

# 2021

## DELAWARE VALLEY ENGINEERS WEEK

### Opening Ceremony

Thursday  
February 18, 2021



### Program

*Engineers Week*

*February 18-27*

**Engineers – Imagining Tomorrow**

**\*\*\* PROCLAMATION \*\*\***

*The Engineers' Club of Philadelphia*

*On Behalf of*

*The Engineering Societies in the Delaware Valley*

*Is Proud to Recognize*

*William T. Thomsen, PE*

*as the*

*2021 Engineer of the Year*

*In tribute to his leadership in civil engineering in the Delaware Valley,*

*In honor of his ability as a professional and leader in delivering public transportation infrastructure projects,*

*In appreciation of his contributions to numerous professional organizations and his accomplishments with the American Society of Civil Engineers and American Public Transportation Association,*

*With sincere thanks for his efforts as an advocate of the engineering profession in the Delaware Valley.*

*It is with pride in the outstanding achievements and exceptional accomplishments of William T. Thomsen, PE, that we, with great pleasure, and on behalf of his colleagues in the Engineering Profession, set our hands and seal unto this citation on the 18th day of February, 2021.*

***Christopher J. Menna, PE***

*President,  
Engineers' Club  
Of Philadelphia*

***Mark A. Kinnee, PE***

*Engineer of the Year  
Awards Coordinator,  
Delaware Valley  
Engineers Week  
Committee*

# **Program**

Welcome

**Robert M Wright, PE**

*Chair, Delaware Valley Engineers Week Committee*

**Stephen M. Hall, PE**

*2020 Delaware Valley Engineer of the Year*

Invocation

**Ruben D. David, PE**

*Past President, Engineers' Club of Philadelphia*

Event Speech Introduction

**Christopher J. Menna, PE**

*President, Engineers' Club of Philadelphia*

Event Speaker

**Joel Spivak**

Engineers Week Program

**Robert M. Wright, PE**

*Chair, Delaware Valley Engineers Week Committee*

Awards

**AnnMarie L. Vigilante, PE**

**Briana Pampuch, PE**

*Director/Deputy Director, Awards, Delaware Valley Engineers Week Committee*

Introduction of the 2021 Young Engineer of the Year

**Alexa Egan Harper, PE**

*2018 Delaware Valley Young Engineer of the Year*

**Kevin Brown, Jr., PE**

*2021 Delaware Valley Young Engineer of the Year*

Introduction of the 2021 Engineer of the Year

**Kenneth R. Fulmer, PE**

*President, Urban Engineers, Inc.*

**William T. Thomsen, PE**

*2021 Delaware Valley Engineer of the Year*

Closing Remarks

**Christopher J. Menna, PE**

*President, Engineers' Club of Philadelphia*

**THE ENGINEERS' CLUB OF PHILADELPHIA**  
**ON BEHALF OF THE ENGINEERING SOCIETIES**  
**OF THE DELAWARE VALLEY**

is proud to recognize

**WILLIAM T. THOMSEN, PE**

as

**DELAWARE VALLEY ENGINEER OF THE YEAR**  
**2021**



**William T. Thomsen** has been elected as the 2021 Delaware Valley Engineer of the Year. Bill serves as the Senior Vice President and Chief Operating Officer of Urban Engineers, Inc., where he is responsible for the operations of all offices and services throughout the firm's national geography. He additionally is the President and Chief Executive Officer of Urban Engineers of New York, DPC. He is the Practice Leader for Urban's National Services group and is the firm's principal for overseeing "Mega Projects" program management services. He is a member of the firm's Board of Direction and the Treasurer of the corporation.

Bill began his career at Urban in 1980 working on the design of a Railroad Midday Storage Yard for the major Philadelphia rail program at the time, the Center City Commuter Connection. He moved on to the construction management team of the Connection, also known as the Commuter Tunnel, which was recognized by ASCE National as its Outstanding Engineering Achievement (1985). He has served in key roles in the growth of Urban's program management division and is a national leader in the management of large-scale projects. He has been the principal and program manager on Urban's efforts on New York City's high-profile One World Trade Center, East Side Access, and Second Avenue Subway projects. The latter two efforts are among the largest public works projects built in America. Additionally, the Second Avenue Subway, a desperately-needed transit link in New York City's Upper East Side, was the first new subway trunk line in Manhattan in over 70 years when it opened in 2017.

Bill has significant national experience with major capital improvement projects, from planning through construction. He is a recognized expert by the Federal Transit Administration and the Federal Railroad Administration, as well as by many transit authorities across the country. He is a registered Professional Engineer in Pennsylvania and three other states and has extensive experience which encompasses the management and engineering of major infrastructure projects, including tunnels, railways, electric traction power, and transportation systems.

Bill has been an active member of the Philadelphia Section of the American Society of Civil Engineers (ASCE) for many years and has served in numerous capacities as a Section officer and Board member, culminating in his term as Section President in 1994-95. He continues to lead the Section's Transportation and Urban Development Technical Group (recently recognized as part of the Transportation and Development Institute of ASCE). He was recognized as the Section's 2018 Philadelphia Civil Engineer of the Year in appreciation of his numerous efforts and contributions. He is additionally a member of the Engineers' Club of Philadelphia, the Construction Management Association of America, the Women's Transportation Seminar, the American Public Transportation Association, the American Public Works Association, and the Society of American Military Engineers.

Bill received his Bachelor of Science degree in Civil Engineering from Clarkson University in 1978 and a Masters degree in Engineering Management from Drexel University in 1985. He has been an ardent supporter and strong proponent of the engineering profession and has worked with students at all levels and recently-graduated engineers to develop and hone their interest in what engineers do and the importance of technology and the engineering profession to our everyday lives. He has also been able to pass along his wisdom to colleagues and co-workers through courses he has instructed in Urban's Technical Institute program.

When Bill is not traveling nationally for Urban, he enjoys not taking himself "too seriously" and spending time with his wife Kim, and their extended family (two daughters, two sons-in-law, one son, and grandchildren) at the beach, running family marathons and Broad Street Runs, and playing golf and pond hockey. For over four decades, he has tirelessly embraced his career choice and he intends to continue learning, leading projects, developing and mentoring new engineers, and sharing his knowledge, experience and enthusiasm as our 2021 Delaware Valley Engineer of the Year.

## DELAWARE VALLEY YOUNG ENGINEER OF THE YEAR KEVIN BROWN, JR., PE

**Kevin Brown** serves as a Transportation Construction Manager in the Construction Services group at Urban Engineers at the firm's headquarters in Center City. He has been



with Urban for twelve years, starting as a co-op student and returning as a full-time engineer following his graduation from Widener University in 2009 with his Bachelor of Science degree in Civil Engineering. He returned to Widener to obtain his Masters degree in Civil/Structural Engineering in 2014. He has been involved in and managed numerous local highway and transportation construction projects and is currently directing the \$40 million I-76 (Schuylkill Expressway) viaduct rehabilitation effort.

Kevin is an active member and supporter of several professional organizations. He serves on the Board of Directors of the Engineers' Club of Philadelphia (ECP), the Philadelphia Section of the American Society of Civil Engineers (ASCE), and the Architecture Construction Engineering (ACE) Mentoring Program, Eastern Pennsylvania. He is also a member of the American Society of Highway Engineers (ASHE), the Construction Management Association of America (CMAA), and the National Society of Black Engineers (NSBE). He has worked tirelessly on student outreach efforts and increasing the awareness of the engineering professions, particularly to economically-disadvantaged students at all levels. He has additionally worked with the Philadelphia Section ASCE's Younger Member Forum (YMF) for many years, and served as the Forum's President, to help newly-minted engineers adapt to the workplace and interact with peers in social activities and volunteer projects in the community, and is active at the National level of ASCE on its Committee on Younger Members (CYM). He also leads younger member efforts and activities at the Engineers' Club.

In recognition of his various contributions and efforts, Kevin was cited as the Young Philadelphia Civil Engineer of the Year by the Philadelphia Section ASCE in 2017. He has additionally made a significant commitment in conjunction with his firm in the establishment of the Kevin Brown Scholarship, a \$5000 award administered in conjunction with the ACE Mentoring Program locally.

Kevin feels fortunate to have a strong support network with very supportive family and friends. He is a lifelong Philadelphia resident.

## EVENT SPEAKER

### JOEL SPIVAK

Joel Spivak, a native of Philadelphia, has had a varied career in architecture and the arts. His community service is legendary and includes neighborhoods from all over the City. s Projects ranging from the South Street Renaissance in the 1970's, the opening of the Rocketships & Accessories space toy store in the 1980's, the award for Outstanding Achievement in Design for Affordable Housing HUD in the 1990's, to managing the Southwark Housing Project baseball team, creating National Hot Dog Month events, and authoring three books on transportation history in Philadelphia, show his lifetime commitment to his neighborhood and his city.

Mr. Spivak will provide insight and information on how the planned Crosstown Expressway, which would provide a high-speed highway connection across town south of Center City, to complement the Vine Street Expressway on the north side of Center City, pitted those who lived and worked in the South Street corridor, where the highway was to be built, to organize and oppose it. South Street was a collection of old-world shops that, in the 1960's, began to transform as the epicenter of the "bohemian" presence in the City as many of the first-generation shop owners and proprietors were looking to pass on the businesses to others. The Expressway would have obliterated this area in the name of urban renewal and "progress". A new wave of activists and neighborhood champions began a program of protest and political awareness to preserve the community and stop the highway. As a result the Crosstown Expressway was not built, with the exception of remnants of some connecting ramps that can be seen along I-95 in the area, and the South Street district has gained a new life and vitality.

## PAST DELAWARE VALLEY ENGINEERS OF THE YEAR

1953 Nevin E. Funk, PE*	1957 Lester M. Goldsmith, PE*
1954 Walter A. Kruger, Jr.*	1958 Kilshaw M. Irwin*
1955 Harry A. Kuljian*	1959 Samuel S. Baxter, PE *
1956 Francis S. Friel, PE*	
1960 Hilliard W. Paige*	1965 Leo Steg, PE*
1961 I. Melville Stein*	1966 Carl C. Chambers, PhD, PE*
1962 James M. Harlow, PE*	1967 Frank N. Piasecki, PE*
1963 Leroy A. Brothers, PhD*	1968 Nathan Cohn, PE*
1964 Henry M. Chance, II, PE	1969 Allen F. Clark, Jr., PE*
1970 William H. Haggerty, PhD*	1975 John L. Rumpf, PhD, PE
1971 Samuel T. Hudson, PE*	1977 John Lotz, PE*
1972 James L. Everett III, PE	1978 H. Robert Sharbaugh
1973 Louis T. Klauder, PE*	1979 Vincent S. Boyer, PE*
1974 Lewis A. Caccese, PE*	

1980 W. Spencer Bloor, PE*	1985 C. R. Pennoni, PE
1981 Robert M. Koerner, PhD, PE*	1986 John S. Kemper, PE
1982 Walter F. Spiegel, PE	1987 Richard Woodring, PhD, PE
1983 August D. Pistilli, PE*	1988 Gunnar E. Sarsten, PE
1984 Joseph Bordogna, PhD*	1989 Gerald E. Speitel, PE*
1990 E. Ross Forman, PE*	1995 Harry M. Perks, PE*
1991 Mark Z. Hanlon, PE	1996 Edward E. Gilvey, PE*
1992 Joseph V. Mullin, PhD, PE	1997 Joseph R. Synchron, PE, PLS
1993 Stephen B. Lester, PE	1998 Thomas G. McWilliams, Jr., PhD*
1994 John E. Kampmeyer, PE	1999 Lawrence M. Moy, PE
2000 Bruce A. Eisenstein, PhD, PE	2005 Donald D. Dalessandro
2001 Pasquale Dougherty, PE, PLS*	2006 Eric L. Flicker, PE
2002 Edward M. D'Alba, PE	2007 Joseph J. Viscuso, PE, PLS
2003 Robert M. Rodgers, PE	2008 Dianne Dorland, PhD, PE
2004 Matthew J. Burns, PE	2009 David S. Lowdermilk, PE
2010 Selçuk I. Güçeri, PhD	2015 Adam K. Fontecchio, PhD, PE
2011 Douglas W. Kriebel, PE	2016 Kevin L. Johnson, PE
2012 Timothy H. Haahs, PE, AIA	2017 John A. Nawn, PE
2013 Charles A. Clerecuzio, PE*	2018 Deborah L. Grubbe, PE
2014 Suzette M. Schultz	2019 John J. Peirce, Jr., PE
2020 Stephen M. Hall, PE	

*\* deceased*



Past Engineers of the Year

## PAST DELAWARE VALLEY YOUNG ENGINEERS OF THE YEAR

1990 K. Jim Jem	1995 Philip W. Wursta, PE
1990 Susan L. Best, PE	1996 Lisa M. Walton, PE
1991 William K. Grauer, PE	1997 Carol M. Reich, PE
1992 Stanley Yuen, PhD, PE	1998 Elaine Elbich, PE
1993 James M. Matthews, PhD, PE	1999 Thomas K. Cassidy
1994 Sandra J. May	1999 Lucia Chan

2000 John Zarsky, PE	2005 James P. Markham, PE
2001 Christopher John (CJ) Sabol, PE	2005 Thomas W. Brady, PE
2002 Casey A. Moore, PE	2006 David Thatcher, PE
2002 Carol C. Martsolf, PE	2007 Jeremy D. Colello, PE
2003 Christopher J. Menna, PE	2008 Rajeev K. Arora, PE
2004 Michael J. McAtee, PE	2009 Joseph A. Platt, PE

2010 Michael Witkowski, PE	2015 Brian M. Crookston, PhD, PE
2011 Angela Fante, PE	2016 Daniel Sujo
2012 Catherine G. Farrell, PE	2017 Kazi M. Hassan, PE
2013 Alan S. Levy	2018 Alexa Egan Harper, PE
2014 Philip M. Gonski, PE	2019 Eleanor F. Small, PhD

2020 Jesse T. Gormley, PE



Past Young Engineers of the Year



## HALL OF FAME INDUCTEE

### ROBERT M. KOERNER, PhD, PE

Robert M. Koerner was a world-renowned expert in geosynthetics, an award-winning instructor and teacher, a dedicated and active member of professional societies, and a true Philadelphia engineering hero.

Bob was born on December 2, 1933 in Philadelphia to immigrant parents and grew up in Lansdowne. He earned his BSCE degree from Drexel University in 1956, his combined MSCE degree from Columbia, Delaware and Drexel Universities in 1963, and his Ph.D. in Civil Engineering from Duke University in 1968. He began his career in construction but later transitioned into teaching at the Pennsylvania Military College (now Widener University) and then moved to North Carolina to pursue his Ph.D. at Duke.



Bob returned to Philadelphia in 1968 to join the Civil Engineering Department at Drexel University. His initial research was on deep foundations, acoustic emission monitoring of soil deformations, and nondestructive testing to locate below ground structures and objects. In the late 1970's he began research in the fledgling field of designing and installing fabrics and polymers in roadways and retaining walls. In 1980, he co-authored the first textbook on geosynthetics, and the "phone never stopped ringing".

With Bob's full and complete focus on geosynthetics, he became renowned in the field, in the US and internationally, and is known for over 700 publications, most notably the text "Designing with Geosynthetics," which he updated to the 6th edition in 2016. He simply never stopped writing (his final CV is 65 pages long). His publications include numerous books, book chapters, major reports, conference proceedings, papers and articles.

In 1986, Bob founded the Geosynthetic Research Institute (GRI) to support the growing industry of geosynthetic education and research. It was located at Drexel University until 1998 when he moved off-campus to its present location in suburban Folsom. GRI was tremendously successful as it was shaped by federal, state, and private research interests. A consortium of organizations was formed from the outset, and GRI became the foundation of the Geosynthetic Institute (GSI). There are currently 73 organizations involved representing the entire cross-section of the industry, including agencies, owners, consultants,

testing laboratories, resin producers, manufacturers of all types of geosynthetics, and installers.

In 1998 Bob was elected into the National Academy of Engineering. He proudly served the local, national, and international engineering community for over 50 years. He served as President of the American Society of Civil Engineers, Philadelphia Section in 1975-76 and was recognized as a Distinguished Member of ASCE.

Bob had received many accolades throughout his career, including being elected as the Delaware Valley Engineer of the Year in 1981. His final recognition, the A.J. Drexel Paul Award, was presented shortly before he left us suddenly on December 1, 2019.

For his many achievements and contributions to the engineering profession, we are proud to induct Robert M. Koerner as a member of the Delaware Valley Engineering Hall of Fame.

# DELAWARE VALLEY ENGINEERING HALL OF FAME

**Carl A. Baumert, Jr., PE**

*Renowned structural engineer*

**Samuel S. Baxter**

*Municipal engineer extraordinaire*

**Benjamin Franklin Bridge**

*Permitting efficient travel across the Delaware River*

**Joseph Bordogna, PhD**

*International authority on science and engineering education and research*

**Center City [Philadelphia] Commuter Tunnel**

*Connecting Suburban Station and Market East Station*

**City Plan of Philadelphia**

*Conceived by William Penn in 17<sup>th</sup> Century, model for city planning and development throughout colonial North America*

**Discovery of Electricity**

*By Benjamin Franklin*

**ENIAC**

*The first electronic digital computer*

**Fairmount Waterworks**

*At one time the most advanced municipal system in the world and initial portion of Fairmount Park*

**Frankford Avenue (The King's Road) Bridge, City of Philadelphia**

*Critical connection for colonial America, stone-arch bridge built in 1697 and still in continuous use*

**Golden Age Engineers of GE Aerospace and Lockheed Martin**

*Innovators of re-entry vehicles, spacecraft and related products beginning in 1956*

**Robert M. Koerner, PhD, PE\***

*Internationally recognized expert in geosynthetics*

**Ralph Modjeski**

*Civil engineering pioneer*

**C. R. "Chuck" Pennoni, PE**

*Exemplary civil engineer and businessman*

**Pennsylvania Railroad**

*At one time the "Standard Railroad of the World" and one of the largest*

**Philadelphia City Hall**

*The nation's largest municipal building and the largest and tallest Masonry Building in the world*

**Frank Piasecki**

*Pioneer of the United States' helicopter industry*

**Hilliard W. Page**

*Aerospace pioneer*

**Constantine Papadakis, PhD, PE**

*Engineer and educator*

**PSFS Building**

*Landmark in modern high-rise air conditioning*

**RCA Victor, Camden**

*For the development of Victrola Recordings*

**Reading Terminal Train Shed**

*Last surviving single-span arched train shed in the United States, repurposed for use as part of the Pennsylvania Convention Center*

**Removal of the "Chinese Wall"**

*Elevated rail line between 30th Street and Suburban Stations; divided Philadelphia at Market Street*

**Schuylkill Expressway**

*The first limited access roadway in the area, predating the Interstate Highway System*

**Leo Steg, PhD, PE**

*Innovator in re-entry systems and director of GE's Space Systems Laboratory*

**J. Edgar Thomson**

*First chief engineer of the Pennsylvania Railroad*

**Vukan R. Vuchic, PhD**

*Internationally-recognized authority in transportation engineering*

**Walnut Lane Memorial Bridge**

*Bridge over Lincoln Drive, first precast, prestressed concrete girder bridge in the United States*

**Roy F. Weston, PhD (Hon), PE, DEE**

*Renowned environmental engineer*

\*2021 Inductee

## OUTSTANDING SERVICE TO ENGINEERING AWARD

### FRANK E. FALCONE, AP, PE, D.WRE

The Delaware Valley Engineers Week Committee of the Engineers' Club of Philadelphia is proud to recognize Frank Falcone for his Outstanding Service to Engineering.



Frank is the Director of Professional Development and Experiential Education in the College of Engineering at Villanova University. This position was established in 2016 to develop and manage the University's Professional Development Program, entitled Career Compass. This mandatory program is designed to provide a wide range of non-technical skills for all engineering undergraduates. The focus is on leadership, management, ethical behavior, team/group dynamics, effective communications, networking, scheduling, budgeting, and related tasks and activities, with the intended result of having students receiving their degrees and being prepared for the ever-changing workforce.

For the past 46 years Frank has served as a Professor in the College of Engineering's Department of Civil and Environmental Engineering, where he has ably instructed and mentored students at the undergraduate and graduate levels. His technical fields of expertise include Fluid Mechanics, Hydraulics, Statics/Dynamics, Hydrology, Water Resources, Water Resources Master Planning, Dams, Reservoirs, River Diversion Systems, Storm Water Management, and Federal Facilities Evaluations & Inspection Services.

Frank received his Bachelors degree from Villanova in 1970 and returned for his Masters degree three years later. He served as the Faculty Advisor for the American Society of Civil Engineers (ASCE) Villanova Student Chapter for many years. He has been recognized with various awards for his teaching and consulting efforts throughout his career. These honors include the 1991 Meritorious Service Award and the 1999 Farrell Award from the College of Engineering, as well as recognition as the Educator of the Year in 2017 by the Philadelphia Section ASCE. He serves on the Selection Committees for the prestigious Villanova University Praxis Award for Ethics. He is the Chairman of the John McKee Scholarship Committee which provides college scholarships for fatherless boys throughout the Delaware

Valley and is also a Founding Diplomat in the American Academy of Water Resources Engineers.

Frank is a retired Captain, Civil Engineer Corps, United States NAVY. He has received numerous medals and awards from the US Department of Defense including the Meritorious Service Award, 2 NAVY Commendation Medals, the NAVY Achievement Medal and the Viet Nam Era Service Medals. He has held 4 NAVY Civil Engineer Corps command positions. In 2004, he was selected to receive a William C. Foster Fellowship at the US Department of State; the only such appointment to be awarded to a Villanova faculty member

In addition to his teaching experience, Frank has also provided consulting services and expert testimony in his technical fields of expertise. He has recently been providing part time consulting services, on an as-needed basis, in these technical fields for Mott MacDonald, an international engineering design, consulting and construction management firm.

Frank and his wife Linda have two daughters and three grandchildren. He is a member of the Knights of Columbus in Our Lady of Fatima Council in Mount Laurel, NJ and enjoys sailing and singing.

## OUTSTANDING SERVICE AWARDS PAST RECIPIENTS

2003	Richard A. Mulford, PE*	OSA, Engineering
2004	James W. McPhillips, PE*	OSA, Engineering
2006	Walter R. Garrison, PE	OSA, Community
2006	Moustafa A. Gouda, PE	OSA, Engineering
2008	Michael J. Gabor, PE	OSA, Engineering
2008	Peter P. Quinn*	OSA, Community
2013	Michael P. Venuto, PE, PLS	OSA, Community
2014	Ruben D. David, PE	OSA, Community
2015	Barbara C. Faust	OSA, Engineering
2015	Peter M. Silverberg, PE	OSA, Community
2016	Richard S. Prentice	OSA, Engineering
2019	Leo Leonetti, PE	OSA, Engineering
2020	Herman W. Lloyd	OSA, Engineering

\* deceased

## STUDENT AND TEACHER AWARDS

### Future City Competition Award

ST. HILARY OF POITIERS SCHOOL  
Rydal, PA

### Outstanding High School Student Award

HYUNJIN "CHRISTINA" LEE, Conestoga  
High School

### Delaware Valley Engineers Week

#### Undergraduate Scholarships

WILLOW NESKE, Temple University  
EMILY SIMKOVICH, Drexel University

### Delaware Valley Engineers Week/ASCE Undergraduate Scholarship

Sponsored by American Society of Civil  
Engineers, Philadelphia Section  
NATALIA DZIETCZYK, Drexel University

### Lewis A. Caccese Scholarship

NICHOLAS FLORIO, Villanova University

### Walter G. Neal, Jr. Memorial Scholarship

PAIGE LANING, Old Dominion University

### Undergraduate Student Paper Awards

ZHAUNG ZHUO, DAVID SPELL,  
MITCHELL MYERS, LAUREN BLAZE,  
AMANDA GROSCHADL, JOSEPH  
GOODBERLET and JIWON YANG,  
Rowan University

*3D Characterization of Desiccation  
Cracking in Clayey Soils Using a  
Structured Light Scanner*

RYAN ENO, FYNT TULLER, MARYBETH  
SANFORD and RUI LIU, Rowan University  
*Investigating Electrical Resistivity of  
Clayey Soils Under Freeze-Thaw Cycles*

ANDREA BIERNBAUM, KATHERINE  
BROSKY, CAILYN HALL AND ZAYNE  
ZALICH, University of Pittsburgh  
*Comprehensive Design of a Small-Scale  
Styrene Manufacturing Plant*

### Outstanding High School Teachers

MARY ANTONI, Lansdale Catholic High  
School  
DENISE D. TUMELTY, Abington School  
District (Retired, posthumous)

# SOCIETY AWARDS

To help us celebrate engineering in the Delaware Valley, the Engineers' Club has established an effort to recognize the many and various projects and individuals cited by the engineering and technical societies in our region. This illustrates the varied fields and specialties covered by these groups and the notable contributions made in these specialty areas by engineers.

This information has been submitted for recognition by the noted societies.

## American Society of Civil Engineers, Philadelphia Section

Philadelphia Civil Engineer of the Year  
*Darin L. Gatti, PE, City of Philadelphia  
Department of Streets*

Young Civil Engineer of the Year  
*Dennis Wilson, McCormick Taylor*

Geotechnical Engineer of the Year  
*Sarah McInnes, Pennsylvania Department  
of Transportation*

Structural Engineer of the Year  
*Gregory Dunn, PE, Michael Baker  
International*

Transportation Engineer of the Year  
*Robert L. Lund, PE, SEPTA*

Government Service Award  
*Louis Belmonte, Pennsylvania Department  
of Transportation*

Community Outreach and Service Award  
*Lindsay Chateauvert, Amtrak  
Danielle Schroeder, Pennoni*

## American Society of Highway Engineers, Delaware Valley Section

2019 Project of the Year (over \$10 million)  
  
*Vine Street Expressway (SR 676)  
Overhead Bridges Replacement  
Pennsylvania Department of Transportation  
(owner), Pennoni (designer), Urban  
Engineers (construction manager), Buckley  
& Company (contractor)*

2019 Project of the Year (\$10 million and under)  
  
*Frankford Avenue (SR 13) Bridge  
Rehabilitation  
Pennsylvania Department of Transportation  
(owner), TranSystems (designer), Traffic  
Planning & Design (construction manager),  
Loftus Construction (contractor)*

## THE PEOPLE WHO MAKE ENGINEERS WEEK WORK



The Delaware Valley Engineers Week Committee of the Engineers' Club of Philadelphia sponsors several programs to highlight and celebrate Engineers Week in the Philadelphia area. The events and activities are supported by major corporations and individuals as well as participating societies and universities. All

committee members are volunteers, several having volunteered their time for many years. We thank all the members and their employers for their support of the programs.

The 2021 Delaware Valley Engineers Week Committee includes:

<i>Engineer of the Year</i>	Stephen M. Hall, PE
<i>Committee Chair</i>	Robert M. Wright, PE
<i>Chair, Advisory Committee</i>	Suzette Schultz
<i>Director, Administration</i>	Helene M. Brennan, PE
<i>Director, Awards</i>	AnnMarie L. Vigilante, PE
<i>Director, Events</i>	Christopher J. Menna, PE
<i>Director, Fund Development</i>	Jennifer K. Walsh, PE
<i>Director, Public Relations and Outreach</i>	Robert M. Wright, PE
<i>President, Engineers' Club Of Philadelphia</i>	Christopher J. Holliday, PE, 2018-20 Christopher J. Menna, PE, 2020-22

### Deputy Directors

*Administration/Outreach* - Alexa Egan Harper, PE  
*Awards* - Briana Pampuch, PE; Mark Kinnee, PE  
*Events* - Erica Antoine, PE; Kevn Brown, PE; Dennis Wilson, PE  
*Fund Development* – Ruben David, PE; Michael Grantner, PE; Chris Rood, PE

## COMMITTEE MEMBERS

Anthony Cirillo, PE	Ernest Hanna, PE
T. James Cokonis, PE	Casey A. Moore, PE
Christopher Gray, PE	

## AWARD SELECTION ASSISTANCE

Kevin Brown, EIT	Tyler Ladd, PE
Assunta Daprano	Helen Lam, PE
Danielle Eisenstock	Carol C. Martsof, PE
Abbey Gancz, PE	Catherine Martsof
Christopher Gray, PE	

# THE HISTORY OF ENGINEERS WEEK IN THE DELAWARE VALLEY

Engineers Week is celebrated in February of each year to recognize and highlight engineering accomplishments throughout the nation. Engineers have helped build our nation since its founding. Our first President, George Washington, conducted engineering activities as a soldier and as a young man, surveying and mapping wilderness territories in our young, growing nation. As a tribute to his work, Engineers Week is scheduled to include his actual birthday (February 22).

Today, engineers are essential for the designing, building and maintenance of the systems that protect our health and safety, restore and safeguard our environment, make our factories run, contribute to our economic future, and allow us to enjoy the quality of lifestyle that we have.

Yet, for all of these contributions toward building a modern society, most people do not know much about engineers or what they do. Some have called engineering the “stealth” profession, although nearly 2 million Americans are engineers. Engineers Week is therefore needed to inform citizens of the value of engineers, celebrate engineering advances and technology, and cultivate interest in the STEM fields (science, technology, engineering and mathematics) among our youth, tomorrow’s work force.

In 1953, the Philadelphia Chapter of the Pennsylvania Society of Professional Engineers initiated the celebration of Engineers Week in the Delaware Valley. Over the course of the next few years, additional local PSPE chapters, along with other technical societies, became involved with the initiative. The Delaware Valley Engineers Week Committee (later Council) (DVEWC) was later formed and included representation from the regional technical/professional societies from throughout the Delaware Valley. DVEWC has organized the Engineers Week celebration in the Delaware Valley ever since.

The Engineers’ Club of Philadelphia was founded in 1877, and has had a varied history over these years. As part of several initiatives, the Club is working to re-establish the strong connection with affiliated technical and engineering societies that had existed in the past.

In 2008 the Council and the Club merged their operations resulting in the Engineers Week organizers becoming a Committee of the Club. The goal of the

Club is to become the Engineering Center for the Philadelphia and Delaware Valley region. By organizing and delivering Engineers Week using the Delaware Valley Engineers Week Committee, the Club is working toward this goal by strengthening its resources and allowing Engineers Week organizers to plan strategically for improved celebrations and greater visibility.

# PHILADELPHIA ENGINEERING FOUNDATION GOLF OUTING

Our 21st Annual Golf Outing, also known as the Mulford Classic, occurred on October 12, with over 70 participants, and, as usual, it was all for a good cause. The proceeds of the outing will go toward Delaware Valley Engineers Week scholarships, activities and programs supported by PEF.

The winner of the prized Mulford Prism, awarded to the low scoring team in the Outing, was the Brehm Nofer & McCarter squad, taking home the Prism for the fourth year in a row.

Thanks to all who participated and sponsored as well as our diligent volunteers and Golf Committee for making the Outing a success once again.

Outing Sponsors:

## **Gold**

*Pennoni*

## **Silver**

*Gannett Fleming*

## **Bronze**

*Brehm, Nofer & McCarter*

*Jacobs*

*Kreischer Miller*

*Greyhawk*

*McMahon Associates*

*Michael Baker International*

*STV*

*Traffic Planning & Design*

*Urban Engineers*

*Women's Transportation*

*Seminar, Philadelphia*

*Chapter*



## **Hole Sponsors**

*Greyhawk*

*Imperial Traffic & Data*

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In the second annual *Affiliate Cup Challenge*, seven teams entered to compete for his honor, representing local technical societies. This year's winner was the foursome from the Society of American Military Engineers (SAME).

Our 22<sup>nd</sup> annual Golf Outing is scheduled for Monday, October 11. Please mark your calendar and plan to attend. More details will be provided this Summer.



## IN MEMORIAM

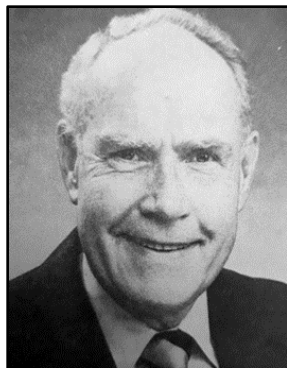
### RICHARD A. MULFORD, PE

As 2020 Engineers Week was winding down, the local engineering community lost perhaps its strongest supporter, volunteer and "cheerleader". Richard A. Mulford passed away peacefully on February 19, 2020 at the age of 89.

After what he described as a "difficult start" in his college career, Dick decided to buckle down and excelled academically. In 1952 he earned a Bachelor of Science degree with a certificate of distinction in Mechanical Engineering from the University of Pennsylvania and continued on to obtain his Master's Degree from Penn in 1957. He continued his educational pursuits later in his career and graduated from the Tuck Executive Program at Dartmouth College in 1985. He spent his entire career as an engineer with the Philadelphia Electric Company, retiring in 1990 after 38 years at the utility. He was the lead engineer and project manager in planning and building the Limerick Nuclear Power Plant.

Dick was an active and avid volunteer in professional societies which included the Pennsylvania Society of Professional Engineers as well as the Engineers' Club. He served his alma mater as an alumni volunteer for the Office of Development for the School of Engineering and Applied Sciences and received the University of Pennsylvania Alumni Award of Merit, the highest honor given to an alumnus, for his meritorious and diligent service. He earned many other honors and awards, including the George Washington Medal from the Engineers' Club, the Presidential Award from the American Society of Civil Engineers, Philadelphia Section, and the D. Robert Yarnall Award from the University of Pennsylvania. He was also inducted into the Pennsylvania Society of Engineers President's Dedicated Service Award Hall of Fame.

But Dick's academic and engineering success were only part of his story. His faith in God and devotion to serving others truly defined him. He selflessly donated to charitable causes and organizations and strongly supported his local ward in the Church of Jesus Christ of Latter-Day



Saints. He enjoyed singing in the church choir, taking friends and family to dinner (his treat), and listening to classical music. His advice for success in life, which he lived by, "Be totally honest because if you make something up it will always come back to you; give 110% to everything you do; and keep a bright outlook—always be positive." His work ethic, devotion to God, and service to others is singular and unmatched. He made great efforts to be involved in programs that made scholarships available to engineering students, to help those who were in the "same shoes as I was", as he described it.

While Dick retired from his position at Peco, he didn't stop working, and became the volunteer Executive Director of the Engineers' Club, a position he held for over sixteen years. Working with two other devoted volunteers, the team managed to bring the Club back from some financial and organizational difficulties and reinvigorate it to continue its service to the engineering community. He was a leader in the efforts to promote Delaware Valley Engineers Week for many years and helped established a scholarship fund to award funds to worthy students during Engineers Week. He gave of himself outside of the engineering "umbrella" as well, as a volunteer serving the sick and afflicted at Paoli Hospital. During his 15 years of service at the Hospital, he committed over 13,000 hours to serving patients and blessing their lives with his warm smile and bright countenance.

## 200 YEARS + AGO IN DELAWARE VALLEY ENGINEERING...

### Federal Installations – Frankford Arsenal, Navy Yard

Philadelphia, the largest city in the young United States, played a key role in many aspects of the formation of the new nation as it was happening. This included its defense infrastructure and related engineering needs.

The Frankford Arsenal, in the Bridesburg section of lower Northeast Philadelphia, opened in 1816 on 20 acres of land purchased by President James Madison, to serve as the center of US military small-arms ammunition design and development. This later expanded to include the manufacture of fire-control and range-finding instruments and gauges for these components.

By the end of the Civil War, the Arsenal employed over 1,000 workers. It served as a major site for the storage of weapons and artillery pieces, a depot for the repair of artillery, cavalry and infantry equipment, the manufacture of percussion powder, and the testing of new forms of gunpowder and time fuses. Among the innovations extensively tested there was the Gatling Gun, an early form of machine gun. During World Wars I and II, the Arsenal was busy with supplying the war efforts, providing a major source of jobs and income for the region. At times, employment reached 22,000.

The Arsenal was an entity unto itself, a virtual city within a city, and contained everything from its own police and fire departments, dining halls, motor pool, and a complete medical facility. As military weapons became more complex, its role expanded to cover the development of a whole range of the Army's more advanced weapon systems. The Arsenal contained the world-famous Pitman-Dunn Laboratories along with a number of other R&D departments. Arsenal scientists and

engineers designed and developed everything from basic materials to LASER guided ballistics, all produced entirely in-house from the concept phase to the fielding of the equipment. New portable and imbedded computer applications saw the development of the LASER rangefinder, fielded artillery computational machines (FADAC) and radar systems. During the Vietnam War, experiments in caseless ammunition, far-infrared low-light-level technologies, and advanced LASER applications were under development.

As the US military-industrial complex grew, the Arsenal could no longer compete as a manufacturing entity. More and more of its programs were farmed out to industry. The Arsenal's functions were eventually transferred to the Picatinny Arsenal in New Jersey. Despite political commitments otherwise, the Arsenal closed for government use in 1977. Since then, the property has been repurposed as a "business incubator" and commercial center, home to numerous concerns.

The Philadelphia Naval Base was established by the fledgling US Navy as its Southwark Yard, on the Delaware River between Federal Street and Reed Street, in 1801. It remained active for much of the 19th century, serving the country as a production center during the War of 1812 and through the Civil War.

New technology allowing ironclad ships changed the production process, necessitating changes at the Southwark Yard to keep it competitive with newer facilities in Massachusetts and Virginia. Investments in floating dry docks (the first in the world) extended the yard's useful life, but eventually it became clear that Philadelphia would need an entirely new shipyard. In 1868, the City of Philadelphia transferred the 923-acre League Island to the US Government for \$1. Funding came slowly in the wake of the Civil War, but the first buildings began to rise in the 1870's. After eight years of running two shipyards, Southwark closed in 1876.

The Philadelphia Naval Shipyard, locally known as the Navy Yard, continued to operate as a naval base at League Island until 1996, employing more than 40,000 people during its peak production period in World War II. During that time, 53 warships were constructed, and an additional 1,218 were repaired. Like the Frankford Arsenal, the Yard was its own self-sustaining city within a city, managing its own public works, fire department, and transit service.

In 1970, the last new ship to be built at the Yard, the USS Blue Ridge, was completed. Rumors of closure persisted in the decades following, becoming reality when the Base Realignment and Closure Commission (BRAC) made the decision to cease operations in 1991. A court challenge postponed the inevitable for several years, and in the interim the USS John F. Kennedy received a

service-life extension overhaul at the Yard, which would be its final assignment. The facility closed in 1996.

Like the Arsenal, the Yard was repurposed for private industry use, and more than \$150 million in publicly funded infrastructure improvements has leveraged in excess of \$750 million of private investment, with the Philadelphia Industrial Development Corporation (PIDC) overseeing and managing the operation, which reverted to its former name as the Navy Yard. Today, the Navy Yard is a thriving, 1,200-acre business community where 150 companies occupy over 7.5 million square feet of office, industrial/manufacturing, and research and development space. The US Navy's Naval Ship Systems Engineering Station (NAVSSSES), the Propeller Shop and Foundry, and the Naval Inactive Ship Maintenance Facility remain in operations at the Navy Yard.

## DELAWARE VALLEY ENGINEERS WEEK SPONSORS

The Delaware Valley Engineers Week Committee and all of the Engineers Week activities that it sponsors are funded solely by contributions from numerous individuals, corporations, societies, and educational institutions. Without their support, the Committee would not have the resources to recognize the achievements of the engineering communities in the Delaware Valley. The Committee would like to thank all of our contributors, with special thanks going toward the following people and organizations for their generous support of Engineers Week events.

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### Franklin (\$2000 to \$3499)

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**Bold** indicates Engineers' Club of Philadelphia corporate member

\* indicates Golf Outing sponsor

**THANK YOU FOR YOUR SUPPORT!**

# 2021

## DELAWARE VALLEY ENGINEERS WEEK

The Engineers' Club of Philadelphia is pleased to sponsor Delaware Valley Engineers Week (DVEW) on behalf of the affiliated engineering-related societies. This continues the tradition started in 1953 by the Philadelphia Chapter of the Pennsylvania Society of Professional Engineers (PSPE). DVEW is one of several celebrations of Engineers Week in our region. A number of other technical societies, universities, and companies conduct events and celebrations geared toward their own constituents. Information on some of these celebrations is available at [www.engrclub.org](http://www.engrclub.org).

*The Engineers' Club of Philadelphia offers individual, student and corporate memberships to further the goals of relationship building and networking among technical professionals, communication and collaboration among engineers, raising the awareness of engineering in our society, and the professional development of its members. For more information on the Club, its programs, and membership, please visit [www.engrclub.org](http://www.engrclub.org).*

*The Philadelphia Engineering Foundation (PEF), a 501(c)3 organization and charitable arm of the Club, supports the role of the engineering profession and helps develop and retain local engineering workforce in the Greater Philadelphia region. One of the Foundation's major efforts is raising funds for the various scholarships and other student and teacher awards presented as part of DVEW. More information is available at [www.engrclub.org](http://www.engrclub.org).*

Delaware Valley Engineers Week 2022  
is tentatively scheduled for February 17-26



**Engineers – Imagining Tomorrow**