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The Sidney Robin Memorial Newsletter of the Philadelphia Section ASCE

Our 108th Year

January 2021

# SECTION MEETING SCHEDULE 2020-21

Vol. 93-5

Planning and scheduling topics and speakers for our Section Meeting program for the upcoming season continues. It appears that virtual meetings will continue to be offered for the foreseeable future given the restrictions still in place, but we will provide updates on this as they occur. As you may have seen and experienced, the virtual format has worked well and these have been well-received. We thank those of you who have participated in them for your flexibility on this, as it has allowed us to have a meaningful program despite the restrictions. We intend to move forward with our usual full complement of both Section meetings and Technical Groups.

We do know that the main drawback of virtual meetings is the inability to interact and network as we would all do at in-person meetings. On the "plus" side, it has allowed many of us to more easily schedule to attend meetings as no travel is needed and many of us have done this sitting at our desks or our dining room tables. Also, we are recording the meetings when we are able and the presenters are in agreement, thus one can view them at a later date as well.

The information we have at this point is provided below for your planning purposes. We would suggest that you use this to mark your calendar at this time and hold the dates.

In coming issues of *THE NEWS*, this information will be "fine-tuned" to provide updates as they are available. We also suggest you visit the Section website for the latest changes in our meeting program. As we have done, each month's edition of *THE NEWS* will feature detailed information on that month's meeting along with as much information as is available for the following month's meeting, and the "look-ahead" schedule will show details that are available at that time for your advance awareness. E-mail blasts will be sent out on a regular basis to advise and remind of upcoming events and registration deadlines.

We also note the advantage of joint meetings with other societies and will schedule these as we can.

March 11 - Maggiano's, Center City

April – to be determined

May 13 – Spring Social, Tendenza

## **JANUARY JOINT DINNER MEETING**

Delaware Valley Section, American Society of Highway Engineers (ASHE)

## **WEDNESDAY, JANUARY 20, 2021**

Virtual — 12:00 Noon to 1:00 PM

SUBJECT: SEPTA Media/Elwyn Regional Rail Extension to Wawa

SPEAKER: Brian Neckerman, Project Manager, Walsh Group

PLEASE NOTE — RESERVATIONS MUST BE MADE THROUGH DELAWARE VALLEY SECTION, ASHE. The Philadelphia Section will NOT be accepting any reservations for this meeting. Reservations can be made electronically through the ASHE Delaware Valley Section website, www.delvalleyashe.pro. The notice for this meeting and instructions on the RSVP process will be made available in early January through our e-mail blasts.

The cost of the meeting will be \$20 for ASHE and ASCE members and government agency employees and \$40 for non-members. The proceeds will be directed to the ASHE Delaware Valley Student Scholarship Fund.

The Southeastern Pennsylvania Transportation Authority (SEPTA) plans to restore service on a segment of its current Media/Elwyn Regional Rail Line that existed until 1986. Before that time, rail service continued to West Chester, and it was cut back to the present terminus at Elwyn. The "new" segment of the line will be upgraded and continue to a new station/terminus at US Route 1 in Middletown Township. This project has been commonly known as the Wawa Extension, and is the first such expansion of Regional Rail service in over 30 years.

An early action phase to stabilize embankments on sections of this line was completed in 2010. The next component of this 3-mile effort is underway and it involves significant infrastructure renewal, including retaining walls and the rehabilitation or replacement of bridges and culverts, track, catenary and structures, and signals. The last component of this project is the construction of a new station, a 600-car parking deck, and an intermodal connection. Construction of the \$178 million project began in spring 2018 and is scheduled to be complete in late 2021.

## **FEBRUARY SECTION MEETING**

Details are still being finalized for our February Section Meeting at this time. More information will be provided in upcoming e-blasts and in the February issue of *THE NEWS*.

#### **ASCE VISION**

Civil Engineers are global leaders building a better quality of life.

#### **ASCE MISSION**

Provide essential value to our members and partners, advance Civil Engineering, and serve the public good.





#### PRESIDENT'S MESSAGE

I write this message in the midst of the holiday season and am left wondering where this year has gone! I, like many of you, am looking forward to closing out the challenging year of 2020 and starting renewed and fresh in 2021. However, I do find myself reflecting over this past year and want to a moment to share the accomplishments of ASCE Philadelphia Section:

 Held over 20 PDH worthy technical events, via in-person and virtual platforms, which were organized and hosted by the Section Board, Younger Member

Forum (YMF), Technical Groups/Institutions, and partner organizations

- · Held our first Virtual Welcome Back Social and Awards Ceremony
- Developed and implemented our Virtual Webinar Library to provide PDHs via the Section's recorded virtual events
- Transitioned the Transportation & Development Tech Group to the Transportation & Development Institute (TD&I) Philadelphia Chapter through the institute approval process
- Communicated to our valued members through over 2 dozen email blasts, 10 newsletters, website
  updates, and countless social media blasts.
- Virtually met with government officials to discuss issues pertaining and included in the 2018 PA Report Card
- Section and Tech Groups awarded over \$10,000 in scholarships
- YMF continued their positive impact on K-12 students with various outreach activities, including CivE Club participation
- Served the community through Wissahickon Trail cleanup and Adopt-A-Highway programs
- Completed the ASCE Mural

As you have heard me state over the past few months, these accomplishments have only transpired with the support of our members and tireless efforts of our volunteers. I cannot thank you all enough!

Looking ahead, we are planning on the following in 2021:

- Unveil the ASCE Mural
- Participate in the first virtual Delaware Valley Engineers Week (DVEW)
- · Expand our Diversity & Inclusion focused programs
- Provide additional technical and outreach programming
- Continue communication with local government officials through grassroots efforts

I hope everyone has had a joyous holiday season and wish everyone a happy and healthy New Year!

Best, Jen Reigle, PE President, ASCE Philadelphia Section jreigle@pennoni.com | 215-254-7723

#### **MEMBERS IN THE NEWS**

## SECTION MEMBERS RECOGNIZED BY GVFTMA

The Greater Valley Forge Transportation Management Association (GVFTMA) recently honored this year's Top Transportation Demand Management (TDM) Professionals Under 40 in (what else?) a virtual ceremony. Included in this group were Section Members **Daniel Bhaumik** (Carroll Engineering), **Kiera Crenny** (KMJ Consulting), **John Doyle** (TPD) and **Kyle Kessler** (McMahon). We congratulate these folks on this honor. (If we missed anyone, please feel free to let us know.)

#### WRIGHT GETS THE SPOTLIGHT

The Philadelphia Chapter of the Women's Transportation Seminar (WTS) has offered a Member Spotlight series which focuses on a particular Chapter member and provides a short video allowing that member to answer several questions. This effort had stopped temporarily during the recent shutdown but has picked up again. Section Past President (and your Editor) **Bob Wright** was the topic of a recent Spotlight where he offered some allegedly sage advice to younger members. We thought the Chapter knew better than to encourage him, but... This and other Spotlights can be viewed on the Chapter's website, www.wtsinternational.org/chapters/philadelphia.

#### **HOLD THESE DATES**

# **ENGINEERS WEEK EVENTS SCHEDULED**

The Engineers' Club of Philadelphia, through its Delaware Valley Engineers Week Committee, will cite Engineers Week 2021 from February 18 through February 27. We have traditionally extended our local celebration beyond that recognized by National Engineers Week to include our kickoff event.

Engineers Week in the Delaware Valley will officially begin with the Engineers Week Opening Dinner on Thursday, February 18 (two days before National E Week begins). At this event, we will introduce and formally induct the Delaware Valley Engineer of the Year and Delaware Valley Young Engineer of the Year, as well as highlight the various contributions of Engineers and Engineering students. All Engineers Week award and scholarship recipients will be cited at the Dinner.

The Young Engineers Social will be conducted on Tuesday, February 23. This is a networking and social event to cite the newly-inducted Delaware Valley Young Engineer of the Year.

Also, our **Engineer of the Year** for 2021 has been selected—our own Past President **Bill Thomsen**.

Please note this information in your calendar and plan to participate. More details on venues and pricing will be included in future updates.

Please visit the Engineers' Club website, **www.engrclub.org**, for more information and updates.

#### ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION—2020-21 SEASON

#### PRESIDENT

Jennifer Reigle, Pennoni

#### PRESIDENT ELECT

Briana Earle, Langan Engineering & Environmental Services

#### VICE PRESIDENT

Mohamed Elghawy, Traffic Planning & Design, Inc.

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#### **DIRECTORS**

Kevin Brown, Urban Engineers, 2020-22 Scott Cepietz, Michael Baker International, 2020-22 Michael DeVuono, Arcadis, 2020-21

Gregory Dunn, Michael Baker International, 2019-21 Thomas Kulesher, JMT, 2020-22

Tania O'Kane, HNTB, 2019-21

#### **PAST PRESIDENTS\***

Kazi Hassan, CDM Smith Angelo Waters, Urban Engineers, Inc Cathy Farrell, HNTB

\*In accordance with our Constitution and Bylaws, only the immediate Past President will serve on the Board, and only for a one-year term. We show the most recent three Past Presidents as has become our tradition.

#### Contact Us:

#### President—Jennifer Reigle, PE

Pennoni

1900 Market Street, Suite 300 Philadelphia, PA 19103

215-254-7723; jreigle@pennoni.com

#### Secretary—Jesse Gormley, PE

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1900 Market Street, Suite 300 Philadelphia, PA 19103 215-254-7876; jgormley@pennoni.com

#### PUBLICATIONS COMMITTEE

Editor of THE NEWS Robert Wright

Section Outreach Coordinator Jeanien Wilson

Staff Writers

Assunta Daprano, Lindsay Chateauvert **SEND COPY TO:** 

ASCE, c/o Urban Engineers, Inc. 530 Walnut Street Philadelphia, PA 19106

COPY DEADLINE FOR FEBRYARY 2021 ISSUE JANUARY 20, 2021

#### YOUNGER MEMBER FORUM NEWS

Assunta Daprano, Forum Editor
Katrina Lawrence, Forum President 2020-21
McCormick Taylor
kalawrence@mccormicktaylor.com

#### **CIVE CLUB FALL RECAP**

Over the course of the current Fall semester, YMF has been virtually hosting the Civil Engineering Club at the Chester A. Arthur Middle School in Philadelphia for the 9th consecutive year. CivE Club co-chairs Tyler Farley and Sean McCreesh along with Arthur School teacher Jeff Gerstemeier, have been leading the extracurricular club of approximately 15 middle school students. The club has been meeting virtually via Google Meet each Wednesday of the current Fall semester.

Each session involves a short presentation on a different discipline of Civil Engineering followed by a related activity with the students. Some of the topics covered this semester have included an introduction to Civil Engineering, urban planning, transportation, bridge design, sustainability, and construction. A few of the activities so far have included designing a road on **Streetmix**, constructing towers out of marshmallows and toothpicks, and creating a wind-powered car. Tyler and Sean mailed each student a small package containing materials for these activities towards the beginning of the semester allowing the students to participate hands-on. Throughout the session, the students can share and compare their designs using the video chat.

The Fall semester of the CivE Club will conclude on December 23 and the Spring semester will begin in January. For more information please contact **Tyler** 

Farley at TFarley@trafficpd.com or Sean McCreesh@Pennoni.com.

#### **#ASCEMADEME CHALLENGE RECAP**

Each year YMF hosts the **#ASCEMadeMe Challenge**. The goal of this challenge is to engage students at local universities and colleges in the Philadelphia Region in the work being done by Civil Engineers as well as the benefits and resources ASCE has to offer to student and young professional members.

ASCE Student Chapters receive a specific amount of points depending on the task they completed. Tasks were created to promote Student Chapter engagement within the Section and YMF, ASCE National and Regional Events, and ASCE Student Chapters. Example of tasks include volunteering for a K-12 outreach event, participating in the mentorship program, attending the ASCE Region 2 Assembly, and attending an event hosted by YMF.

The challenge began in September with a virtual kick-off meeting and the current standings are as follows:

Villanova: 360
 Drexel: 270
 Temple: 185
 Widener: 0
 Swarthmore: 0

For more information on the #ASCEMadeMe Challenge, please contact Paige Glassman (pglassman@trafficpd.com) or Cory Bogas (cbogas@hntb.com).

## A JOYOUS HOLIDAY SEASON TO ALL

(AND OUR ANNUAL LAYM\*...)

The Officers and Board of Directors of the Philadelphia Section extend our very best wishes to all Section Members, their families and friends for a safe, enjoyable and memorable holiday season and a prosperous and productive 2021 (and a much better year than the current one...).

We at *THE NEWS* would also like to send the same good wishes. We put our own little "spin" on this, as you may be aware, through our **Lightly Amusing Yuletide Message\*** (with the maybe-unfortunate but quite descriptive acronym of **LAYM...**). In the spirit of tis' better to give than to receive, we continue to try to give you the best we can in each edition, information you can use and otherwise, and we hope you receive it in the spirit that it is presented. But sometimes we digress and give something we hope makes you at least grin (not groan...) if not outright chuckle, and this might be "it" (or it may at least suffice until March, when, depending on inspiration, we may have our **Lightly Amusing Message from Eire (LAME)** to do the trick). And we think we all could use a chuckle or two...

We had heard that some enterprising folks might have wanted us to return to the days of a contest for this, but we made the executive decision to stay the course and do this "in house" again this year. We realize that this has proven to be not a good thing, given the nature of this staff (and we'll stop there and call our staff "creative" to fend off anything less complimentary...). Thus, for your holiday enjoyment, here is this year's LAYM and it in no way reflects the views or opinions of our Section. As usual, outrages can be registered at newseditor@asce-philly.org, and please take this in the manner it is intended in the spirit of the holiday season.

It's been a tough year, as we've lived and seen Unlike any time or year that's ever been The bad news and restrictions some think are obscene Despite this, Happy Merry Everything

The shutdown continues, forty weeks have passed At the start we thought maybe four weeks it would last Yet it continues and we're all still a little aghast Yes, it's 2020, but Happy Merry Everything

Summer vacations and plans had to be put on hold Our leaders may have misled us with what we were told We got not one but two waves, the second even more bold And we carry on, Happy Merry Everything We've had to adjust, it's been much different Things changed greatly for every lady and gent From schools and workplaces, home we were sent But here we are, Happy Merry Everything

It has taken its toll, and we realize the losses We have to go on Zoom to talk with our bosses It's led some of us to turn to hitting the sauces It's been different, but Happy Merry Everything

To look on the bright side, a vaccine is in sight Hopefully there will soon be an end to this plight But we have to be patient as it won't happen overnight Carry on, and Happy Merry Everything

We keep hearing the counts, and it's continuing for weeks We thought it stunk at first, we now know it reeks We're hoping and doing what we must to flatten the peaks Yes, it's 2020, but Happy Merry Everything

More meetings and networking are way in the past it may seem Now we must wear masks in public and see colleagues via livestream If we hear "unprecedented" one more time we might loudly scream But we'll understand – Happy Merry Everything

We've been good and done what we've been told But quarantine and lockdown are surely getting old Staying inside, we have no idea if the weather is cold So we can celebrate a little – Happy Merry Everything

Santa's behind plexiglass, no Turkey Day parade Get-togethers and social events will need to be delayed Less chance to exchange gifts both store-bought and homemade But we'll make do – Happy Merry Everything

Traditional plans will be different, with maybe some gloom Social distancing, fewer guests, at the table a little more room Since it's 2020 we can always visit and see folks on Zoom And keep the spirit – Happy Merry Everything

But we'll hope and pray that better times are comin'
Decorations are placed and that little boy keeps drummin'
Celebrations will be scaled back but carols we'll keep hummin'
And best wishes from your Section, for a year maybe less numbin'
And we'll wish each other Happy Merry Everything!

#### NOMINATIONS OPEN FOR 2021 SECTION AWARDS

As we do at this time every year, we have opened our Section's Awards Program for nominations. Our Section Awards recognize Section members and others for their contributions to the Civil Engineering profession. All awards will be presented at the Spring Social/Dinner Dance, currently scheduled for May 13 (updates on this will be provided in coming issues of *THE NEWS*).

We encourage you to submit nominations for those deserving individuals who should be recognized for their various contributions, achievements, and career milestones, appropriately.

#### **GUIDELINES/RULES**

- Nominations must be received by Friday, January 29.
   Nominations should be submitted on forms which are available from the Committee Chair.
- Individuals may be nominated for awards by a member in any grade of membership.
- Individuals may receive only one award in a single year, but may be nominated for more than one award in a single year.
- Award recipients are subject to the approval of the Section's Board of Directors.
- Awards are presented only during years in which, in the judgement of the Selection Committee or the Board, there is at least one suitable candidate.
- The Selection Committee, at its discretion, may nominate a candidate or an alternate for each award for Board consideration.
- The Selection Committee will recommend to the Board whether the recipient should also be nominated for applicable National or Regional awards by the Section.
- A nominee for an award MUST be a member in good standing of the Philadelphia Section in the year in which the nomination is made, with three exceptions — for Educator of the Year, Government Service Award, and Philadelphia History and Heritage Award need not be members of ASCE and/or the Philadelphia Section.

#### **AWARDS**

The Section has a total of 14 awards which cover various specialty areas. In addition, the Section President can nominate an individual for the Presidential Award at his/her discretion. The awards are as follows:

- · Philadelphia Civil Engineer of the Year
- Philadelphia Young Civil Engineer of the Year
- Philadelphia Government Engineer of the Year
- Philadelphia Young Government Engineer of the Year
- · Government Service Award
- · Educator of the Year
- · Philadelphia History and Heritage Award
- · Community Outreach and Service Award

#### Individual Technical Awards:

- Civil Engineering Manager of the Year
- Construction Engineer of the Year
- · Geotechnical Engineer of the Year
- · Structural Engineer of the Year
- · Transportation Engineer of the Year
- Water Resources Engineer of the Year

If you are interested in submitting a nomination for consideration, please contact **Bob Wright**, Committee Chair, at **215-433-1666**, or via e-mail at **newseditor@asce-philly.org**, to obtain a nomination form. You may also call Bob, if you have any questions or need any additional information on the Section's Awards Program.

#### **FUTURE CITY - HELP NEEDED**

As it has done for a number of years, the Future City Philadelphia program is conducting its annual competition and will hold the regional finals on January 30, albeit virtually this time around. Mentors and various volunteers for the competition, including judges, evaluators and Zoom hosts, are needed. Please visit www.futurecityphilly.org for more information and details on this.

A total of 41 local schools will be competing this time around and our Section's Younger Member Forum will be among those offering a Special Award.

#### **SECTION COMMITTEES**

Our Section runs very well and it is mainly a result of the dedication and service of our many volunteers, both our Officers and Board Members as well as our various Committees. While many of you know the former group well, you may not be all that aware of the latter. Our Committees address many of our regular and ongoing issues and keep our Section vibrant and in the forefront of service to our membership. A list of our Committees and chairs for this season is provided below. We would like to thank all of these folks for their contributions and diligence in helping our Section do what it does.

Additionally, if you have a particular interest in helping the Section as a Committee volunteer, please reach out to us at **info@asce-philly.org** or through our Section Secretary, **Jesse Gormley** (contact information is provided on page 2).

Audit - Mohamed Elghawy

Awards - Bob Wright

**Engineers Week Hall of Fame Recognition** – Ruben David

**Budget and Finance** – Joe Natale

Civil Engineers in Government – Jeanien Wilson

College Scholarship - Scott Cepietz

**Communications** – Jesse Gormley

E-mail Outreach - Jeanien Wilson

Webmaster - Greg Dunn

Facebook - Joe Natale, Michael DeVuono

Newsletter - Bob Wright

Sponsorship - Bob Wright

Continuing Education – Mohamed Elghawy

Humphrey Fund – John Zarsky

Membership - Andrew Bechtel

Mural – Angelo Waters

Nominating (for Board Positions) - Jen Reigle

Program - Briana Earle

Venue Coordination - Troy Illig

Check-in/Name Tags – Nha Truong

Society Relations – Cathy Farrell

Region 2 Director – Jack Raudenbush

Region 2 Governors – Greg Kuklinski, Carol Martsolf, Joe Platt, Pat Sullivan

**Region 2 Younger Member Representative** – Joe Natale

PA Council – Cathy Farrell, Bob Wright

Legislative Affairs - Spencer Finch

Spring Social – Troy Illig

**Subsidiary Groups** – Mohamed Elghawy

Construction Management - Bob Wright

**Delaware Valley GeoInstitute** – Russ Preuss

 ${\bf Environmental\ and\ Water\ Resources}-{\bf Eric\ Lindhult}$ 

**Structural Engineering Institute** – James Deeney

**Transportation & Urban Development** – Bill Thomsen

Younger Member Forum – Katrina Lawrence

#### THANKS TO OUR SPONSORS

As we approach the midpoint of the season, we note that there are 13 firms participating in our Section sponsorship program. We extend our special and collective THANKS to each sponsor for their financial commitment and support.

Sponsor's business cards are printed in each edition of *THE NEWS*. Their logos are displayed in a special Sponsors section of our website, where we provide direct links to their own sites so prospective employees can review all available and up-to-date positions. We also offer sponsors the opportunity to have a "spotlight" article in an edition of *THE NEWS*.

If you have an interest in joining our sponsorship program, please contact **Bob Wright** at **newseditor@asce-philly.org** for more details.

Virtual/Zoom

# ENGINEERS' CLUB OF PHILADELPHIA MULTI-SOCIETY MEETING

December 10, 2020

#### An Air Treatment Mitigation for COVID-19

By Robert Wright, Editor

A year to the day after the last such meeting, the Engineers' Club of Philadelphia scheduled its regular year-end Multi-Society Meeting. Last year's was a dinner, and it has varied from that and lunchtime formats over time, but in 2020 it was the "bring yer own" meal virtual version to which we've reluctantly gotten accustomed. Nearly 40 members of various technical groups participated in a topic which was not stuff the typical civil engineer would know much about but timely and interesting.

Past President of the Engineers' Club Chris Holliday opened the meeting with some procedural items and turned things over to current President (and Past Section President) Chris Menna for several announcements. Past President Holliday then introduced the event's presenters, Etienne Grignard and Bill Jordan, who "tag-teamed" the session.

Mr. Grignard, Chief Executive Officer of the Grignard Company, explained that air treatment of virus materials such as COVID is necessary as these are spread through air. When these settle onto surfaces they can be removed by disinfectant and wiping, with which we have become very familiar. Most buildings have air exchange systems and rates as dictated by code, but mass transit vehicles do not have similar air turnover methods. While the interior surfaces of these vehicles are subject to intense episodic cleaning and disinfection to combat virus spread, this needs to be coupled with air treatment measures to be fully effective. The company's Grignard Pure System technology can be utilized for this purpose, as it bonds and condenses onto the virus and permeates it to inactivate 98% of the harmful materials and particles. It is useful for nearly all interior situations.

Mr. Jordan noted that building ventilation could actually draw and redistribute virus parti-

cles from one area to another within the same space. While filtration can be increased and strengthened, this can often result in reduced air exchange capability as well as an increased carbon footprint due to the additional power needed for air exchange. Additionally, HEPA filters that can remove virus particles will need to be treated as hazardous materials when they are removed for replacement, making handling and disposal more complex. The Grignard system can fairly simply be integrated into existing building HVAC systems. He added that EPA does not regulate these technologies and there is no accepted standard for efficacy at this time, but the results have been very promising.

Mr. Grignard outlined the need for a "layering" approach as the most effective way to virus management, with hand-washing, wearing of face masks, social distancing and filtration all equally critical in attempts to control and minimize virus spread. While the coming vaccine will be an additional and important asset in this "battle", it will be a lengthy process to get people inoculated (and many may opt out of vaccination) and the prospect of future different pandemics will still be there. He noted that the focus of the Grignard system should be where the emergency and need is currently greatest, in health care facilities, nursing homes, mass transit, food processing facilities, government facilities and common areas. He provided two videos which demonstrated how the system would effectively work for this purpose.

The presentation concluded with numerous interesting and informative questions from the audience, for which Messrs. Grignard and Jordan and provided meaningful responses. Past President Holliday thanked the speakers for their insightful session.

#### **DO YOU STILL OWE YOUR DUES?**

If you haven't yet paid your ASCE dues, you're going to be late shortly! Your ASCE and Philadelphia Section dues are both due on **January 1**. As noted on the invoice, you can pay by check or electronically.

Keep in mind that your membership entitles you to be eligible for ASCE Member Advantages. These encompass benefits in several member discount programs including professional liability insurance, life insurance, credit cards and banking services, and rental car discounts. ASCE always looks to negotiate the best deal for members. Similarly, when members save through these programs, ASCE earns revenue that helps keep your dues rates as low as possible. Please

check **asce.org** for the details on these offers and programs.

There are additionally a number of free eLearning Webinars available to help you develop critical career skills, with topics covering a broad range of technical interests, leadership development tools, and key member programs. One of the most popular benefits of membership is that every year you can earn up to ten free PDHs for the eligible **ASCE On-Demand Webinar** courses you successfully complete.

Your dues are vital to the success of our Section's activities. We appreciate your ongoing support.

# **N-ASCE\***

This month – some car stuff. In case you thought you were going to get a new car for Christmas (one with one of those big ribbons on it like you see in commercials but never see in in real life...) because you opened a gift that was a new set of floor mats... This may help take care of your disappointment.

# CAR MANUFACTURERS KNOW THAT FIRST IMPRESSIONS ARE IMPORTANT, EVEN WHEN IT COMES TO SOUND

Before potential buyers ever hear a new vehicle's engine vroom or subwoofers boom, the first sound they encounter is the door slam. Car doors used to close with a satisfying thud, but modern innovations and safety regulations have changed that. From new types of steel exteriors to the addition of extra safety support bars and airbags, car doors have evolved. As a result, that thud of the door closing turned into a less-than-satisfying tinny clank.

To compensate, Engineers have been taking a crash course in "psychoacoustics" to figure out how to manipulate the acoustic design of the door structure to create the optimal psychological, cognitive, and sensory response. In other words, they're doctoring the sound of the door to manipulate our opinion of the entire vehicle.

And it works. Studies show that higher-pitched, metallic noises create the impression of lower quality, so dampeners were introduced into the door cavity to create the low-frequency "thwump" sound that people associate with high-quality craftsmanship. Even the locking mechanism is altered to make just the right "click" sound.

#### **BUMP IN THE ROAD**

They say that where others see problems, Engineers see possibilities.

That was certainly true of 53-year-old British Engineer Chris Acock when he came across a broken-down bumper car on eBay earlier this year. He was able to purchase the vehicle for only \$40 because it was in such rough shape, but what Acock saw was a fun way to cruise around town. After stripping down the bumper car until only the body remained, he began merging it with a mobility scooter to make it road ready. Once he installed front, back, and hazard warning lights, repainted the exterior, and hung a flag on the rear electrical pole, Acock's creation was complete, and it only cost him a total of \$525.

While the scooter battery only has a range of 20 miles, that's enough for Acock and his partner to zip out to local stores and restaurants. And even though Acock's creation tops out at just 8 mph, he's not concerned about driving it on city streets among other full-size vehicles. After all, it was built to withstand a solid bump.

Thanks to *Roads & Bridges* for this information. \*N-ASCE – Not always something concerning Engineering...

#### 2021 SCHOLARSHIP PROGRAM

The Section offers two distinct scholarships annually:

- · ASCE Philadelphia Section Student Scholarship
- ASCE Philadelphia Section Member Scholarship We additionally support a scholarship awarded during Delaware Valley Engineers Week.

All scholarship winners will be recognized as the Section's guests at the March 2021 dinner meeting.

#### **ASCE PHILADELPHIA SECTION STUDENT SCHOLARSHIP**

A minimum of one \$1,000 scholarship will be awarded by the Section to a civil engineering student who meets the following requirements:

- The applicant must be matriculating in a fulltime Civil Engineering or Architectural Engineering program at one of the Philadelphia Sections five Student Chapters: Drexel University, Swarthmore College, Temple University, Villanova University, or Widener University.
- The applicant must be an active ASCE Student Member.

Application Requirements:

Cover letter containing:

- The applicant's name
- The applicant's ASCE ID Number
- The applicant's institution
- Degree Level
- Address/telephone number
- Additional information for consideration (such as need, class rank, or GPA)
- Resume
- · Letter of Recommendation from faculty advisor
- Essay (limited to 1,000 words) on the following topic: How do you foresee the Civil Engineering work environment changing in the post COVID19 era? What concepts of the current work environment would you like to continue and what would you consider changing?

Submittal Deadline: Applications (including recommendations) must be submitted by February 19, 2021 to Scott Cepietz (scott.cepietz@mbakerintl.com).

#### **ASCE PHILA. SECTION MEMBER SCHOLARSHIP**

A minimum of one \$1,000 scholarship will be awarded by the Section to a civil engineering student who is the child of an active Philadelphia Section member. The requirements are the same as that of the Student Scholarship except:

All children of active Philadelphia Section members matriculated in any full-time Civil Engineering or Architectural Engineering program at an accredited college or university are eligible.

Application requirements and submittal deadline are the same as for the Student Scholarship. The applicant's cover letter should include parents name and ASCE ID number.

#### **DVEW/ASCE SCHOLARSHIP**

Our Section additionally supports the Delaware Valley Engineers Week/ASCE scholarship that is offered as part of Engineers Week celebrations. The submission due date is January 8, 2021. Please visit www.engrclub.org, in the DVEW tab, for more information and submission requirements.

We encourage all eligible students to apply. Good luck!



WAYNE -

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