



Valley Engineer Newsletter

September-October 2022

ACTIVITIES



**PENNSYLVANIA SOCIETY
OF
PROFESSIONAL ENGINEERS**

**LEHIGH VALLEY CHAPTER
(ORGANIZED 1935)**

CARBON, LEHIGH, MONROE, & NORTHAMPTON COUNTIES

Welcome Back!

Jeff Kutz, EIT, President

Welcome back to what is hopefully shaping up to be a much more normal year for the LVPSE. We have started our meetings this year, which continue to take place on the second Monday of each month, much in the same way most companies have adapted to the post COVID world with a hybrid approach of mixed attendance of virtual and in person meetings. This seems to be a change in the working world that is here to stay, as it blends the flexibility of a remote work force while maintaining in-person interaction. Striking a balance and adapting our workflows on complex engineering projects has no doubt been complicated, but with time and effort is ultimately proving effective.

Along with this return to normal is the hope that we can re-engage much of our membership to be active in forthcoming outings to not only earn PDHs but to also support the organization's efforts for fundraising. Our fundraising initiatives go towards support of local STEM programs and scholarships for students pursuing engineering in college. The outings are just one of the different ways that provide funding, along with generous donations from local companies and individuals.

As a reminder to everyone in our community, each year during the LVEC Engineering Week banquet the LVPSPE has presented awards for Engineer of the Year and Young Engineer of the Year. These awards recognize outstanding individuals in the field of engineering, and we ask that you look at your engineering colleagues for their individual efforts and consider nominating them for consideration. You can find the list of winners from previous years on our website along

with the application to nominate candidates for consideration of this year's award.

We are looking forward to another great year and we hope to see you at one of our planned activities!

Please follow us on LinkedIn at **Pennsylvania Society of Professional Engineers - Lehigh Valley Chapter** for the latest news and updates. Thank you. Stay Safe and Stay Active.

**Peter O. Staffeld, PhD, PE, F.NSPE
PSPE Engineer of the Year**

It is with honor that we recognize one of our own, Peter Staffeld, Phd, PE, F.NSPE, as the recipient of the PSPE Engineer of the Year award at the PSPE installation and awards dinner at Wilkes University in September.



Peter Staffeld receiving the PSPE Engineer of the Year Award from David Williams, PE PSPE, VP Western Region and PSPE Awards Committee Chairman.

Peter has a long and distinguished career in industry and in academia. He received a Bachelors of Science in Chemical Engineering at Michigan State University, then a Masters of Science and a PhD in Chemical Engineering from the University of Pennsylvania.

Peter was employed for many years by ExxonMobil, then as Vice President of Polymer Dynamics. In 2008 he became a registered Professional Engineer and started Staffeld Engineering Services. He joined the Chemical Engineering faculty at Villanova University in 2009 as a Visiting Professor. At Villanova he founded the National Society of Professional Engineers student group and Link #299 of the Order of the Engineer. Since 2017 he has written questions for the Fundamentals of Engineering exam. He was named President of the Pennsylvania Engineering Foundation in 2021 and is expanding the scholarship program. He recently was promoted to full Teaching Professor at Villanova.

Closer to home, he was President of the Lehigh Valley Chapter of the Pennsylvania Society of Professional Engineers for two years, State Treasurer for PSPE for five years, and has served on several committees for NSPE. He was named a Fellow of NSPE in 2014.

He and his wife Leslie reside in Center Valley and are co-chairs of the Lehigh Valley Chapter of the American Wine Society.

CHACO CANYON, NEW MEXICO

Alfred Gruenke, PE

Previously in this newsletter I wrote about the magical staircase at Loretto Chapel in Santa Fe, New Mexico. But this mind-boggling (especially for engineers) structure is not the only fascinating feature of New Mexico.

First, a short rendition on New Mexico. One should not use the word "exotic" too frequently, because overuse will, well, reduce the exotica to the merely mundane; however, within the United States, New Mexico certainly rates as exotic. It's not called "Land of Enchantment" for nothing!

After a vendor seminar in Santa Fe my wife and I took the opportunity to tour a fascinating place, Chaco Canyon. Located about a hundred miles northwest of Albuquerque and sixty miles from the Four Corners, Chaco Canyon was an ancestral Puebloan habitat. It was the home of thousands of peoples and was a major center of Puebloan culture between 850 and 1250 A.D.

Continued on page 11

SCHOLARSHIP SPONSORS

A great way to be involved in the LVPSPE Chapter is to contribute to the **LVPSPE SCHOLARSHIP FUND**. Please Contact the Valley Engineer Editor to sponsor scholarships for the remainder of the calendar year.

If you would like to contribute any amount – please send your TAX-DEDUCTIBLE donation to PA ENGINEERING FUND. Donations should be mailed to:

**PA Engineering Foundation % LVPSPE
P.O. Box 195
Northampton, PA 18067**

Please note “LVPSPE Scholarship Fund” on the comment line.

Or, you may also contribute via the LVPSPE website <http://www.lvpspe.org/Donations>.

Scholarship application is at <http://www.lvpspe.org/Scholarships>. Any questions regarding scholarships can be directed to

Alex Dezubay, PE
610-597-2007
Scholarship@LVPSPE.org

PEF SCHOLARSHIPS

The Pennsylvania Engineering Foundation oversees the Pennsylvania MATHCOUNTS® program and PEF Scholarships. The purpose is to help nurture future engineers.

2022 – 2023 LVPSPE SCHOLARSHIP DONORS

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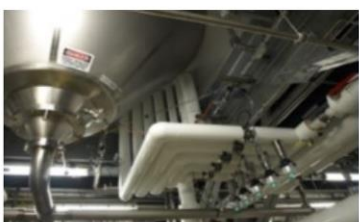
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Internet Addresses

National Society of Professional Engineers

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www.PSPE.org

Lehigh Valley Chapter – PSPE

www.LVPSPE.org

2022 – 2023 State Officers

State officers

State Director – Michael Basta, PE, F.NSPE
Directors@LVPSPE.org

Alt State Director – Angelika Forndran, PE
Directors@LVPSPE.org

VP Northeast

Marleen Troy, PE, PhD
570-408-4615

Board of Direction Meetings

The monthly Board of Direction meetings are 6:00 PM on the second (2nd) Monday of each month. Open to all members; they are held in person at the office of Bridge Gap Engineering (1717 Main Street, Northampton) and hybrid via Zoom until further notice.

2022 – 2023 Chapter Officers

Chapter officers

President – Jeffrey Kutz, EIT
President@LVPSPE.org
215-325-1303

Vice President – Alexa Rooney, EIT
VicePresident@LVPSPE.org
610-774-6011

Treasurer – Ray Szczucki, PE
Treasurer@LVPSPE.org
610-614-1245

Secretary – Chris Williams, PE, LEED AP
Secretary@LVPSPE.org
610-398-0904

Past President – Al Dezubay, PE
PastPresident@LVPSPE.org
610-597-2007

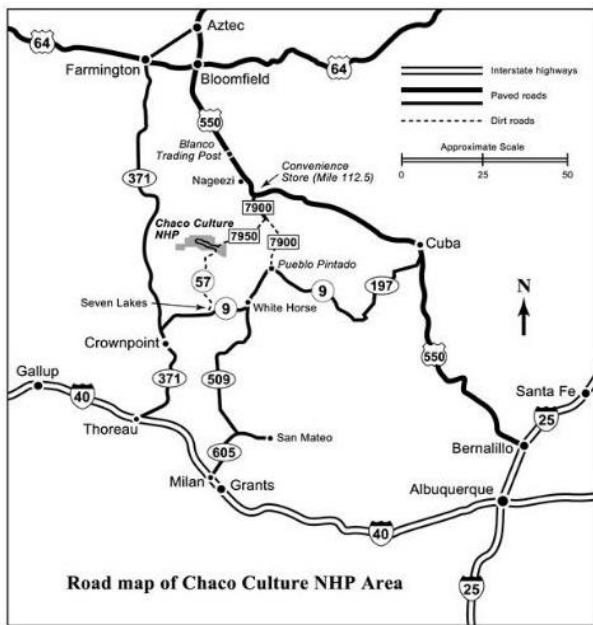
Chapter Directors

Director – Mary Rooney, PE
Directors@LVPSPE.org

Director – Frank Walsh, PE
Directors@LVPSPE.org

Their generic name is the Anasazi, a Navajo word meaning Ancient Ones or Ancient Enemies. According to the Visitor Center, Chaco Canyon was situated on a north-south trade route which extending from southern Mexico to the near Arctic. The reasons for its demise vary. Prolonged draught, religious strife, and conquest by neighboring peoples are often cited. Chaco Canyon National Monument was established on March 11, 1907, by Theodore Roosevelt.

as straw, dried grass, or dung. Organic material binds the brick together and allows the brick to dry evenly, thereby preventing cracking. The "mortar" is typically composed of sand, silt and clay. It was the building material of choice in the arid climate of the American Southwest. The structures were up to four stories high, the largest in North America until the 19th century, and are the oldest cities in North America. There is a little stream in the canyon, which was probably the water source for an extensive irrigation system. There are presently many Native American communities (pueblos) housing thousands of Native Americans in New Mexico built with adobe, but I had no opportunity to visit them.



Getting to Chaco Canyon is not for the faint of heart. A hundred miles west on I-40, twenty miles north on Rt. 371, then a few miles on Navajo Service 9, and you run out of paved road. The last twenty miles is a dirt road, with no services.



On the road to Chaco Canyon

In the Northeast we picture Native American homes as consisting of makeshift structures, or maybe teepees. Not so in the Southwest! These were multistory houses built with adobe bricks and sandstones, held together with mud. Sandstone and timber had to be hauled considerable distances, attesting the sophistication of these peoples. I had to look up the details. Adobe brick is a composite material made of earth mixed with water and an organic material such



A mesa on the way to Chaco Canyon

A minor observation. I did note that the "square" corner of the buildings were frequently a bit more, or a bit less, than 90°. They were still spectacular, though.

Chaco Canyon isn't the only Anasazi habitat in the Americas. The Four Corner area (Utah, Arizona, New Mexico, Colorado) has a number of them, notably Mesa Verde, and the cliff dwellings in Arizona and Mesa Verde. Anasazi habitats have always been of interest to me, and I've taken a couple of family vacations as well as side-trips from work-related trips to view them. I may write articles on these, if I can find the photographs.



The base of kivas, religious structures.



A rather formidable structure! Note the wooden beams that supported a second story.



Chaco Canyon Depicting the Super Nova of 1054. The cylinders attached to the rock are wasp nests.



Close-up of adobe wall

Chaco Canyon has been adopted by "New Agers" as a center for energy vortexes or something like that. One of reasons for such adoration is the supposed depiction of the Super Nova of 1054 on a horizontal rock overhang about a mile from the park entrance. Maybe it is the Super Nova, but it would take more than the imagination of a mere engineer to interpret these

Continued on page 13

paintings as anything more than a hand, a waning (or waxing) moon, and rays from something, maybe the sun. I'll leave it at that. Chaco Canyon may be mysterious, or maybe even mythical, but whatever emotions one supposedly feels in such august surroundings escaped me. I did, however, feel the history. People lived, built homes, raised crops, and established a civilization. I wish they had left better records so we could know them better.

I would recommend a trip to Chaco Canyon for anyone in the Four Corner area. Long abandoned, but an important element of American history. So, fill up the tank, kick the tires, and go.

Why athletes can't have regular jobs

1. Chicago Cubs outfielder Andre Dawson on being a role model:

"I wan' all dem kids to do what I do, to look up to me. I wan' all the kids to copulate me."

2. New Orleans Saint RB George Rogers when asked about the upcoming season: "I want to rush for 1,000 or 1,500 yards, whichever comes first."

3. And, upon hearing Joe Jacobi of the Skin's say: "I'd run over my own mother to win the Super Bowl," Matt Millen of the Raiders said: "To win, I'd run over Joe's Mom, too."

4. Torrin Polk, University of Houston receiver, on his coach, John Jenkins: "He treats us like men. He lets us wear earrings."

5. Football commentator and former player Joe Theismann: "Nobody in football should be called a genius. A genius is a guy like Norman Einstein."

6. Senior basketball player at the University of Pittsburgh: "I'm going to graduate on time, no matter how long it takes." (Now that is beautiful.)

7. Bill Peterson, a Florida State football coach:

"You guys line up alphabetically by height." And, "You guys pair up in groups of three, and then line up in a circle."

8. Boxing promoter Dan Duva on Mike Tyson going to prison:

"Why would anyone expect him to come out smarter? He went to prison for three years, not Princeton."

9. Stu Grimson, Chicago Blackhawks left wing, explaining why he keeps a color photo of himself above his locker:

"That's so when I forget how to spell my name, I can still find my clothes."

10. Lou Duva, veteran boxing trainer, on the Spartan training regime of heavyweight Andrew Golota:

"He's a guy who gets up at six o'clock in the morning, regardless of what time it is."

11. Chuck Nevitt, North Carolina State basketball player, explaining to Coach Jim Valvano why he appeared nervous at practice:

"My sister's expecting a baby, and I don't know if I'm going to be an uncle or an aunt." (I wonder if his IQ ever hit room temperature in January.)

12. Frank Layden, Utah Jazz president, on a former player:

"I told him, 'Son, what is it with you? Is it ignorance or apathy?' He said, 'Coach, I don't know and I don't care.'"

13. Shelby Metcalf, basketball coach at Texas A&M, recounting what he told a player who received four F's and one D:

"Son, looks to me like you're spending too much time on one subject."

14. In the words of NC State great Charles Shackelford:

"I can go to my left or right, I am amphibious."

Decaf is for quitters.

-August Polinske

The problem we face today is because the people that work for a living are outnumbered by those who vote for a living.

-Will Rogers (1879-1935)

Lehigh Valley Chapter
Pennsylvania Society of Professional Engineers
Lehigh, Northampton, Monroe and Carbon Counties

Minutes for the September 19, 2022 Board of Directors Meeting
6:00pm at Bridge Gap Engineering office & online

Attendees: Jeff Kutz, Al Gruenke, Mary Rooney, Ray Szczucki, Angelika Forndran, and Mike Basta.

A. Call to Order: 6:03

B. President – Jeff Kutz

- Meetings will resume regular schedule going forward. Second Monday of each month at 6pm, typically both remote and at Bridge Gap's office.
- Activities – Let's get back to normal with monthly events. Discussed scheduling event at the Grist Mill.
- Jeff will get President's message to Al G.; newsletter will follow shortly after.
- Peter receiving EOY award from PSPE on Friday 9/23 at Wilkes University. Angelika will get picture to Al G. for inclusion in newsletter.
- MATHCOUNTS – will there be an in-person event or all virtual? Let's follow up.
- 'Board' email address is not getting emails to the president's email, so be sure to use Jeff's Bridge Gap email for now.

C. Lehigh Valley EOY/YEOY & Scholarships

- Fundraising – Frank suggested more involvement from others in the Chapter. Might not continue spearheading the fundraising efforts next year so it would be good to get someone else familiarized. Raised \$10,850 last year.
- Discussed donations that fell through last year and a few to target for this year. For reference, previous fundraising high was \$13,400.
- Scholarships – Nothing until January. Jeff will reach out to guidance counselors earlier this year in hopes of increasing number of application submissions.

D. Treasurer - Ray Szczucki

- Ray reviewed status of account balances:
 - i. Checking \$1,534.60
 - ii. Savings \$9,049.67
 - iii. PayPal – couple thousand still in account. Transactions through website stay there (Affinipay) and Ray will keep funds there due to favorable interest rates.
- Since July 1, 2022:
 - i. Wild Apricot \$110.00 monthly fees, July and August
 - ii. Late scholarship donation of \$100.00 in August
 - iii. Dues from PSPE \$105 received in August
 - iv. Invoice from DeSales for scholarship dinner - \$767.68 paid in August
 - v. Annual dues disbursement and filing of 990 form – Ray working on these items in next couple of weeks.

E. State Director – Mike Basta

- First board meeting coming up Saturday 9/24.
- Mike previously sent the following note via email:
 - i. Chapter PSPE Activities for last quarter of 2022 Lehigh Valley. Chapter Board Meetings started September 2022, Lehigh Valley Chapter will hold monthly Board of Directors meetings in person with option for remote attendance through zoom. Board of Directors Meetings board meetings are held second Monday of each month at 6 pm.
 - ii. Programs: We will be discussing, possible tours at industries in the Lehigh Valley and Berks County which would qualify for Continue Education Credits. We will begin planning for holiday dinner for December.
 - iii. Engineer and Young Engineer of the Year Awards Applications are open for LV chapter nominations January 2023.
 - iv. Preparing for MATHCOUNTS
 - v. LV-PSPE chapter will continue its newsletter which is distributed to members via email on bi-monthly basis.

F. Past President – Al Dezubay

- Keep in mind which Board positions you may be interested in for next year. Past President's slate of officers will be due in March for installation in May.

G. Old Business/New Business

- Jeff mentioned considering website upgrades in the future. Will take some capitol to accomplish this. Unsure if we can handle it in this year's budget or push it to the future.
- Jeff will continue to manage the LinkedIn page and post updates on tours, events, newsletter, etc.
- Mike has list of possible event locations, will share via email.
- Future meeting schedule (2nd Monday each month, 6pm):
 - i. October 10, 2022
 - ii. November 14, 2022
 - iii. December 12, 2022
 - iv. January 9, 2023
 - v. February 13, 2023
 - vi. March 13, 2023
 - vii. April 10, 2023
 - viii. May 8, 2023

H. Adjournment on motion by Frank, seconded by Mike at 6:33.

Minutes for the October 10, 2022 Board of Directors Meeting
6:00pm at Bridge Gap Engineering office & online

Attendees: Jeff Kutz, Al Gruenke, Al Dezubay, Frank Walsh, Ray Szczucki, Angelika Forndran, Chris Williams, Mary Rooney, and Mike Basta.

A. Call to Order: 6:02

B. President – Jeff Kutz

- Al mentioned tour opportunity at Everson Tesla.
- Jeff will follow up with Alexa on events this week.
- Jeff provided President’s message to Al for inclusion in newsletter.
- Angelika provided photographs to Peter Staffeld’s EOY award ceremony for newsletter.
- Chris mentioned MATHCOUNTS is back in person again. Kevin Campbell is coordinating with local school districts to find a location. Prior events cost an average of about \$3,000 per year.
- Jeff reiterated that we should get Frank some help with fundraising.
- Angelika mentioned ASCE golf tournament which benefits the LVPSPE scholarship fund.

C. Treasurer discussed recent payments and balances

- Yearly cost for P.O. Box was \$92.00
- Wild Apricot fee \$110.00
- Balances as of Sept 30th
 - i. \$1,424.60 Checking
 - ii. \$9,049.74 Savings
- Will be ordering checks for checking account

D. State Director – Mike Basta

- Updated the State on our chapter activities.
- Next state meeting is being held in Berks County.
- Treasurer reported PSPE is in good shape financially.
- Discussed membership drive, Mike will share more info as it is available.

E. Past President – Al Dezubay

- Need to rally the troops to find some directors/officers for next year. Let’s look through membership ranks and see who we have at various company contacts.

F. New Business

- Jeff will be active on social media.
- Mary reported the Engineers Week Banquet is being held Feb 24th at Lehigh University. Requested that we move up EOY and YEOY submission deadline to 1/15 rather than 1/30.
- All discussed being active to bring in some good applications.
- Jeff discussed website update options long term. Main concern being financial.
- Future meeting schedule (2nd Monday each month, 6pm):
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