ICRI CONCRETE REPAIR BALTIMORE WASHINGTON

THE NEWSLETTER OF THE BALTIMORE WASHINGTON DC CHAPTER OF ICRI

THE AGGREGATE

3RD QUARTER 2019

- PRESIDENT'S MESSAGE
- CHAPTER DINNER RECAP
- SCHOLARSHIPS & AWARDS
- 2019 GOLF TOURNAMENT

CHAPTER CALENDAR

3rd Quarter Dinner Meeting
September 19, 2019

Outstanding Project Applications Deadline
September 20, 2019

Chapter Scholarships Deadline
September 27, 2019

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ICRIBWCHAPTER.ORG

MESSAGE FROM OUR PRESIDENT

KEVIN KLINE - *CONCRETE PROTECTION & RESTORATION, INC*

Hello fellow ICRI B-W Chapter Members! I hope everyone has been enjoying their summer full of warm weather and family vacations. For our region this is always the busiest time of the year for construction as everyone rushes to start and finish projects before the winter returns with snow and colder temperatures, as it always does.

A recurring goal of the board has been to increase our chapter's membership. As we are already one of the largest ICRI chapters in the country, this may be easier said than done. However, for 2019 we have decided to stick to that overall goal, but to also focus more on growing our student involvement. We have done this by reaching out to some of the local colleges beginning with Catholic University and University of Maryland. Our Scholarship Committee Chair, Kevin Goudarzi, made a visit to Catholic University to introduce to some of their Civil Engineering students to ICRI. He presented to a pre-stressed concrete class and to the student chapter of ASCE. Kevin will also be inviting some faculty and student leaders to our Q3 dinner meeting in hopes of them becoming further acquainted with ICRI and what we can offer. The next step is to get involved with some career fairs at these colleges. With that there will be some marketing opportunities for our member companies and potential opportunities for students to find internship and/or employment after graduation. If anyone has any interested in becoming more involved with our student outreach or has any contacts at other local universities they think would be interested in working with ICRI, please do not hesitate to reach out to Kevin Goudarzi.

As we move into the fall there are several ICRI events, both local and national, that are definitely worth getting involved with. Below is a short list of events coming up, but please visit our website at http://www.icribwchapter.org/ for more information.

- Our third quarter dinner meeting is coming up on Thursday September 19th, 2019 back at the Maggiano's in Tyson's Corner, VA. Our Programs Committee is trying to finalize the details for the presentation, but a flyer with other event information is included with this newsletter.
- The deadline for our OUTSTANDING PROJECT SUBMISSIONS is Friday September 20th, 2019. We didn't have many submissions last year, so the Awards Committee has decided to introduce some incentives for the 2019 awards. In addition to those new incentives, top three winners will have the opportunity to present their projects and be recognized for their hard work at our Awards Banquet in November. Please check out the submission information within this newsletter or on our chapter website. You can also contact Brian Radigan with any questions.
- Scholarship Applications are also due on Friday September 20th, 2019. With one of the biggest scholarship offerings out of all ICRI chapters, we take pride in being able to award scholarship money to students looking to make a career in the engineering/construction field. Info on scholarship applications can be found on our website. Or you can contact Kevin Goudarzi if you have any questions.
- Next event, and a large contributor to our scholarship budget, is the 28th Annual Golf Outing. This event is scheduled for Thursday October 3rd, 2019. We will be returning yet again to the Timbers @ Troy in Elkridge, MD. More info to come, but we are looking forward to another fun and successful outing.
- Our fourth quarter dinner meeting and annual awards banquet will be held back at The Hotel at the University of Maryland on November 7th, 2019.
- The fall convention for ICRI National this year will be held in Philadelphia, PA from Monday November 11th through Wednesday the 13th. The theme for this convention is "Historic Restoration – The Art and Science of Preserving Structures" which I am sure will include some very interesting technical presentations and project profiles. There is always a pretty good turnout of B-W Chapter members at these conventions, but due to our close proximity to Philadelphia, I am hoping we can really make our presence known. Conventions are a great way to not only meet up with some local friends, but also to meet and network with industry leaders from across the country and perhaps get involved with ICRI on a national level.
- And as always, our final event for the year will be our Annual Fall Seminar which is scheduled for Thursday December 5th, 2019 at Concrete Protection & Restoration's main office in Baltimore, MD. More info to come.

Our chapter website is always a great place to find information about our local chapter and the events, but do not hesitate to reach out to myself or any other board members if you have any questions. Make sure to mark your calendar and we are looking forward to seeing everyone at these exciting events. Let's finish off 2019 strong!

ON THE JOB LIGHTNING SAFETY

BY JAMES WEST

In June 2013, lightning struck and tragically killed a construction worker on a jobsite near Naples, Florida. According to local reports, the worker saw severe weather approaching and decided to head down from the rooftop where he had been doing rebar work. Unfortunately, lightning struck as he climbed down the scaffolding.

While concentrating on the job at hand, it's tempting to shrug off approaching severe weather and remain on the site to get a few extra minutes of work completed. But the results, as this recent event demonstrates, could be deadly.

A Real Danger

According to National Oceanic and Atmospheric Administration (NOAA), an average of 53 people are struck and killed by lightning each year in the United States. Hundreds more suffer lifelong injuries, including hearing and vision loss, from a direct or even an indirect hit from a lightning strike. Being struck by lightning may be more common than most people think. According to the National Weather Service, an individual's chances of being struck over the course of a lifetime are about one in 10,000. In comparison, winning the Mega Millions jackpot odds are 1 in 175 million and winning the $10,000 Mega Millions prize for picking four out of five correct numbers and the Mega Ball is about one in 689,000.

The majority of lightning deaths occur during summer months, when storms can be frequent and people are more likely to be outside. Not surprisingly, deaths resulting from lightning strikes have been most common in states that see the most thunderstorms every year. Florida is widely considered to be the lightning capital of the United States, and more people have been struck and killed by lightning in Florida that any other state.

Many contractors often spend long hours working outdoors, which puts them at a greater risk. Adding to the danger, construction sites often are replete with items such as tall metal towers and scaffolding, which are more likely to get struck by lightning. Metal pipe, phone lines and fences all can carry an electric current, and water conducts electricity. Jobsites also may be large and open, which increases the time workers need to move to adequate shelter.

Sheltering From the Storm

Seeking shelter after hearing thunder and spotting a lightning flash help many employees know when to stop work and find more substantial shelter on the jobsite. As a rule of thumb, if a worker is close enough to see the lightning or hear thunder, he or she is already in danger. Lightning can strike well outside of the rain-producing portion of a thunderstorm and even outside of the main storm entirely. In fact, a strike about 10 miles from a storm is not uncommon.

If a storm is on its way, stop all work and move to a safe indoor area. Typically, this would be a permanent, enclosed building with four walls and a roof—not a pavilion, tent or open structure. If this type of building is not available, cars or trucks are better—but not ideal—choices, and can provide some protection if all of the windows are closed.

When no good shelter is available, avoid trees and tall objects. It is much safer to squat low to the ground. Cover your ears and make as small of a footprint as you can, so only your feet touch the ground.

No doubt, inside a substantial shelter is the safest place during a storm, yet some dangers remain.

- Do not use corded phones. Lightning can travel through phone lines.
- Lightning can also travel through pipes. Cease indoor work on metal pipes and wiring.
- Have flashlights ready. Power failures often occur during thunderstorms.
- Unplug or turn off tools and machines. Lightning can cause damaging power surges.

Always wait 30 minutes after the last flash of lightning before returning to work.

Lightning Safety Tips

- Check the forecast before heading out. Use a smartphone, check the radar and use the lightning detection features in the weather app (for example, WeatherBug) to check if storms are heading your way.
- Scan the sky for large cumulus clouds, which are large towering white, rounded clouds with grayish or dark undersides. Cumulus clouds offer early signs of thunderstorms.
- To check the distances of the storm, use the 30-second rule. Count how many seconds from the flash until you hear thunder. More than 30 seconds means you are at least 6 miles away from the storm. Less than 30 seconds means you are in danger and should seek shelter.

The nonprofit organization StruckbyLightning.org offers these tips for helping someone who has been struck by lightning.

- People struck by lightning carry no electrical charge and can be handled safely.
- Call for help. Get someone to dial 911 or the local emergency medical services number. The injured person has received an electrical shock and may be burned where they were struck and where the electricity left their body.
- Give first aid. If breathing has stopped, begin rescue breathing. If the heart has stopped beating, a trained person should give CPR. It is important to help victims as soon as possible. If left untreated, people struck by lightning can suffer from a variety of long-term, debilitating symptoms.

The good news is that lightning deaths have decreased during the past five years. Education has played a major role in reducing deaths and injuries. The popularity of tools such as smartphone apps that track the weather and inform users of lightning strikes close to their location also have contributed to safety.

The next time you are in the path of thunderstorm, remember: "When Thunder Roars, Go Indoors." It could mean the difference between life and death.

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James West is a Senior Meteorologist at Earth Networks (www.earthnetworks.com), a Maryland-based firm that is Taking the Pulse of the Planet® by gathering and analyzing atmospheric observations using the world's largest weather monitoring and lightning detection networks. Earth Networks supports enterprises across a wide range of sectors, helping to safeguard lives, prepare for weather events, and optimize business operations. The company's popular WeatherBug® mobile apps and website help millions of consumers Know Before™ with local weather, superior forecasts and advanced severe weather alerts. Email marketing@earthnetworks.com to learn more.

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ARE YOU IN COMPLIANCE WITH VIRGINIA'S STATE CONTRACTOR LICENSE REQUIREMENTS?

By Jennifer A. Mahar, Esq. (jmahar@smithpachter.com or 703-847-6300)

The arrival of the New Year is not only a good time to review your strategic business plan for 2010, but a good time to conduct a compliance review of your company's business and contractor licenses. Conducting business in the Baltimore/Washington, DC corridor presents the possibility that your company is subject to the requirements of multiple jurisdictions – District of Columbia, Maryland and Virginia. Each jurisdiction has its own requirements.

If you are a contractor planning to conduct business in Virginia, particular care must be taken to comply with Virginia's state contractor license requirements. Virginia's contractor license statute is a penal statute and is thus strictly construed by Virginia courts. As a result, a contract entered into by a contractor who is not in compliance with Virginia's contractor license requirements when the contract is executed is void unless the contractor "gives substantial performance within the terms of the contract in good faith and without actual knowledge that a license or certifi cation was required by this chapter to perform the work for which he seeks to recover payment." Accordingly, contracting in Virginia without the proper Virginia state contractor license could result in an unenforceable contract whereby you risk not receiving payment for your work. You also risk exposure to criminal penalties as it is a Class 1 misdemeanor (up to 12 months in jail and/or maximum fi ne of $2,500) to contract in Virginia without the proper state contractor license.

With limited exception, contractors who bid upon or undertake contracting work in Virginia must possess a valid Virginia state contractor license issued by the Board of Contractors, a division of the Virginia Department of Professional and Occupational Regulation ("DPOR"). Virginia's contractor license statute provides: "No person shall engage in, or offer to engage in, contracting work in the Commonwealth unless he has been licensed under the provisions of this Chapter." VA Code § 54.1-1103(A). The statute broadly defi nes contractor and contracting work as:

> ***any person, that for a fi xed price, commission, fee, or percentage undertakes to bid upon, or accepts, or offers to accept, orders or contracts for performing, managing or superintending in whole or in part, the construction, removal, repair or improvement of any building or structure permanently annexed to real property owned, controlled, or leased by him or another person or any other improvements to such real property.***

VA Code § 54.1-1100. This licensing requirement applies to contractors at all tiers of contracting, including general contractors, subcontractors, and sub-subcontractors. Limited statutory exemptions to this broad licensing requirement exist and are listed at VA Code § 54.1-1101. Virginia divides its contractor licensing scheme into three classes – Class A, Class B and Class C, which are tied to the contractor's volume of work or size of the contractors' single contract undertaking. The license classes are defi ned as follows:

- ***Class A license – total value referred to in a single contract or project is $120,000 or more, or the total value of contracting work undertaken by the contractor within any 12-month period is $750,000 or more.***
- ***Class B license – total value referred to in a single contract or project is $7,500 or more, but less than $120,000, or the total value of contracting work undertaken by the contractor within any 12-month period is $150,000 or more, but less than $750,000.***
- ***Class C license – total value referred to in a single contract or project is over $1,000, but less than $7,500, or the total value of contacting work undertaken by the contractor within any 12-month period is less than $150,000.***

To obtain a Virginia state contractor license, applicants must submit an application and fee to the Board for Contractors. Applicants for Class A and Class B contractor licenses must pass a written exam and complete an eight-hour Board-approved business course. Virginia state contractor licenses are valid for two years. To renew a license, a contractor must submit a renewal form and renewal fee within 30 days of the license's expiration date. It is important to note that the Virginia state contractor license is held by the person or fi rm that applied for the license and cannot be transferred to another person or fi rm. Further, a contractor who does not possess the required Virginia state contractor license when the contract is executed cannot cure this defect by subsequently obtaining the required license. It is therefore critical that you obtain the proper license before you pursue work in Virginia. The Board for Contractors maintains an extensive website that can be accessed at www.dpor.virginia.gov. Materials available on the website include the Virginia Contractor Licensing Statute (VA Code § 54.1-1100 et seq.), the Board's regulations (18 VAC 50-22-10 et seq.), and license applications. The Board's website also includes a licensee lookup feature through which you can verify the status of your company's Virginia contractor license.

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ICRI Baltimore Washington Chapter 3rd Quarter Dinner Meeting

Thursday, Sept. 19th, 2019

Maggiano's Tysons Corner
2001 International Dr
McLean, VA 22102

SCHEDULE:

4:00 pm Board Meeting
5:30 pm Social Hour
6:30 pm Dinner & Presentation

REGISTRATION:

Member Rate: $50
Non-Member Rate: $60
All after 9/16/19: $60

REGISTRATION DEADLINE IS SEPTEMBER 16, 2019

Company: _____

Name: _____

E-mail: _____ Phone: _____

Number of Attendees: _____ Attendee Names: _____

_____

Gary Schue - General Superintendent
United Building Envelope Restoration

The ICRI Fall National Conference will focus on ***Historic Restoration: The Art and Science of Preserving Structures.*** In advance of the Fall Conference, the BWC Chapter has invited Gary Schue to present at our 3rd Quarter Dinner Meeting. Gary will discuss a brief overview of historic masonry and techniques as well as a deeper discussion of "Old vs. New" in which the listener will discover how technology in masonry construction has evolved over time. Specific examples of real world repair techniques will be related neatly within the confines of historic masonry.

Gary has worked in construction since the summer of 1969 and graduated from George Mason University in 1974. In 1974 Gary began working in masonry with United Masonry and went on to open his own masonry company, GC Schue Inc., in 1985. In 2009 Gary decided to close GC Schue Inc. to work as a masonry consultant for large masonry companies completing marquis masonry projects all around the Mid-Atlantic region. In 2018 Gary brought his unique skillset in both new and historic masonry to United Building Envelope Restoration working as General Superintendent.

Scan and email this completed form to Chapter Secretary, Brian Radigan by February 1st. Checks may be mailed with your form or you can bring them with you to the meeting.

Brian J. Radigan
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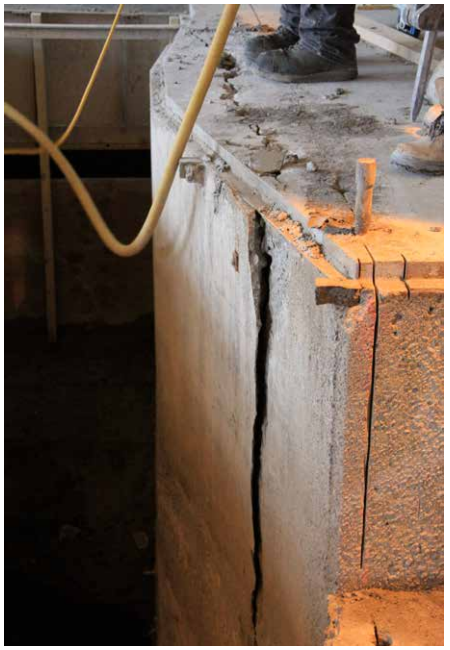
Alternative Concrete Demolition Techniques

Alternatives to mechanical concrete breaking are sometimes the best approach.

By Bill Palmer



Concrete contractors dream about placing perfect concrete for precisely positioned columns, beams, and slabs. But sometimes things aren't quite perfect or plans change and it's necessary to demolish concrete. In many cases, a 60-pound breaker or a smaller chipping hammer are the answer, but there are alternatives that should be considered, especially when noise, dust, or vibration are important issues. Here are three techniques to consider: expansive grouts, microblasting, and hydrodemolition.

Expansive grouts

Drill a line of holes, pour in some grout, wait a few hours, and the concrete or rock cracks exactly where it was supposed to crack. Sounds too easy to be true, but it is almost that simple. Expansive grouts have improved in recent years and deserve a place in every concrete contractor's bag of tricks. Three reliable expansive grouts are Bustar, Dexpan, and Ecobust.

To use this material requires drilling a series of 1 1/2-inch-diameter holes to 80% of the concrete thickness. The holes should be located about 8 inches apart in reinforced concrete. The holes are cleaned with compressed air then the slurry is mixed and poured into the holes. Within two to eight hours, depending on temperature and relative humidity, the grout will create up to 20,000 psi of expansive force and expand up to four times in volume.

"Demolition jobs don't have to be filled with noise, fumes, and dust," says Ecobust's president David McNamara. Expansive grout, he says, is ideal in places where heavy equipment or blasting would not be allowed. And without the concussive effects of mechanical demolition, the adjacent concrete is not cracked and rebar can be exposed without damage.

"It saves a lot of back strain for workers," says Richard Azevedo, sales manager with Dexpan. "In places where vibration or noise is an issue, this material is very effective."

The material comes in various formulations related to the temperature at which it will be used. "Our hottest mix is used from 23°F to 50°F," says Azevedo, "but it can be used in even colder conditions, it will just take longer." At higher temperatures—especially if the concrete is in the sun—the greater danger is that the material will set too fast and blow out of the holes. In these conditions, the best approach is to cover the holes with a tarp or damp straw.

Drilling the correct hole pattern is essential to getting the desired effect. Holes are drilled no farther than 12 inches apart. Some holes may be drilled and left empty to allow needed free space for the expansion to occur. Empty holes also are used to stop a crack at the end of a pattern.

Although this may be a fairly safe demolition technique, there are still some safety issues to consider. The material itself is not toxic but is highly alkaline, like portland cement, so skin and eye protection is necessary. Never look into the holes after they are filled, because blowouts of the material can occur, usually in hot weather.

Dexpan costs under $100 for a 44-pound bag that will fill 35 lineal feet of 1 1/2-inch holes

Micro-blasting

Breaking concrete from the outside requires overcoming its compressive strength. If, however, it can be broken from within, it's only necessary to overcome the tensile strength which is about 15% of the compressive

strength. Dynamite is an option for imploding a building, but according to the National Demolition Association, implosions account for only about 1% of demolition work and dynamite is difficult to control and often is not an option.

The Ezebreak Micro-Blaster System uses the same concept as dynamite but in a smaller, more controlled manner. Two small cartridges of smokeless powder are placed into a 5/16-inch diameter by 10-inch-deep hole that has been cleaned out with air to remove all dust that could interfere with the firing pin. A firing mechanism is placed in the hole and tubes are laid out to 25 feet away. The charge is initiated using compressed air or a CO2 cartridge.

The blast is large enough to break thick concrete but results in little flying debris, which can be controlled by placing carpet over the blast area. "The head and firing pins are very tough tool steel," says Ezebreak owner and inventor Carroll Bassett. "With 1000 systems in use, we've never replaced a head." The only thing that seems to wear, according to Bassett, is the air hoses.

One recent project where a Micro-Blaster was used was in a library wall that had previously been a bank. The problem, to cut a doorway through the 20-inch-thick bank vault wall, was solved with a three-head system. "Before the contractor approached us for advice on the project, he had determined that the cost of the project including wire sawing and removal of the large chunk of concrete would be $10,000 and require the library to close for two weeks," says Bassett. "Instead we used the Micro-Blaster System, chipping hammers, and a concrete saw to cut a kerf around the perimeter of the opening to limit the extent of cracking. Working time including cleanup was four days and the cost to the library was half of the original estimate. A further benefit was that the library, although a bit noisier than usual, remained open during work, making our librarian very happy."

The Micro-Blaster is simple enough that a blasting license is not needed. Training is accomplished in a couple of hours. Safety would seem to be an important issue, but Bassett says that with 600,000 cartridges sold there has been only one minor safety incident. The only way to trigger the blast is remotely using the compressed air or CO2.
Watch the Micro-Blaster in action at www.micro-blaster.com. The simplest Micro-Blaster costs $600 up to the three-head system at $1800. Cartridges are $2 apiece and a simple break might consume six cartridges.

Hydrodemolition
Cutting concrete with water seems unlikely and yet it has proven to be very effective, especially for surface preparation and scarification. Hydrodemolition is done with various devices, from handheld guns to robotic equipment. The water is directed at the concrete at 20,000 psi and 10 to 15 gallons per minute (for handheld guns). It can cut clean lines or remove the surface as deeply as desired.

Because there is no vibration or impact, the surrounding concrete is not prone to bruising (microcracking) as it is with surface preparation using mechanical devices. The surface ends up looking like rough exposed aggregate, ready for new concrete and capable of achieving high bond strength. Rebar is not damaged or cut (at these pressures) and any corrosion on the bars is removed.

Taking advantage of what Rampart Hydro Services calls "coincidental and beneficial removal," loose or slightly damaged concrete near the removal area that might well be missed by mechanical demolition also is removed by the high pressure water. Any loose or delaminated concrete is automatically reduced to small 1/2-inch pieces. Where hidden delamination existed, the hydrodemolition will cut deeper with no "collateral damage" to adjacent sound concrete.

An important issue with hydrodemolition is water. "Hydrodemolition is not recommended in remote locations with no water source," says Richard Scruggs, product manager with Jetstream, a hydrodemolition equipment manufacturer. In those cases, water would need to be trucked into the site—which is possible but will add cost. Handheld guns may use as little as 10 gallons per minute (gpm) while larger machines can use as much as 60 gpm. Concrete is removed with water only—no abrasives are added.

Disposing of the water is also an important issue. "The environmental regulations on the slurry are all over the place," says Scruggs. "Some regions don't regulate the slurry at all while some require complete segregation and conditioning of the water." Check with local environmental officials when considering hydrodemolition to determine how to handle the slurry.

Training to safely and effectively use hydrodemolition equipment usually is provided by the manufacturer. Jetstream provides a one-day class for simple work or a three-day blaster training course for more sophisticated equipment. "Training provides a good foundation," says Scruggs, "but it takes experience to know how to balance the pressures and flow rates." The robotics systems actually are simpler to operate because the machine removes a lot of the guess work. Prices for hydrodemolition systems can range from as low priced as $2000 for the "shotgun" systems up to $300,000 for the full robotic devices.

Safety First

Demolition work by any method raises safety risks. Although expansive grouts, microblasting, and hydrodemolition are reasonably safe techniques, each has their own dangers and often are accompanied by drilling, sawcuts, and chipping. Every contractor needs to have a demolition section in their safety program. A couple of good resources for this are the National Demolition Association (NDA) and the Concrete Sawing & Drilling Association (CSDA).

The NDA, for example, has a series of safety talks including number XLVII on prestressed and post-tensioned concrete. This short primer has some great advice on the need to recognize post-tensioned structures, because there is a significant amount of energy stored in the cables that must not be released without warning. Not only can tendons turn into missiles but a sudden release can lead to progressive collapse of a structure. "Demolition of these types of members requires specific knowledge of the types of tendons and the exact placement of the tendons," advises the safety talk. For more, visit the NDA at www.demolitionassociation.com.

The CSDA also has an extensive safety manual and a series of tool box talks on safety issues related to cutting and drilling. Here, for example, is an abbreviated version of CSDA's safety rules for chain saws:

1. Operators must read and understand the manufacturer's operating manual and safety requirements. Always wear personal protective equipment, including, but not limited to, hard hat, hearing protection, safety glasses, and safety footwear.
2. NEVER operate a diamond chain saw with the side cover missing or broken.
3. NEVER insert a diamond chain into a slot that is narrower than the chain segments, as rapid pushback might occur.
4. NEVER install or run the chain backward. The bumpers should lead the segments into the cut. The chain should flow away from the operator on the top of the bar and return to the operator on the bottom of the bar.
5. NEVER run a diamond chain saw upside down. Concrete debris can fly back into the operator's face.
6. Be aware of what is on the backside of a cut.
7. Always turn the saw off before performing any maintenance.

8. Always maintain secure footing when operating a diamond chain saw. Housekeeping in the work area is important for operator safety.
9. Operators should always use both hands on the saw and keep their arms close to their body.

Strengthening by Addition of Counterforts

This is a very efficient and cost-effective method due to its simplicity. Counterforts can be placed in front or behind the stems act as rigid piers to provide flexural capacity, reduce deformation and/or increase the safety factors for overturning and sliding. If placement of the counterforts on the retained is cost prohibitive, due to the required excavation, they can be placed in front of the wall (when adequate space is available) and modifications can be made to the toe for distributing the applied pressures. The design of the counterfort itself can be done by utilizing truss analogy of the internal forces or a strut and tie model. As an alternate, kickers may be utilized to provide support at certain intervals in lieu of counterforts. While kickers are a popular method for temporarily supporting retaining walls, they are not commonly used for permanent repairs.

Companies mentioned in this article:

Archer USA (Dexpan)
Sunland Park, NM
www.archerusa.com
866-272-4378

Demolition Technologies Inc. (Bustar)
Greenville, AL
www.demolitiontechnolgies.com
800-282-4384

Ecobust
Vancouver, British Columbia, Canada
www.ecobust.com
888-509-2420

Ezebreak (Micro-Blaster)
Frankford, WV
www.ezebreak.com
304-497-4311

Jetstream, Div. of Federal Signal Corp.
Houston, TX
www.waterblast.com
800-231-8192

Rampart Hydro Services
Coraopolis, Pa.
www.rampart-hydro.com
412-262-4511

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ICRI BALTIMORE WASHINGTON 2nd QUARTER DINNER MEETING

Featuring Dr. Farshad Rajabipour from Penn State University

by Brian Radigan | Tremco

Members of the Baltimore-Washington ICRI Chapter attended the 2019 1st Quarter Dinner on May 9th. Our first meeting this year was hosted at the Gaithersburg Marriott Washingtonian Center in Gaithersburg, MD. A very special thanks to Brian Baker (PPSI) and the Facilities Committee for setting up the event at one of the chapter's mainstay locations. The incoming crowd enjoyed an intimate but fun social hour. Conversation between old friends and new continued into the main dining hall. A delightful spread was provided through a buffet dinner prior to the start of the night's technical seminar.

Current Chapter Presidents, Kevin Kline (ICRI) provided a recap of recent events plus upcoming events. Mr. Kline requested a call for technical articles for inclusion into the Aggregate. A reminder was also given that student scholarship applications were again available for 2019 and the deadline to apply was September.

Kevin then introduced the night's speaker Dr. Farshad Rajabipour from Penn State. Dr. Rajabipour earned a B.Sc. degree from Sharif University of Technology and M.Sc. and Ph.D. degrees from Purdue University, all in Civil Engineering. He has 18 years of teaching and research experience in support of sustainable civil infrastructures that are safe, durable, reliable, cost effective, and environmentally positive. Specifically, he performs research on concrete durability and life extension, unconventional pozzolans, alternative and recycled cements, bridge preservation and asset management, and automated construction using additive manufacturing. He is a fellow of the American Concrete Institute (ACI) and an Associate Editor of the American Society of Civil Engineers (ASCE) Journal of Materials. He is the recipient of the National Science Foundation's CAREER award, ACI Wason Medal, and the Bryant Mather Award from the Transportation Research Board. At Penn State, and in addition to his faculty position, he is the Associate Director for USDOT's Center for Integrated Asset Management of Multi-modal Transportation Infrastructure Systems (CIAMTIS).

In this presentation, Dr. Rajabipour presented on "The state of the art in understanding, testing, predicting, and mitigating the alkali-silica reaction (ASR) damage in concrete." Alkali-silica reaction (ASR) continues to be a major durability problem of concrete, resulting in expansion, cracking, and loss of serviceability in bridges, pavements, dams, and other civil infrastructure. This presentation discussed and delved into several topics on the subject, such as the current state of knowledge on deterioration causes, damage mitigation means, and the prediction of service-life performance for new and existing concrete structures susceptible to ASR. The seminar was very informative and well received by those in attendance.

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ICRI BW Chapter Scholarship & Awards Programs

APPLICATIONS ACCEPTED UNTIL SEPTEMBER 27TH

Each year, the chapter offers both an academic and industry scholarship to qualified individuals. Criteria and eligibility rules and applications can be found on our web site under the heading ***SCHOLARSHIPS AND AWARDS.***

CONTINUING EDUCATION SCHOLARSHIP PROGRAM GUIDELINES AND APPLICATION 2019 (ACADEMIC)
Each scholarship granted under this program may be up to $1,000.00, plus a one year individual membership in the National ICRI and the Baltimore Washington Chapter of ICRI. The award shall be for one year. Applicants may reapply for subsequent years. The Scholarship Award may be used towards an accredited institution of higher learning, professional certification program or a continuing educational program. The winner will have to submit an accountability of the Scholarship Award.

CONTINUING EDUCATION SCHOLARSHIP PROGRAM GUIDELINES AND APPLICATION 2019 (INDUSTRY)
Each scholarship granted under this program may be up to $1,000.00. The award shall be for one year. Applicants may reapply for subsequent years. The Scholarship Award may be used towards an accredited institution of higher learning, professional certification program or a continuing educational program. The winner will have to submit an accountability of the Scholarship Award.

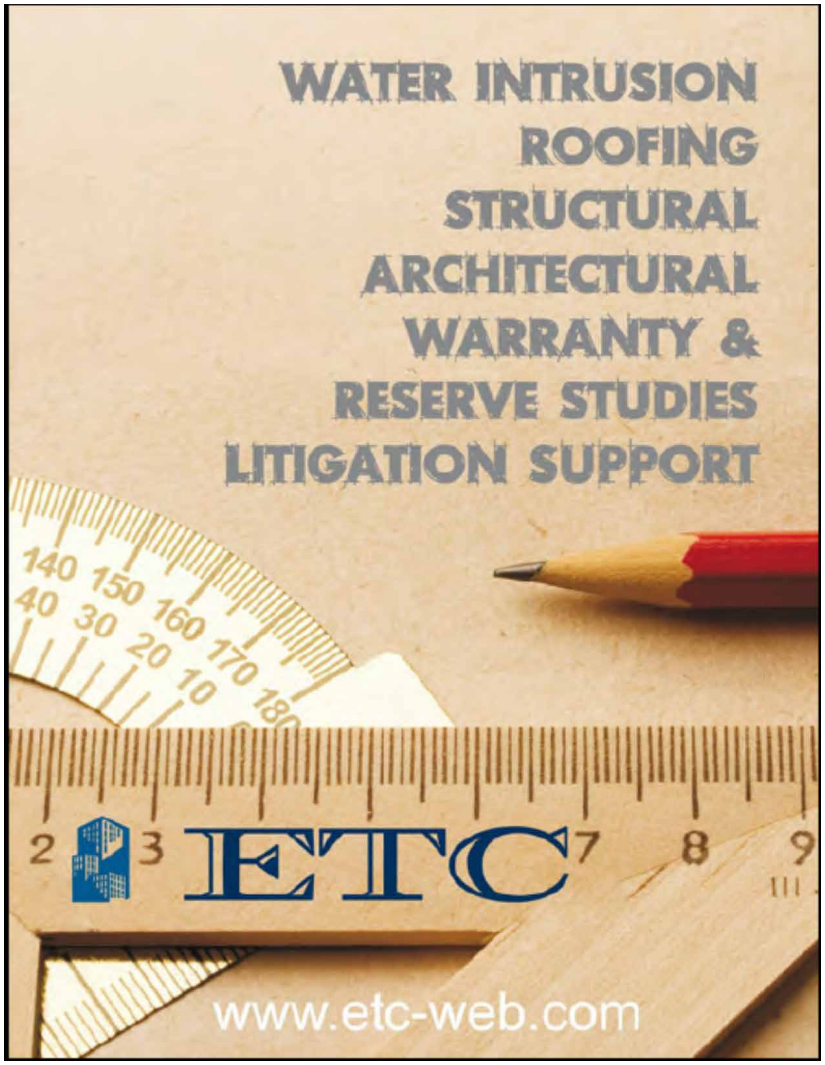
Questions: Kevin Goudarzi, P.E.: kgoudarzi@kgsconstruction.com or call at (703) 853-0092

OUTSTANDING REPAIR PROJECT AWARD

SUBMISSION DEADLINE IS SEPTEMBER 20, 2019

Each year, the BW Chapter of ICRI presents awards for recognition for exceptional and innovative repair projects in the Baltimore/Washington, D.C. area. To be eligible, repair and/or restoration must be the major aspect for the overall project. This is defined by at least 25% of the project costs being associated with the repairs and/or restoration scope of work. The repair and/or restoration portion of the project must be performed, designed and/or supplied by an ICRI Baltimore-Washington Chapter member, in good standing and the project submitted for consideration must be completed between June 1st the year prior to the Award (2018) and by May 31st of the year of the Award (2019). A single phase of a long term project may be submitted provided it meets the above completion timeline. Maximum of one (1) award per individual ICRI Baltimore-Washington member or member-company with multiple submittals.

CLICK FOR DETAILS AND APPLICATION



ICRI Baltimore Washington Chapter 2019 Annual Golf Tournament

Thursday, October 3rd, 2019

SCHEDULE:

7:30 am Registration
8:30 am Shotgun Start
1:30 pm Lunch & Awards

REGISTRATION:

Single Golfer: $185
Foursome: $700

The Timbers at Troy
6100 Marshalee Drive
Elkridge, MD 21075
www.timbersgolf.com

****REGISTRATION DEADLINE IS SEPTEMBER 20 , 2019****

Player Name Company

Contact Information for yourself or your team:

Name Phone Email

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- ☐ **$500 Breakfast Sponsor** (Includes sign at breakfast table)
- ☐ **$500 Range Ball Sponsor** (Includes sign at range)
- ☐ **$400 Competition Sponsor** (Includes sign at hole. 4 available competitions: Men's/Women's Longest Drive, Men's/Women's Closest to Pin)
- ☐ **$200 Hole Sponsor**

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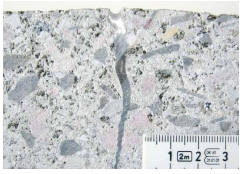

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