



QUALITY ♦ SAFETY ♦ TEAMWORK ♦ INTEGRITY ♦ COMMITMENT

STRONGHOLD ENGINEERING, INC

2023 FIRST QUARTER NEWSLETTER



COST
\$369 THOUSAND

DURATION
SEPTEMBER 2021 -
MAY 2022

TYPE
ELECTRICAL

THERMAL-VAC TECHNOLOGY, BESS

Thermal-Vac Technology, Inc, Orange, CA

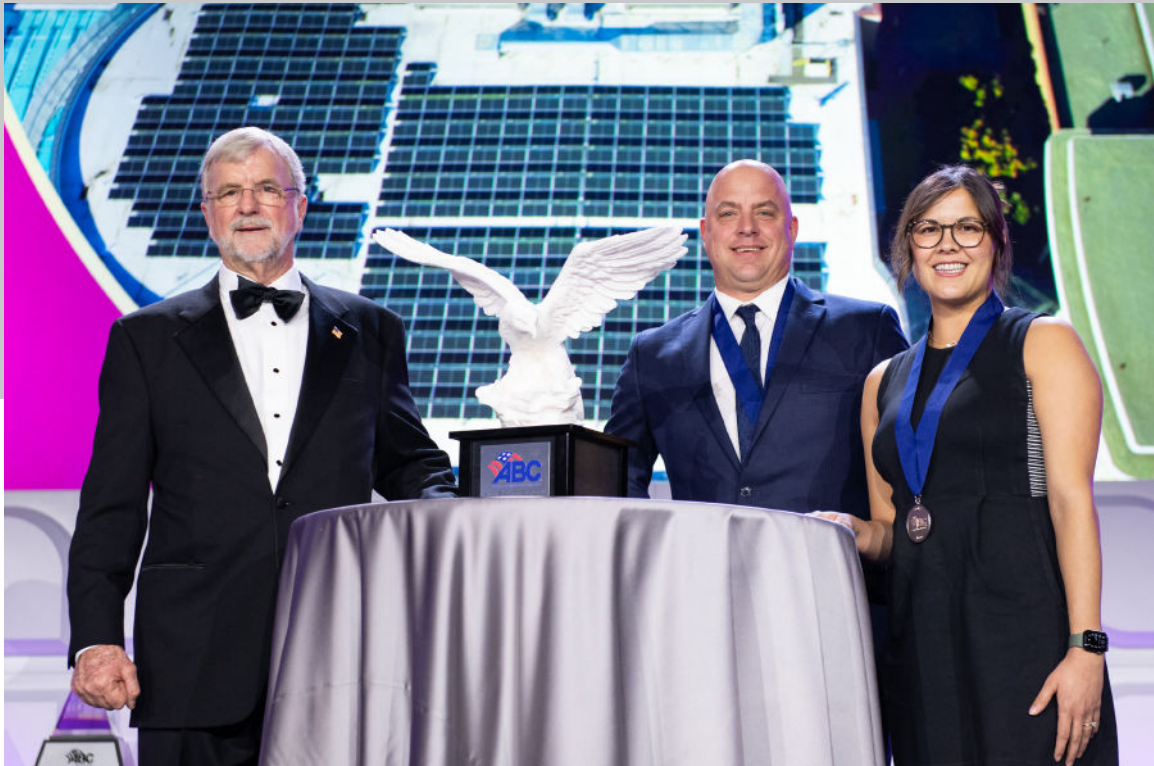
Stronghold was contracted to design and install a 480kW BESS (Battery Energy Storage System) for Thermal-Vac Technologies. The system is comprised of four (4) Znyth Aurora Gen 2.3 containerized DC battery energy storage systems (BESS) along with EMS (Energy Management System) enclosures, inverters and all associated equipment and controls required for communications and monitoring.

Thermal-Vac is a leading provider of heat treatment and brazing services, with specific focus on the aerospace industry. Because the industrial furnaces they use consume an enormous amount of energy, Thermal was looking for creative ways to reduce their electricity costs. The solution, in this case, was to install a BESS system.

BESS systems use lithium-ion batteries to store electricity. These systems are often paired with solar panels to store solar energy for future use. In this case, however, the system's primary purpose is to act as a sort of energy arbitrage. The batteries pull energy from the grid and store it when it is cheaper to do so, based on the TOU (Time of Use) plan offered by Thermal's local utility. Then, when electricity cost is at its highest, Thermal can switch over to using the stored energy in the batteries to offset the high cost of using electricity during peak hours. With less energy pulled from the grid during peak hours, the result is a savings in total electricity cost. This process is known as peak shaving and the practice can substantially reduce energy costs, particularly for high-volume users.



NATIONAL EXCELLENCE IN CONSTRUCTION EAGLE AWARD



Alyssa Digangi, *right* and Robert Stuart, *middle*, accepting the national Excellence in Construction Eagle Award

On March 16, 2023 we were presented a national Excellence in Construction® Eagle Award for our University of California, Riverside Solar Rooftop Initiative Project. The EIC awards, presented to 82 of the Nation's top construction projects in 2022, are the construction industry's leading national competition that honors General and Specialty Contractors for world-class, safe and innovative construction projects from across the Nation.

Stronghold Engineering Inc. was hired to design, construct and install a PV system on two large, targeted campus buildings: the Student Recreation Center, with a total rooftop area of 47,400 sq. ft., and the Student Services Building, with a gross rooftop area of approximately 17,850 sq. ft. The result is a 474kW system comprised of over 1,000 435W solar panels that feeds directly into the campus electrical system. To maximize power efficiency and roof space, the team selected panels with a dual-tilt, east-west facing system. The low tilt angle minimizes inter-row shading and allows rows of modules to be mounted closer together, maximizing available array capacity.

"We are honored and blessed to received our 5th national Eagle Award from ABC. Our team stepped up and worked hard to build a quality project for the University of California, Riverside. We appreciate the recognition and strive to continue Building Construction Excellence." – Beverly Bailey

Did you know ABC is a member-run association? Members identify issues critical to merit shop construction and work together to find solutions using the resources of one of the largest construction-related groups in the world.

ABC is governed by a 200-member board of directors composed of delegates from each of ABC's chapters. The committee meets three times yearly, and because ABC wants to ensure participation from both large and small contractors, the association reimburses travel expenses.

One of our own, Robert Stuart, Electrical VP, serves on the ABC Board of Trustees. Here's what Robert has to say about being a part of ABC's governance:

"I have been involved with ABC as long as I have been involved in construction, and I can say that it truly looks out for the interest of the contractor and the apprentice. ABC provides opportunities for a college alternative that can set up an individual for a career that will shape their life. They provide the best training and support for the craftsman."

If you would like to find out more information or would like to become involved, reach out to Robert Stuart at robs@teamsei.com.



ABC Excellence in Construction Awards, 2023



ASSOCIATED BUILDERS AND CONTRACTORS



PIT STOP TO THE GRAND CANYON

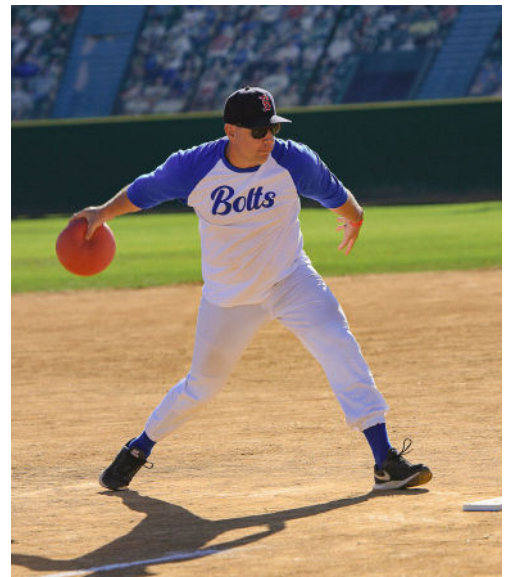
This quarter we received GRAND news. The National Park Service awarded us a multi-year \$208 million construction contract for rehabilitating the Transcanyon Waterline and related upgrades to the associated water delivery system! After officiating the news with our traditional bell ringing, we celebrated the grand opening of the Pit Stop. The Pit Stop is our off-road race-themed space created for celebrating great news and hosting private events. We can't wait to spend quality time and celebrate our accomplishments in the Pit Stop with our team!

WELCOME TO THE WORLD LITTLE ONE

Having a new baby brings lots of unique and beautiful experiences. We want to congratulate the families with new bundles of joy this quarter.

Mirna Mikho and family welcomed son Theo, right, who was born February 18, weighing 7lbs 12oz, measuring 21 inches long.





GIVE IT UP FOR THE STRONGHOLD BOLTS

The Stronghold Bolts competed in the annual American Heart Association kickball tournament at Big League Dreams in Perris. Stronghold's Charity Committee donated \$3,000, which funded participation. The Bolts ran, dived, slid, and hollered as they gave it their all, making their way to the semifinals. However, in a suspense-filled tied game, the Bolts ultimately suffered a loss during overtime and took 3rd overall in the tournament. Nevertheless, we celebrate the Bolts' team effort and sportsmanship and will return for the win next year!



COMING TOGETHER FOR JOE CLARK

This quarter our Charity Committee passed the hard hat around for one of our own, Joe Clark, who was diagnosed with stage 4 appendix cancer that has spread throughout his stomach. Over the last year, Joe has had extensive chemotherapy without improvement. His doctors have stopped treatment, communicating that there is no cure and that Joe should "live his best life." Joe's in his early 40s and not a quitter! He has been trying other methods to kill his cancer and is not giving up.

We are so touched to share that our SEI family got together and donated \$2,058. The amount was matched by SEI Charity Committee, bringing the total to \$4,116, which SEI matched for a final total of \$8,232 gifted to Joe. *We're all rooting for you, Joe; kick cancer's butt!*

IN THE LOOP

We are proud of our team member Austin Gearhart for his outstanding achievement! Austin competed in the 29th Annual ABC SoCal Craft Championships, *right top*, amongst other Craft trainees and apprentices for top honors in their chosen craft. Austin seized the opportunity to demonstrate his superior skills, training, and work practices and took 1st Place in the Electrical Industrial division class and went on to compete Nationally in Orlando at ABC National Craft Championships.

In January the ladies at Stronghold Corporate office got together to throw Mirna a baby shower, *right middle*. The accounting area was carefully decorated to celebrate the soon arrival of her baby boy and guest enjoyed baby bundts (no pun intended) and advice and stories for the momma to be.

This quarter we provided Team SEI Employee kits to all our Team. The kits included equipment and swag with our new logo and branding. We love seeing all those field photos with the fresh hard hats and safety vests, *right bottom*. Lookin' good, team!!





PHOTO OF THE QUARTER

CAL TRANS SB PILE DRIVE

Photo Credit: Jason Kriezel

Our Marketing Team is always on the lookout for photos that showcase the work in the field. Send them in! Each quarter we hand-select the best photo we received, awarding a \$50 gift card to the winner.

**Welcome
TO THE TEAM!**


ZACHARY WALLACE Laborer Helper
WILLIAM FUSTON Electrical Journeyman
DYLAN TAIT Laborer Helper
JARRED EINSELE Equipment Operator
BOB NEWBERRY Project Manager
RAYMOND GOODSON Electrical Journeyman
ZACHARY TODD Site Safety Officer
MATTHEW BARNETT Electrical Journeyman
JENIFHER DAVALOS AP Coordinator
ANDRES SOTO BARRAZA Crane Operator
MICHAEL RAMIREZ Carpenter Journeyman
PRESTON VALENCIANA Laborer Journeyman


SOME FRIENDLY REMINDERS FROM STRONGHOLD'S IT SERVICES TEAM


Be on the lookout for your Cybersecurity Training emails. You can expect to receive these emails on a regular basis. The training emails come from PhinSecurity.com and are mandatory for all SEI employees to complete in a timely manner.


**For the quickest IT assistance, please
email ITHelp@teamsei.com
or call extension 999**





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