunteer and professional development experience in my life and I cannot wait for this year.

Thank you to all of the ESB members who have been a sounding board whether through email, text, LinkedIn or on the phone – it was so helpful to have them to reach out to. Outgoing President Robin Closs worked tirelessly for ESB to improve our society. Having gone to the meetings and

worked with the members, I can say that the society is a living entity and our board members worked hard to build it up after a trying year. I would like to personally thank each of them and a few others too: Brad Bassano, John Beishline, Robin Closs, Tom Glynn, Mark Masse, Jeff Mooney, Don Owens, Ron Papaj, Steve SanFilippo. Chris Sargeant, Marco Scofidio, Augie Taboni, and Jeff Wach. Thank you for your commitment to the society!

As you read this, the Past Presidents Dinner will be right around the corner. I urge all of the members to attend this year. We are revamping the dinner and will be enjoying an elegant evening at the Historic Hotel Lafayette which just underwent a \$42 million renovation. The hotel is stunning and a beacon for downtown Buffalo. Rocco Termini and his team did a fantastic job. Our distinguished guest speakers are Gary Moore and yours truly Matthew J Plizga. Pending approval, this program will earn you one PDH. We welcome everyone in the engineering community to attend and hope you will bring your spouse or a guest.

One of my favorite sayings is "Hard work, dedication!" You can expect both from me this year. I am going to try to work as hard as Robin did last year, but that may be hard to do! My goals for the society are to plan more ESB networking nights to socialize new members, organize more PDH seminars, work on more fundraising events, increase attendance at the scholarship run by 30%, place more articles on local engineering projects in the newsletter, and have a good time!

I can't wait to see new faces and talk to people about the society. Exciting times are ahead! I believe you will see the momentum started by Robin and the 2012-2013 Board continue to grow even more!

Matthew J Plizga PE ESB President mplizga811@aol.com





CALENDAR OF EVENTS 09-09-13 979 Erie Avenue 6pm Ways and Means Meeting 09-09-13 7pm **Directors Meeting** 979 Erie Avenue 09-11-13 OF Luncheon? Noon Royal Restaurant 10-03-13 545pm Past Presidents Dinner Hotel Lafayette 10-07-13 6pm Ways and Means Meeting To Be Determined 10-07-13 7pm **Directors Meeting** To Be Determined 10-??-13 ??? Adopt A Highway Cleanup Colvin Boulevard, Tonawanda ??? Office Move???

TECHNICAL ARTICLE

Raising Chicago By Dan Lewis

The city of Chicago was founded in 1833, on the coast of Lake Michigan and within the Mississippi River watershed. Its location - near rivers which lead south and adjacent to a conduit eastward as well - lent itself to rapid growth. Only 200 people were living in Chicago at its founding on August 12 of that year, but it quickly grew. By 1840, well over 4000 people lived there; by 1860, Chicago had 112,000 residents. For its first century, it was widely regarded to be one of the fastest growing metro areas in the world.

But growth comes with a price, especially in a city which is just five hundred feet or so above sea level. When it rained, it flooded. Everywhere. Chicago, into the 1850s, did not have a working municipal sewage system. So water just collected and collected. Where water sits, disease brews, as Chicagoans quickly learned. Typhoid fever, dysentery, and cholera struck the city year after year. In 1854, a cholera outbreak killed as much as six percent of the city's population. Fixing the problem, though, came with a problem unto itself - how do you build sewers where the buildings already are?

The solution: Raise the buildings. No, not raze. Raise, as in to lift up. If the city could figure out a way to elevate four- and five-story (and larger!) buildings a few feet, they could install new foundations, allowing for the construction of a municipal sewage system. A few years later, they did exactly that. In January of 1858, the first building -- a four story high brick structure weighing 750 tons -- was placed on two hundred fifty jackscrews and successfully lifted more than six feet over its original height without damaging it.

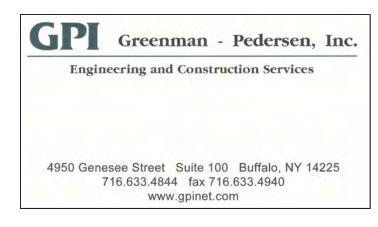
Over the next decade, much of central Chicago was similarly lifted so that the sewage system could be constructed. Most impressive perhaps, was the lifting

of a row of buildings 320 feet long on Lake Street - accomplished by roughly six hundred men over the course of five days. One hotel, the Briggs House, required dozens of men, and survived the lifting just fine. In other cases, the city also had to raise the sidewalk, roads, and anything else installed too low for a sewer system to run underneath.

In general, the lifting was successful; there are few reports of damage. (Ironically, many of the buildings lifted - including the Briggs House - were destroyed by the Great Chicago Fire of 1872). And the city took the lifting as an opportunity to do something else: it gentrified. Wooden frame buildings, which were looked at as lesser, poorer structures than the brick and iron ones, were lifted - and then removed, driven out of the city. As Wikipedia notes, the practice of putting these buildings "on rollers and moving them to the outskirts of town or to the suburbs was so common as to be considered nothing more than routine traffic."

Bonus fact: If you're ever in Chicago, try the garlic and onions. The word "Chicago" comes from a Native American word, transliterated into French as "shikaakwa" (say it aloud), which over time became the term we know today. "Shikaakwa" means either wild garlic or wild onion, both of which were plentiful in the region before settlers of European descent arrived in the area.

Dan Lewis is the director of New Media Communications for Sesame Workshop. He gets to work with Cookie Monster, Grover, and Elmo but he is not a monster himself. Subscribe to his daily free email newsletter at NowIKnow.com and learn more incredible things.





Timothy R Adowski Andrea Ciolko Paul Georgeades Gene Wach AUGUST BIRTHDAYS Fred A Dente Tom Miller Jr Matthew J Plizga PE Edward Zajac Darcy M Regan Victor Monter Warren Prince Jeff Wach

ESB NEWS

Join Us For A Night To Remember!

Hotel Lafayette 391 Washington Street Buffalo, New York 14203

Thursday October 3, 2013

545 pm Cocktails - Cash Bar

600 pm Art Deco Tour

Dinner followed by 700 pm

program/presentation

Cost is \$45 per person. Free to ESB Past Presidents and Scholarship Recipients. (No shows will be billed, however.)

Send name, complete address, phone number, payment, & dinner choice to ESB by Sept 21.

Entree choices: Filet of Sirloin **Chicken Françaisse Vegetable Wellington**

Dinner includes: Mixed greens salad Rolls and butter Potato & vegetables Chef choice dessert Coffee and tea





Mail your check (payable to ESB) at:

The Engineering Society of Buffalo, Inc 979 Erie Ave

North Tonawanda, NY 14120

Credit card payments are accepted using square.com 716-873-4455

ESB1894@gmail.com



Robert E. Knoer

THE KNOER GROUP, PLLC ATTORNEYS AT LAW

424 Main Street, Suite 1820, Buffalo, New York 14202

 $(716) 332 \cdot 0032$

E-mail: rknoer@knoergroup.com



WILLIAMSVILLE, NY 14221

(716) 634-0484 (716) 632-3420 FAX

(716) 289-6330 CELL

ROBERT HENLEY



ESB NEWS

ESB Past President's Dinner 2013

- Free drink (one per person) sponsored Elegant sit down dinner by Acqua. by AlcottHR
- Developer Rocco Termini will give a tour of the newly renovated and historic Hotel Lafavette, including guest rooms, the lobby, restaurants, etc. The tour starts promptly at 6pm and will showcase some of the art deco. features of the grand hotel.
- Gary Moore and Matthew J Plizga will provide an hour long presentation on Bridge Expansion Joints and Bearings. Pending approval, this will qualify for 1 PDH for professional engineers.
 - Raffle including Delta Sonic car wash, Delta Sonic detailing, and a 50/50

Please invite a guest! This will be a night to remember







Local/Online PDH Opportunities

For additional information regarding these opportunities, contact our office at ESB1894@gmail.com or 716-873-4455. Discounts for some pricing are available for certain society members, small companies, etc. And if you have information regarding future PDH opportunities that may be of interest to our members, please forward them to our office for inclusion in the newsletter and on our website at www.tesb.org.

Date	Hours	s Location	Information	Cost
All	Varies	Online	Multiple at http://aspe.org/webinararchives	\$130
All	Varies	Online	Multiple at http://continuingeducation.zweigwhite.com	Free
All	Varies	Online	Multiple at http://www.csemag.com/media-library/on-demand-webcasts.html	Free
All	Varies	Online	Multiple at http://campusonline.iccsafe.org/crscatalog.php	Free
9/10/13	3.5	Springville	Activated Carbon for Water Treatment	\$75
9/10/13	2	Webinar	Impacts of Wide Base Tires on Pavement Performance	\$89
9/10/13	1	Webinar	It's All About Distribution	Free
9/12/13	1	Webinar	Fundamentals and Benefits of Fiber Reinforced Concrete	Free
9/12/13	1.5	Webinar	Airport Legal Research Digests	Free
9/17/13	1.5	Webinar	Towing and Recovery Service Partnership (TRSP)	Free
9/17/13	1.5	Webinar	Incorporating Reliability Performances Measures into Transportation Planning	Free
9/18/13	1	Webinar	Tedds 2013 New Tool - 2D Frame Analysis	Free
9/19/13	1.5	Webinar	Understanding and Mitigating Disease Transmission at Airports	Free
9/23/13	1.5	Webinar	Lessons from DOT Activities Addressing Data for Decision Making and Performance Measures	\$49
9/23/13	1.5	Webinar	Supporting Suspended Loads from Building Structural Elements	\$349
9/24/13	12	Webinar	AISC Basic Steel Design given in eight 1.5 hour sessions starting Sept 24 and ending Nov 19	\$900
9/24/13	1.5	Webinar	Modular Pavement Technology	Free
9/24/13	1.5	Webinar	2014 TRB 93rd Annual Meeting - How to Survive and Thrive	???
9/27/13	1	Webinar	Design Masonry Structures Efficiently	Free

space is
available.
See page 11
for rates and
contract.
Contact us
by email at
ESB1894@gmail.com
or by
phone at
716-873-4455.



AVANT BUILDING

200 DELAWARE AVENUE

BUFFALO, NEW YORK

WWW.JAECKLE.COM

SUITE 900

14202-2107 T: 716.856.0600 Navigating complex environmental litigation, compliance and land use planning before state and federal regulators.



Steven J. Ricca 716.843,3887 sricca@jaeckle.com



Charles D. Grieco 716.843.3844 cgrieco@jaeckle.com



Dennis P. Harkawik 716.843.3848 dharkawik@jaeckle.com



Join our Economic & Land Development Forum Group on LinkedIn.

Report of the PE Review Course Committee By Donald R McMahon PE

The PE Review Course Committee, a joint committee with representatives from the Erie/Niagara Chapter of the New York State Society of Professional Engineers, The Engineering Society of Buffalo, and the University at Buffalo School of Engineering and Applied Sciences, has begun planning for the next review course for the Fundamentals of Engineering Exam (FE Exam). The course is scheduled to begin on Tuesday, September 10, 2013 at 7 pm in the Natural Sciences Complex Room 216 on the University at Buffalo North Campus.

The committee is planning some changes to the course syllabus to reflect the exam scope changes, effective January 1, 2014. The National Council of Examiners for Engineering and Surveying (NCEES) has changed the exam scope to a discipline specific exam. The exam will differ for mechanical, civil, environmental, and electrical engineers but will still contain some common topics. The FE review course will focus on common topics, such as

mathematics, probability, statics, fluid mechanics, ethics, and economics.

NCEES also has changed the format from an 8-hour pencil exam (the last pencil exam is in October 2013) to a 6-hour computer based exam. Now the exam will be given at exam centers. More details can be found on the NCEES website, www.ncees.org.

The committee mourns the passing of our long-time committee treasurer, Robert A. Mathisen, PE. Bob was a member of both The Engineering Society of Buffalo and the Erie/Niagara Chapter of NYSSPE.

Donald R McMahon PE is a past president of ESB and one of the founding partners of McMahon & Mann Consulting Engineers, PC. He can be reached at dmcmahon@mmce.net.



Freeze Drying Solutions

IMA Life Freeze Drying Solutions is a world leader in the design, technology and manufacture of aseptic processing and packaging equipment for the global pharmaceutical industry. From R&D through to



production and on-going services, we have been providing better process solutions for over fifty years.

The Tonawanda location is the center of global Freeze Drying excellence.

We are always looking for qualified engineers. If interested, contact us at hr.us@imalife.com

2175 Military Road Tonawanda, NY 14150 Tel: (716) 695-6354



Application

8

Date:

I hereby make application to the Engineering Society of Buffalo, Inc. and I agree to abide by the Constitution and By-Laws governing this Society.
Name:
Street Address:
City:
State: Zip:
Residence Phone:
Where Employed:
Firm Address:
City:
State: Zip:
Phone: Fax:
Email:
Position in Firm:
Nature of Business:
Send mail to:
Residen <i>c</i> e Business
Signature of Applicant

Biography

newsletter "The Western New York Engineer". For this purpose we would like The Engineering Society of Buffalo contemplates publishing biographical sketches of members in the monthly the following information:

Z Married Y Date of Birth:

Member of what other clubs/societies:

Education:

In what engineering field(s) are you interested in?

2 Yes Resume attached? Sports & Hobbies:

Name of Spouse and Children: Children: Spouse:

Name as it should appear on ESB Membership Card:

Sponsored by

Business & Community Affairs Activities in which you would like to Program Committee Newsletter/Roster Scholarship Run Bowling League Scholarship Golf Outing Advertising Education **Activities** participate



Elected by the Board of Directors

Year				
، Day	.ed:	\$15.00	\$	\$
Month	Amount Received:	Initiation Fee	Dues	Total

\$80 Individual

\$35 Non-Resident \$30 Retired \$20 Student



WESTERN NEW YORK ENGINEER ADVERTISING CONTRACT

SEPTEMBER 2013 - AUGUST 2014

The Western New York Engineer is a monthly publication of ESB

Please insert our advertisement in the ESB Newsletter per terms and stipulations of the following rates:

Select One	Ad Start Month	Number of Issues To Include Ad	Business Card Maximum size 3-3/4" wide x 2" tall	1/4 Page Maximum size 3-3/4" wide x 4" tall 7-1/2" wide x 2" tall	1/2 Page Maximum size 7-1/2" wide x 4" tall	Full Page Maximum size 8" wide x 10" tall
	September	11	\$195	\$345	\$550	\$980
	October	10	\$190	\$340	\$540	\$960
	November	9	\$185	\$335	\$530	\$940
	December	8	\$180	\$325	\$520	\$920
	January	7	\$175	\$315	\$500	\$880
	February	6	\$165	\$300	\$480	\$840
	March	5	\$150	\$275	\$450	\$785
	April	4	\$130	\$240	\$400	\$695
	May	3	\$105	\$195	\$330	\$570
	June	2	\$75	\$140	\$240	\$410
	July/August	1	\$40	\$75	\$130	\$215
	One Time	1	\$40	\$75	\$130	\$215
	Color Back Half Page 11 months					\$1,300

SB Corporate Members receive a 20% discount from the above pricing. You may update your membership to corporate at any time by paying the difference in dues for the year.	
Copy Enclosed (business card or similar) Electronic file (.jpg, .gif, or similar)	
☐ Do not wish to advertise ☐ Payment Enclosed ☐ Please Bill Me	
ompany Name ontact Name	
reet	_
ty, State, Zip	
none	
gnature	

Return Contract to:
THE ENGINEERING SOCIETY OF BUFFALO, INC.
979 ERIE AVENUE
NORTH TONAWANDA, NY 14120
PHONE: 716-873-4455

EMAIL: ESB1894@GMAIL.COM MAKE YOUR CHECK PAYABLE TO "ESB"

News Blurbs Now! (NBN)

Don Owens CPSS from Earth Dimensions Inc has changed the letters after his name. Why? Well because he is now a Certified Professional Soil Scientist, of course. Congratulations!

Joseph M Lowry PE is one of our newest members. He is the President of RJR Engineering PC and has been with the company since his junior year in high school. From pen plotters and odorous blueprint machines, to painting and drafting, to a nine year project for Bechtel, this mechanical engineer doesn't look to be stopping anytime soon. Welcome Joe.

An-Cor Industrial Plastics specializes in the design, engineering, manufacturing, installation, and maintenance of custom fiberglass reinforced plastic (FRP) industrial equipment and has been doing it for over 50 years.

Barron & Associates PC provide geotechnical and environmental consulting and special inspections services in Western New York. Their website boasts that if they do not return your phone call within 24 hours, they will pay for a single yearly membership to a local professional affiliation of your choice, such as The Engineering Society of Buffalo Inc! Tell all of your friends to contact them at 716-759-7821.

Eberl Iron Works Inc commemorated their 90th year with a unique sculpture that contains almost every product of the family owned business. It stands about six feet tall and, of course, wears the corporate color blue proudly. Visit it at company headquarters, 128 Sycamore Street in Buffalo NY.



National Fuel Gas Company is looking to hire a compression engineer for its Williamsville, NY location.

The Substructure of the Bird Island Pier in Buffalo NY is being reinforced by concrete being blown over placed stone and into voids. This will protect the pier from the Niagara River. Creating a safe pier during icey and windy/wavy conditions is almost an impossible task, but not for the crew of the Buffalo District Floating Plant!

For more details or to submit your noteworthy, newsworthy blurb contact ESB1894@gmail.com! We want to know about your recent projects, awards, hires, promotions, patents, new products, partnerships, open houses, etc.



Donald R. McMahon, P.E.

Geotechnical & Environmental Specialists

2495 Main Street, Suite 432 Buffalo, NY 14214

P: (716) 834-8932 • F: (716) 834-8934 www.mmce.net dmcmahon@mmce.net



Professional Engineering • Business Consulting

Brian D. Shiah, P.E.

in, P.E. PERMITTING

661 Main Street Niagara Falls, NY 14301

- SOLID WASTE
 HAZARDOUS WASTE
- PH 716 285 3920 FA 716 285 3928
- DISPOSAL / RECYCLE
 TANK SERVICES
- CELL 716 579 9898
- CONSTRUCTION

Email: bshiah@ensolinc.com

Providing Cost-Effective Environmental Solutions for Businesses & Municipalities

Continued from page 1

sunny with filtered clouds adding a gentle breeze. The four mile course is flat and fast and the runners proved it with blazin' times. Dean Goodison finished first place with a time of 23:02, Sophia Tasselmyer came in second at 24:22, and Matty McGuire came in third with a time of 24:34. Our youngest runner was 13 year old Emilee Waker and our oldest runner Ted Sullivan, 81, finished in 47:30! GIVE IT UP!

After the race, the Society gave out awards for all age groups and the runners posed for their picture with their metal/trophy. DJ Pat Cray was spinning up tunes and Robin and Brad (two non-drinkers) were pouring the cold beer. Runners and guests danced until 10 pm.

I asked a lot of runners what they thought of the race and every one of them said they loved the setting at the Outer Boat Harbor.

The race would not have been possible without all the time and effort that the volunteers put in. The ESB would like to thank John Beishline, Herb Berlin, Robin Closs, Chuck Cole, Pat Conway, Carm Fiorello, Paul Georgeades, Tom Glynn, Bob Henley, John Kolber, Don McMahon, Ray Milkie, Steve Sanfilippo, Rebecca Wightman, and everyone else who was there volunteering!:)

Even though the ESB four mile race is a lot of work, I had a blast helping out and I can't wait until next year as I'm sure everyone else feels the same way too.

Matthew J Plizga PE is ESB President and can be reached at mplizga811@aol.com.

have a great "Always time at this race And it's a great cause too! Matthew McGuire

"The race was great!" -Kurt Scott

"I HAD A GREAT TIME AND YOU ALL PUT ON A VERY NICE RACE! -DEAN GOODISON



"GREAT EVENT. GREAT LOCATION. Congrats!" -Tim Finney

I liked that it was four miles instead of 3.1. there are plenty of 5Ks in the SIMMer. LOVED the location along the Water-Stay there great path to run onplenty of parking and space for the party liked the party layout-keep

BARRON & ASSOCIATES, P.C.

Geotechnical and Environmental ConsultingEngineers providing design recommendations for foundations & earth retaining systems, special inspection services, soil & material testing, slope stability & settlement evaluations, environmental phase I & II site assessments, and remediation overviews

BUFFALO DRILLING CO., INC.

Geotechnical and Specialty Drilling Contractor providing equipment and labor for investigative drilling, well construction, drilled pier foundations, soldier piles, mini-piles and anchor systems.

BARRON & ASSOCIATES, P.C.

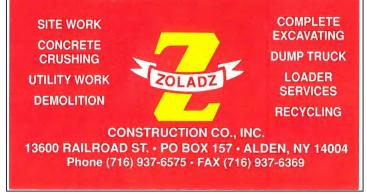
-Brian R Campbell



10440 MAIN STREET CLARENCE, NY 14031 PHONE: (718)759-7821

BUFFALO DRILLING CO., INC.

12284 MAIN STREET AKRON, NY 14001 PHONE: (716)542-5377 AX: (716)542-3371



Heighten Your Intuitiveness

By Richard G Weingardt PE

Intuitive: using or based on what one feels to be true even without conscious reasoning: instinctive.

America's intuitively talented and experienced structural engineers are rapidly being replaced by a new breed of engineer – textbook intelligent, steeped in theory and savvy about computers. They study the latest greatest engineering techniques and know all about BIM and other computer programs in vogue.

But as many middle-level and upper-level industry professionals tell me, an alarming number of young engineers lack common sense about how buildings are put together. They operate in the cyberworld with no intuitive abilities or "feel" for structural systems or their elements. They can't recognize instantly, for instance, that a six-inch concrete slab won't span 35 feet or that eight number-11 re-bars won't fit into a 12-inch space. They haven't seen or lifted a piece of number-11 bar, so they don't essentially know how much it weighs. How many Volkswagens are represented by, say 17 kips? That question evades many young engineers.

The younger generation tends to rely blindly on computer results for structural design, rarely questioning the numbers their machines spew out. But many times, computer figures are totally wrong. Why? Causes can include wrong assumptions and misapplications of the software itself. As is often said, "Garbage in, garbage out."

Seasoned practitioner John Davis (head of RWC) says, "Total reliance on computers for advanced structural designs doesn't give you a good sense of what you're doing or a rational approach on how to build something. For that, you need intuitiveness. Just because a computer says it's okay doesn't make it so. You've got to use your head."

Grant Martin (senior engineer with Black and Veatch) says, "I enjoy trying to teach young engineers a few things outside of plugging in umpteen dozen load combinations into a computer program. Some comment that many of my references look prehistoric. I say that's okay because they're still as relevant today as they were years ago."

Combining the computer smarts of younger engineers with the intuitive skills of older engineers will produce a spectacular combination. But how can the newly graduated take the advantage of the experience and intuitive talents of their seniors before that generation disappears? By learning from them not only time-tested design practices but things such as how to dampen bouncy floors and eliminate creep problems, and where to put construction versus control joints.

My advice to young engineers: Seek as many soon-to-be-retiring professionals as you can. Find a mentor with intuitive skills. In addition, as

Darren Fox (veteran project manager with RWC) says, "Spend as much time as possible at construction sites seeing what you detailed (and drew) actually being built. Observe what a thirty-six-inch wide-flange or six-foot-deep precast bridge girder actually looks like." Building scale-model structures and load testing them under different conditions also helps develop intuitiveness.

Also, every so often in your career, take a short sabbatical and work for a contractor and/or fabricator. Take time to learn from others' mistakes – hopefully ones that haven't involved structural failure that caused loss of life or treasure. Unfortunately, we tend to learn more from structural catastrophes than those builds that go smoothly.

The causes of most failures can be traced to four main things:

- 1. Human misjudgments or errors
- 2. Flawed materials or methods
- Acts of nature
- 4. Misdeeds of terrorists.

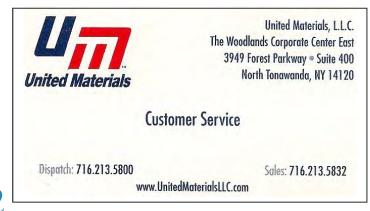
For example, the 1981 Hyatt Regency walkway disaster in Kansas City involved the first two of these four. An impractical hanger system generated a significant detail revision on the shop drawings. The resulting connection detail was cavalierly approved without proper analysis. The Hyatt Regency catastrophe confirmed that design deficiencies can result from mistakes in judgment or poor project management, rather than from purely technical errors.

Keep in mind that technical competence doesn't translate into sound judgment. As the designers of structures, engineers are ultimately responsible for the safety and performance of their buildings. That means they must stay involved – from the design phase through to the contractor's execution of their designs and sometimes well into the life of their structures.

Blending intuitive thinking and good judgment with expertise in the latest in theory and computer usage makes up that winning combination. Mix that with not allowing technical competence to override every decision and you'll greatly reduce the likelihood of experiencing a catastrophe like Kansas City's Hyatt Regency.

Reprinted from Structural Engineer magazine with permission.

Richard G Weingardt PE can be reached at rweingardt@gostructural.com and has been a practicing structural engineer for 50 years. He has written ten books, received multiple awards, held numerous leadership roles in profession/community groups, appeared on various television stations, and has travelled to all seven continents, six as a motivational speaker.





Technical Professional Industrial Staffing Direct Placement Seasonal Payrolling

716.822.6166

www.egwpersonnel.com

Arcade

Buffalo - Niagara •

Rochester

What Are Your Rituals? Is Goal Mapping Included? By Josh Patrick

As much as I hate to admit it, goals are important. Goals give you direction. They help you look down the road to where you want to go. At the same time only focusing on the future allows you to forget about enjoying the journey. As long as you remember to enjoy today, go for the goal. It'll help you focus on what's important and what adds value to your life.

Goal Mapping is a ritual you need to learn about.

I've become a big fan of Goal Mapping. I think it's one of the few processes where all key factors for successful goal achievement are addressed. In a goal map you get to think about these four things:

- What you want to accomplish.
- Why this is important.
- How are you going to get to your destination?
- Who's going to help you?

Many goal processes talk about what and how but most forget the really important stuff, why and who. It's why that gives you the reasons you want to move forward. All outcomes require help and it's useful to know who you're going to ask before you start on your adventure.

After you've developed your map, you'll want to think about rituals that you can use to help move the ball forward. These rituals will help you anchor your goal map in your subconscious. When you use the four anchors below your success rate will likely improve and be easier to track.

Sign your map and make a commitment.

After you build your goal map, sign it. The act of signing your map helps you make a commitment to move yourself in the direction you want to go. It's not a big deal to sign your map. It is a big deal to make a commitment that you'll be serious about pursuing activities that will help make your outcome real.

Look at the map and visualize the outcome every morning. Put your map in place that you'll see it every morning. For me, I

keep my maps on my desk. The first thing I do when I go in my office is pick up my maps and take a look at what I want to accomplish. By doing this I've started my brain to recognize opportunities that can help me reach my outcome.

Say it out loud.

This is where it might start to get a little tough. I don't know about you, but I often feel a little silly when I talk out loud about goals to myself. If you take the time to do this, you'll find the more you say what you want out loud, the more you're willing to change your behavior. When you change your behavior you start moving down the road to outcome achievement.

Share it with your family and friends.

This is the really hard part. When you publicly share your goals with those who are close to you, you make a commitment to others beside yourself. It's easy to tell yourself that you're going to do something. It's much harder to tell others that you're going to do something. This act requires you to take action if you don't want to look silly in front of those who matter in your life.

You see, if you don't take action then all of the goal planning in the world is a waste of time. The four steps above are all about taking action or at least helping you put yourself in a position to take action. I know that if you go through the steps of building a goal map, you're going to want to achieve your outcome and build a better life. Having tools that help you take actions that you want to take will help you make movement towards your outcomes. Isn't that what you want in to happen? If so, start by stepping a little outside your comfort zone and declare to the world what you want.

Josh Patrick is a founding partner at Stage 2 Planning Partners. His specialty is helping private business owners create personal and business value. He blogs four times a week at www.stage2planning.com/blog and is a contributor to the New York Times You're the Boss blog, http://boss.blogs.nytimes.com/author/josh-patrick/. Sign up for an interesting newsletter emailed about twice a month at http://www.stage2planning.com/sign-up-for-newsletter.





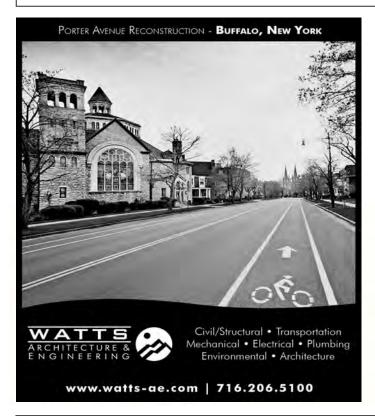
ANGEVINE ACOUSTICAL CONSULTANTS, Inc.
P.O. Box 725 East Aurora, New York 14052
Tel (716) 652-0282 Fax (716) 652-3442

Tel (716) 652-0282 Fax (716) 652-3442 (800) 836-3834 AngevineAc@verizon.net

Architectural Acoustics
HVAC Noise and Vibration Control
Environmental Noise Impact and Mitigation
Industrial Noise and Machine Vibration Control

Did You Know?

Corporate members are allowed an employment ad twice per year in this newsletter...for free! (Maximum quarter page size.)





GZA GeoEnvironmental

535 Washington Street, 11th Floor Buffalo, New York 14203 716-685-2300

Environmental and Geotechnical Consulting Engineers

SERVICE, SOLUTIONS, SATISFACTION

www.gza.com



EARTH DIMENSIONS, INC.

Soil & Hydrogeologic Investigations · Wetland Delineations 1091 Jamison Road · Elma, NY 14059 (716) 655-1717 · fax (716) 655-2915 · edi@earthdimensions.com

We Know Your Soils

Providing Experience & Expertise for Over 36 Years

Do you have a Cooling Tower?

Do you have a 7G Pesticide License for handling biocides?

M.I.S. of America, Inc. will be teaching the full 5 day class to qualify and prepare individuals to take the 5 day exam.

People may attend one or more days to receive recertification credit. For more information visit our website: www.misofamerica.com

Click on Training, 5 Day or Call us at: 716-681-3758



Wanted:

Help Your Society!

ESB Board Members Committee Chairs "APPIN"

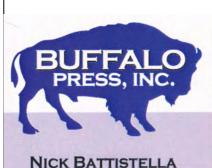


716-877-7400 www.princerp.com

137 Arthur Street Buffalo, NY 14207 USA (716) 877-7400 • fax (716) 877-0743



"Panacea" Gasketing







P.O. Box 410 • 105 Center Road • West Seneca, NY 14224 Tel. 716-822-5755 • Fax: 716-822-8429

=== NORTH STAR SUPPLY Co. Inc.

WHOLESALE DISTRIBUTORS

MAIN OFFICE: 55 Thielman Dr., Buffalo, N.Y. 14206-2365 • 716 / 853-7332 FAX 716 / 856-6259

BRANCH: 21 Trolley Circle, Rochester, N.Y. 14606-4216 • 585 / 426-7777 FAX 585 / 426-2613

Wholesale Distributors of Heating, Air Conditioning and Sheet Metal

Commercial, Industrial, Residential







Serving Contractors throughout Western New York for over 90 Years

Don't You Have Enough to Juggle?



Leave your HR to the Professionals

Our Clients Have More Time to Run Their Businesses While We Handle:

- Human Resources Administration
- Benefits Design and Administration
- Regulatory Compliance
- Employee Relations and HR Issue Resolution
- Workers' Comp & Safety Administration
- Payroll & Tax Administration
- HR Related Training and Support
- Employee Handbook Development and More...

To Learn More Contact:

Tim Finney, CSP, PHR Telephone: (888) 774-7236 email: timf@alcottgroup.com 1150 Wehrle Drive, Williamsville, NY 14221



wwww.alcottgroup.com





ESB Past
Presidents
Dinner
at Hotel
Lafayette



THE ENGINEERING SOCIETY OF BUFFALO 979 ERIE AVENUE NORTH TONAWANDA, NY 14120 Non-Profit Organization US Postage Paid Buffalo, NY Permit No. 2734

Current Resident or:



716.874.1710 www.Frey-Electric.com

