A QUARTERLY NEWSLETTER PUBLISHED BY NECA-IBEW

The Silicon Valley Wire

The latest news from the electrical industry in Silicon Valley 3rd Quarter 2022

Elcor Electric Provides Electrical Systems for New State-of-the-Art Apprenticeship Training Facility in Silicon Valley

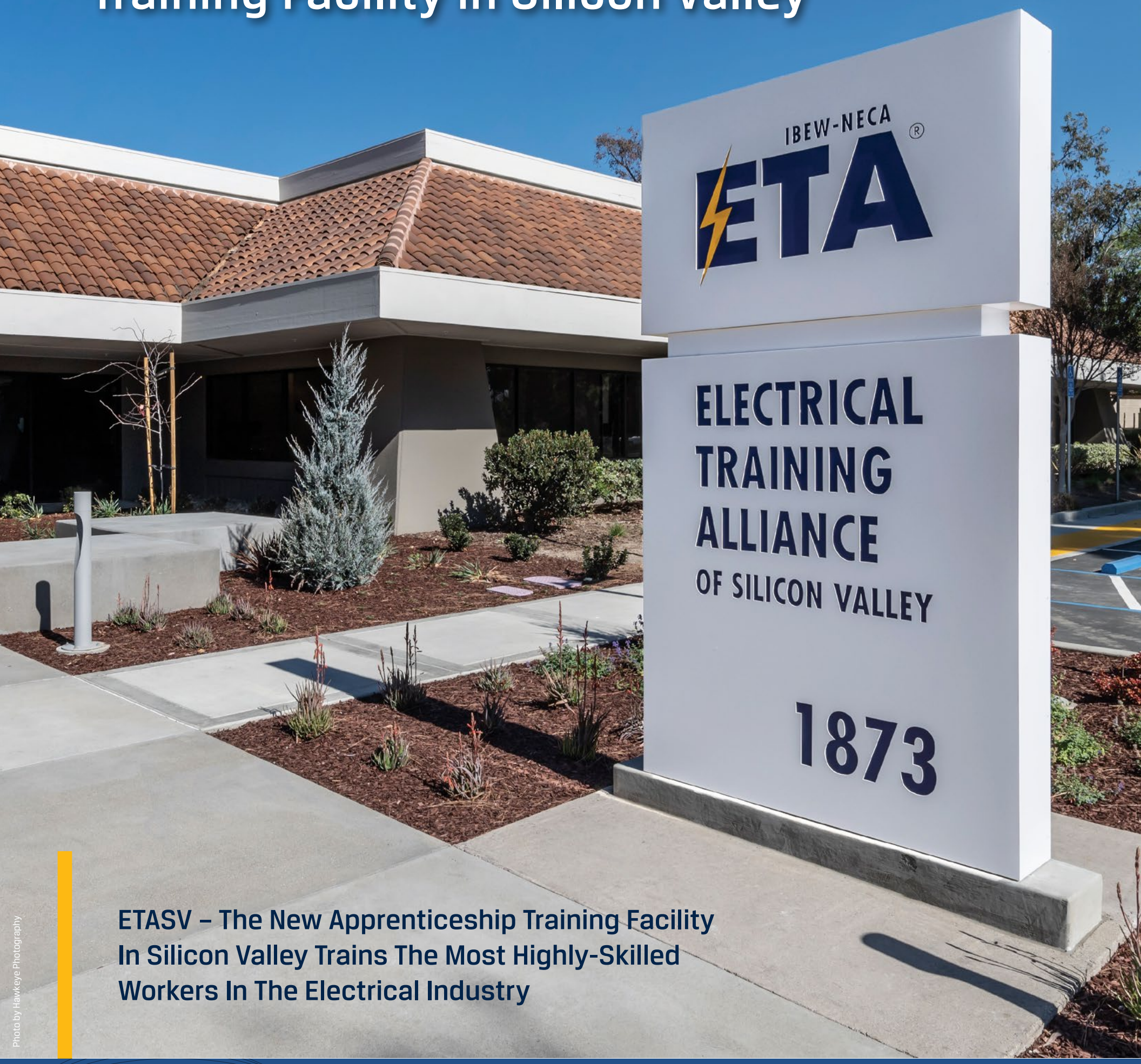

Photo by Hawkeye Photography

ETASV – The New Apprenticeship Training Facility In Silicon Valley Trains The Most Highly-Skilled Workers In The Electrical Industry

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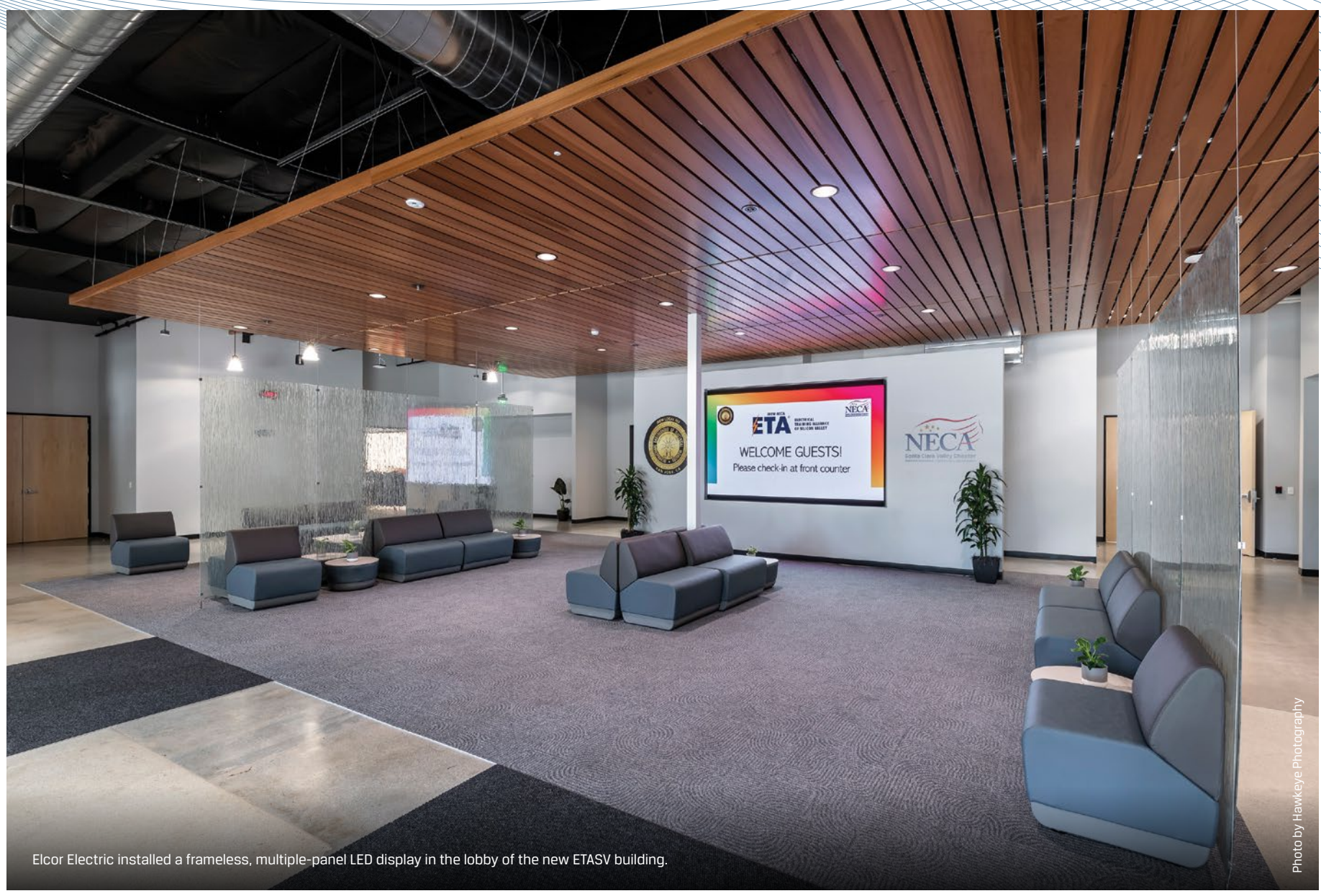


Elcor Electric installed a frameless, multiple-panel LED display in the lobby of the new ETASV building.

Photo by Hawkeye Photography

Elcor Electric Provides Electrical Systems for New State-of-the-Art Apprenticeship Training Facility in Silicon Valley

The proper training of electrical apprentices took a big step forward in Silicon Valley recently, thanks in part to the efforts of Elcor Electric, who replaced the electrical equipment within the ETASV, a newly renovated training facility in Milpitas.

At the new building, some 600 enrolled students are provided with high quality, hands-on instruction to become highly skilled and trained electricians.

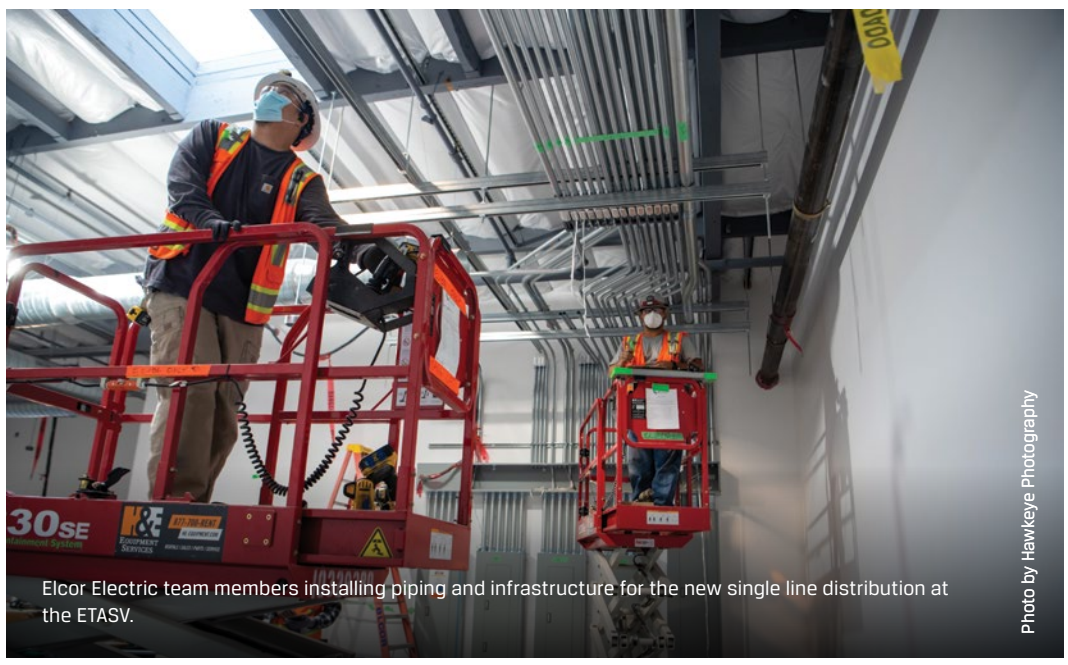
The ETASV (Electrical Training Alliance of Silicon Valley) serves the largest electrical apprenticeship in Northern California.

The facility is managed jointly by SCVNECA (The National Electrical Contractors Association of Santa Clara Valley) and IBEW (the International Brotherhood of Electrical Workers) Local 332 of San Jose.

Elcor's scope of work at the new 80,000 square foot training facility included replacement of the electrical distribution equipment and branch power, along with the installation of new lighting and lighting controls, site lighting, EV chargers and HVAC controls.

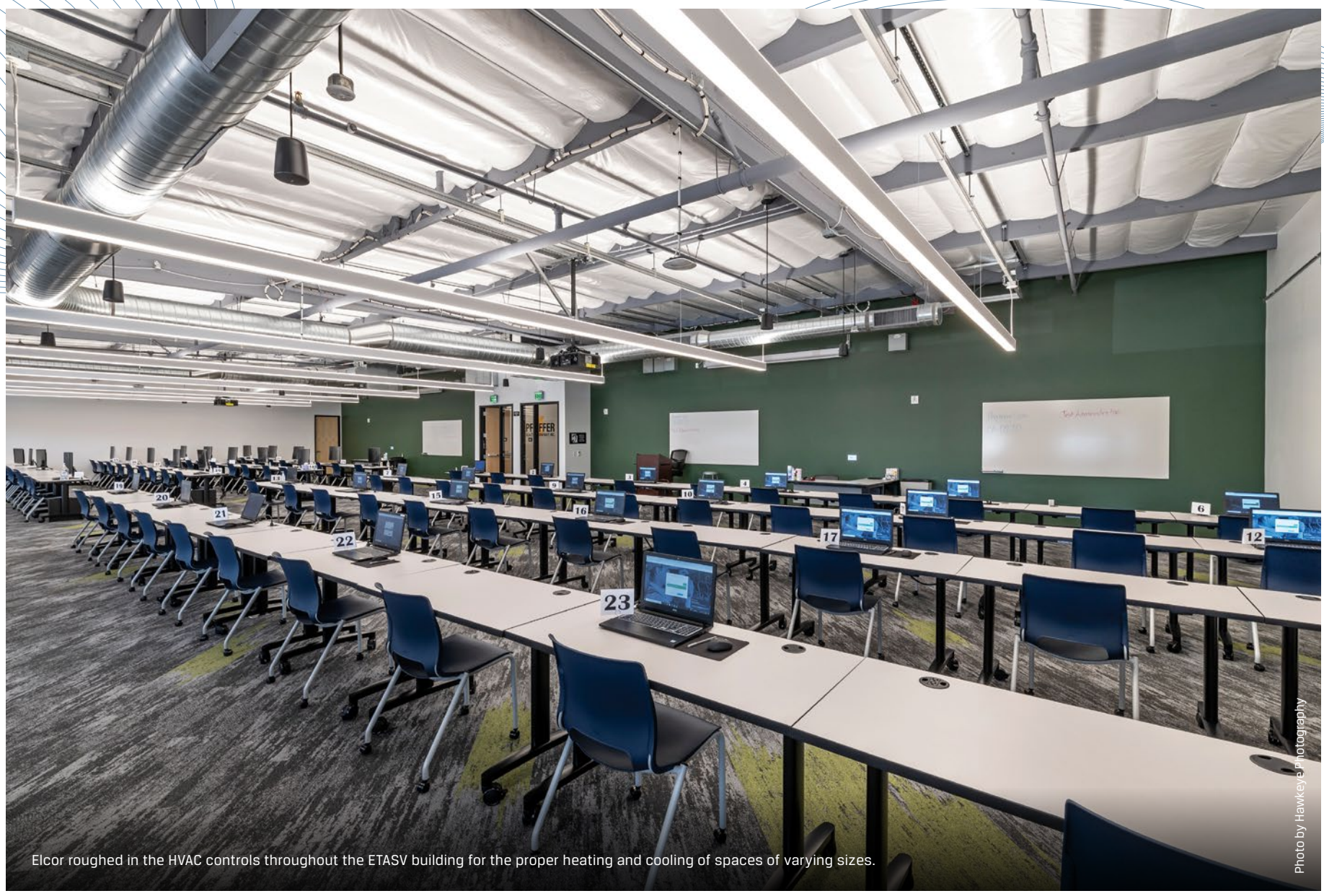
Elcor Wireman, Daniel Landeros, installing branch conduit for one of the distribution panels at the ETASV.

Photo by Hawkeye Photography



Elcor Electric team members installing piping and infrastructure for the new single line distribution at the ETASV.

Photo by Hawkeye Photography



Elcor roughed in the HVAC controls throughout the ETASV building for the proper heating and cooling of spaces of varying sizes.

Photo by Hawkeye Photography

Elcor Electric's installation at the training facility was design-build. It began in January 2021 and finished in December 2021.

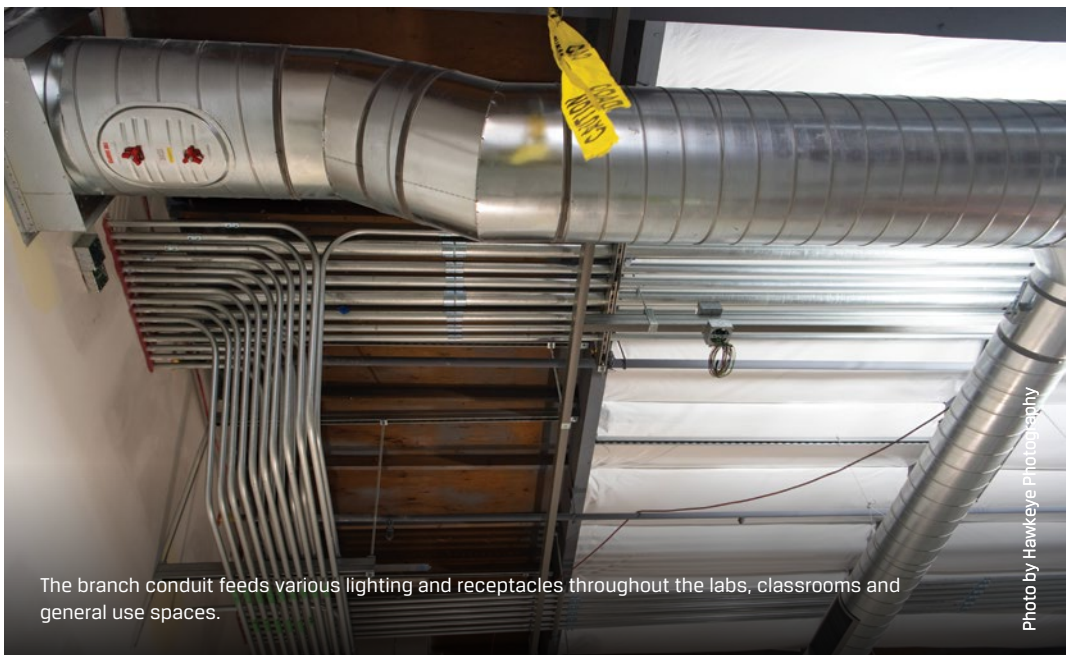
Some 30 electricians (plus apprentices) from Local 332 worked on the new facility. SC Builders was the General Contractor. Dennis Kobza & Associates was the architect.

At 80,000 square feet, the building is more than double the size of the former training facility and includes a number of new features, including 10 new labs for hands-on training, an auditorium, interview rooms and conference rooms, much larger classrooms, and a more expansive lobby with new technology. The technology includes state-of-the art displays for learning, frameless multiple panel LED displays in the auditorium and lobby, and a confined space training vault.

"It is very important to take pride and ownership in your work on any project," said Brad Hersom, Elcor Project Executive, "but, there was uniqueness to the challenge of having another electrician as your client. It was crucial that we not only met, but exceeded their expectations, and delivered a quality product."

Elcor added 15 foot LED light poles that operate with energy saving controls in the parking lot of ETASV.

Photo by Hawkeye Photography

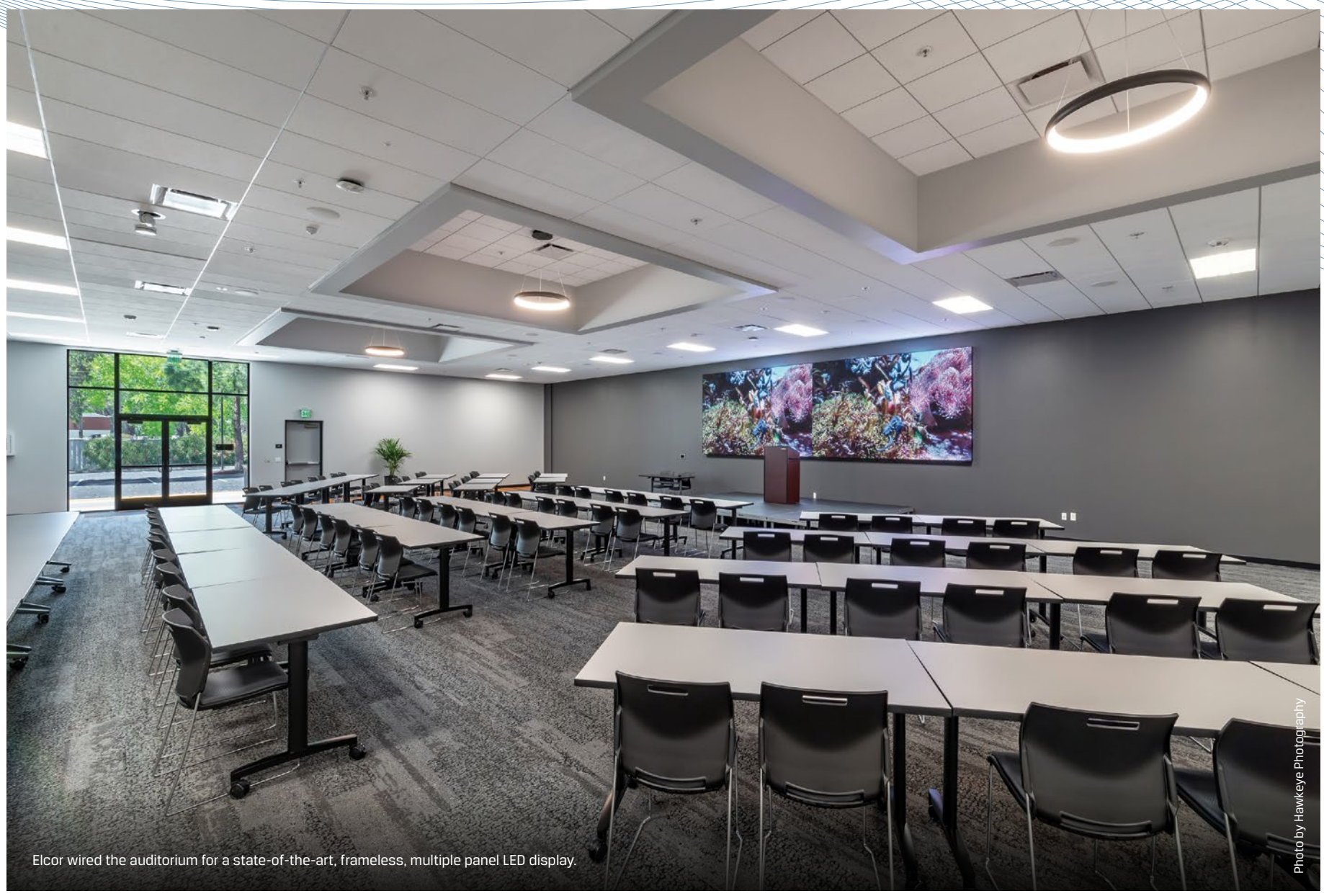


The branch conduit feeds various lighting and receptacles throughout the labs, classrooms and general use spaces.

Photo by Hawkeye Photography

Jerry Blake, Elcor 4th Year Apprentice, sets up for a wire pull to a branch panel at the ETASV.

Photo by Hawkeye Photography



Elcor wired the auditorium for a state-of-the-art, frameless, multiple panel LED display.

Photo by Hawkeye Photography

Elcor Electric's ETASV project team included (L to R): Mark Eva (Project Manager), Corey Palmer (General Foreman), Bradley Hersom (Project Executive) and Erik Berg (Superintendent)

Photo by Hawkeye Photography

ELECTRICAL TRAINING ALLIANCE OF SILICON VALLEY (ETASV) PROJECT TEAM

OWNER:
IBEW/NECA Trust. Managed jointly by SCVNECA (The National Electrical Contractors of Santa Clara Valley) and the IBEW (the International Brotherhood of Electrical Workers) Local 332, San Jose

ARCHITECT:
Dennis Kobza & Associates

GENERAL CONTRACTOR:
SC Builders

TRAINING DIRECTOR:
Robert Moreno

ELECTRICAL CONTRACTOR:
Elcor Electric
Bradley Hersom, Project Executive,
Mark Eva, Project Manager
Erik Berg, Superintendent
Corey Palmer, General Foreman
Anthony Castro and Jaime Quintero, Project Foreman

FIRE ALARM CONTRACTOR:
Integrated Communication Systems (ICS)
Amir Mohammadian, Fire Systems
Group Sales Manager

ELECTRICIANS AND TECHNICIANS:
30 electricians from the International Brotherhood of Electrical Workers (IBEW) Local 332, San Jose and many apprentices

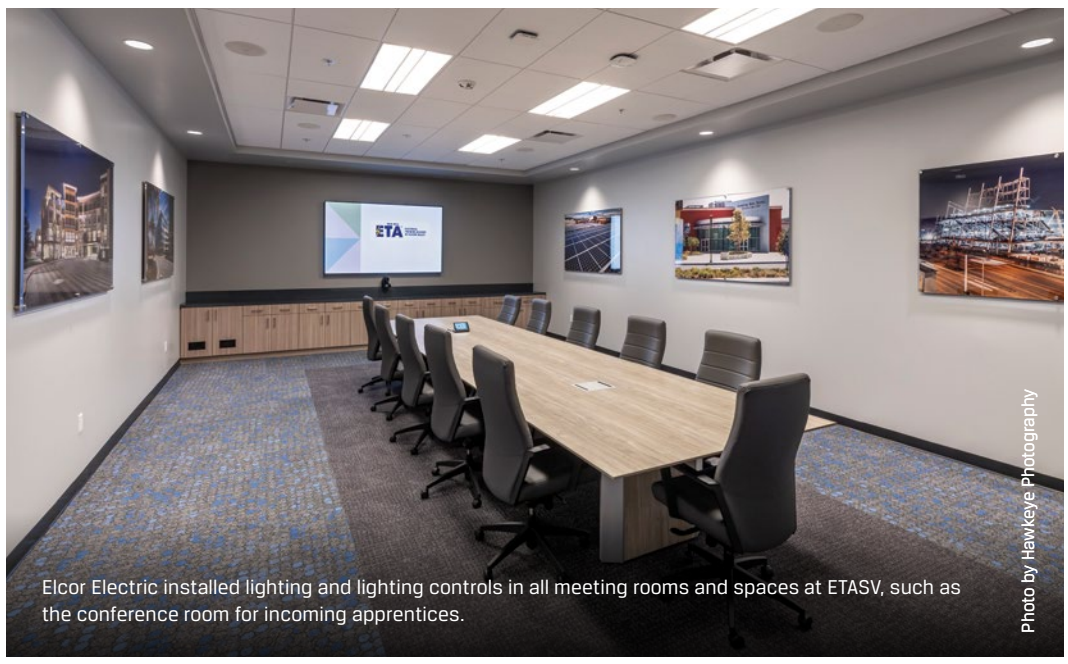
The electrical distribution equipment included a new main switchboard and updating of all the single line infrastructure downstream of it to the electrical rooms. Many of the labs received their own dedicated branch panels as part of the new distribution system.

Replacing the main switchgear triggered coordination with PG&E in terms of shutting the service down, disconnecting the secondary feeders at the existing switchgear and installing a new meter. Elcor Electric upgraded the branch power as well including all new circuiting and receptacles.

Elcor Electric also installed new lighting and lighting controls, including high efficiency Title-24 compliant LED lighting and a Wattstopper lighting control system that features individual zones.

New site lighting was installed in the parking lot and on the exterior of the building. Elcor added 15 foot LED light poles that operate with energy saving controls. The controls adjust the ambient light from dim to full. New bench lighting was also added to seating areas outside the lobby.

Elcor added six EV chargers to the back of the building for staff and students that have electrical vehicles. They also roughed-in the HVAC controls.



Elcor Electric installed lighting and lighting controls in all meeting rooms and spaces at ETASV, such as the conference room for incoming apprentices.

Photo by Hawkeye Photography

Elcor Electric installed new lighting and lighting controls throughout the ETASV and a Wattstopper lighting control system that features individual zones.

Photo by Hawkeye Photography

Elcor Electric subcontracted the fire alarm system (an Edwards T4) to Integrated Communication Systems (ICS), and provided all the power and pathways needed to install it throughout the building. ICS provided a turnkey, design-build system which included all cabling and devices.

One of the more unique labs that Elcor built out was the 200 sq. ft. confined space training vault. Extensive training is required on the importance of safely navigating a confined space such as a vault. These spaces have limited area for entry and exit, and electricians regularly have to access these spaces to perform their work. They must also be prepared for any possible safety or health hazards, such as hazardous gas accumulation or constant air exchange which can occur. In case of emergency, a tripod recovery system is also required at the entrance to the vault.

"We are proud that this cutting-edge training center will provide hands-on learning opportunities for years to come," said General Foreman, Corey Palmer. "This industry is ever-changing, and we are excited that our local apprentices will receive the opportunity to learn the industry's best practices first-hand."

For more information about Elcor Electric, contact info@elcorelectric.com.

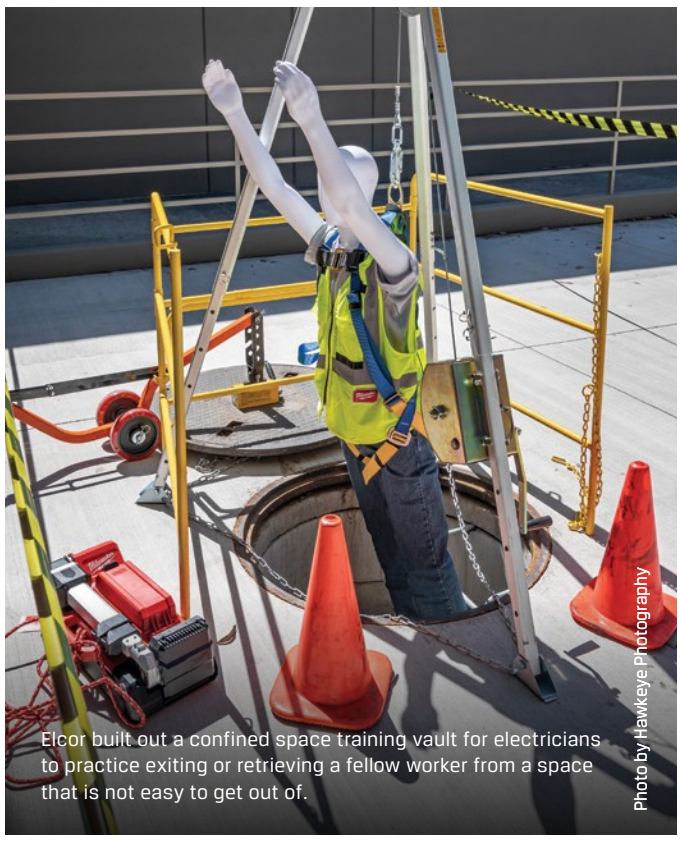

Elcor built out a confined space training vault for electricians to practice exiting or retrieving a fellow worker from a space that is not easy to get out of.

Photo by Hawkeye Photography

Elcor Electric subcontracted the fire alarm system to Integrated Communication Systems (ICS), and provided all the power and pathways needed to install it throughout the ETASV building.

Photo by Hawkeye Photography

Students at the ETASV working in the lighting control lab, installed by Elcor Electric.

Photo by Hawkeye Photography

Robert Moreno is the training director for the ETASV in Milpitas, which is managed jointly by SVNECA and IBEW Local 332.

Photo by ETASV

ETASV - The New Apprenticeship Training Facility In Silicon Valley Trains The Most Highly-Skilled Workers In The Electrical Industry

ETASV, the new Electrical Training Alliance of Silicon Valley, is the largest electrical training center in Northern California. The Milpitas facility is managed jointly by SCVNECA (The National Electrical Contractors Association of Santa Clara Valley) and IBEW (the International Brotherhood of Electrical Workers) Local 332 of San Jose. Robert Moreno serves as the training director.

"We have some of the largest contractors in the nation in our local," said Moreno "so the focus on training is extremely important. These companies have grown huge and become very profitable. So for us it's a huge responsibility to maintain that level. We produce the best prepared electrical workers in the industry."

We asked Robert to answer questions about the curriculum and how the facility works:

What are the categories of electricians you train?

All inside wiremen, both residential apprentices and commercial apprentices. We have 503 students in the commercial category and 110 students in the residential category.

How many instructors do you have?

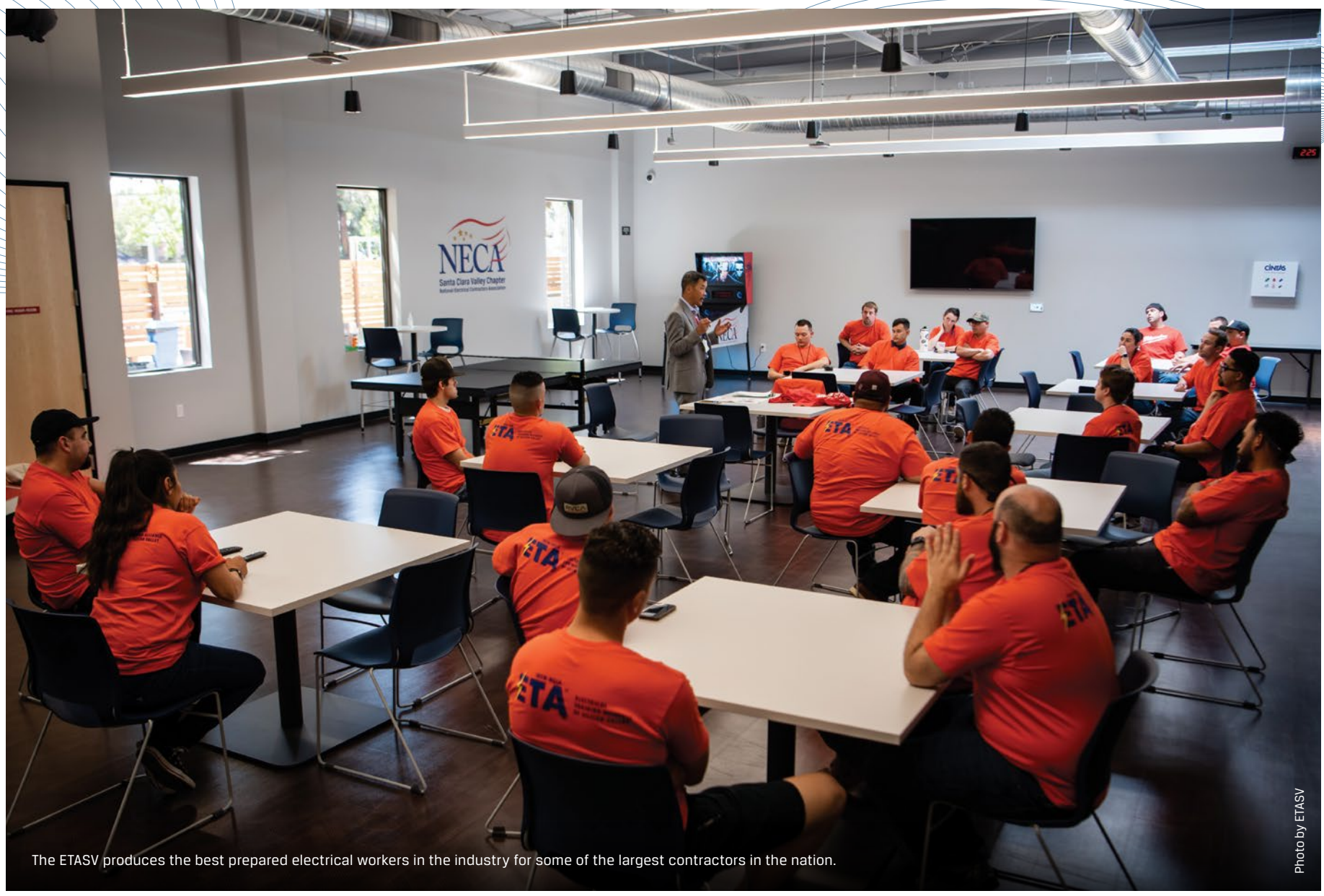
About 30

What is in the curriculum?

We offer classes in code, electrical theory blueprint reading, and form and development. We offer around 10 labs for hands-on training, including conduit bending, motor controls, HVAC controls, fire alarm, lighting, and a number of safety labs, including: confined space lab, rigging lab, how to use a harness lab, electrical safety lab, fall protection lab, LOTO (lockout/tag out) lab, OSHA 10 and OSHA 30 lab, and NFPA 70E lab.

Do you use the lecture method?

Since everyone learns differently, we use blended learning, which helps us reach every type of learner. Not everyone learns well with just a lecture. Blended learning is a method of teaching that combines different methods of delivering the lesson including lecture, online learning, videos, a white board, etc. The computer based Learning Management System is an important part of the blended learning. The hands-on is probably the most important part to us.



The ETASV produces the best prepared electrical workers in the industry for some of the largest contractors in the nation.

Photo by ETASV

What is an industry partner? How do you use them?

Industry partners are those companies that are supportive in our training. Milwaukee Tools, for example, donated over $200,000 in brand new tools through a tool exchange program. The program allowed us to exchange old tools of any condition or brand, for brand new Milwaukee tools. 3M, another industry partner, is supplying us with material for cable splicing that can be used for ongoing training.

When did the new training facility open?

We had our ribbon cutting May, 2022.

How is the new program and facility different from the old facility?

The old facility was much smaller (30,000 square feet as compared to 80,000 square feet) and offered fewer labs. The computer based Learning Management System is new and different from the old system. What would have formerly been a physical test is now on-line—they don't have as many books as they used to. Along with that, the LMS has embedded videos to assist the learner to see some of the applications like electrical theory, magnetism, AC theory, DC theory, etc. The training partners are new. There are more labs now, and an opportunity to get in there 5 or 6 times a semester. I started my apprenticeship in 1990. I think the whole five years I went to the lab probably 4 or 5 times at the old facility. So there are a lot more opportunities for labs now. The new program is larger, more modern, and it's evolved with the industry technologically. We've kept up with technology so that apprentices are prepared for what contractors are using in the field. The hands-on portion is very important, like the labs. That's the students' favorite. It's probably the most important part and probably the most important feature of the school—and the biggest change from the former training facility.

What kind of career can an apprentice who goes through your program expect?

They can be a journey worker, foreman, general foreman, superintendent, project manager, and inspector. Many go on to open their own shop.

How do you get admitted to the program?

The minimum qualifications are on the website. You need a high school diploma with one year of algebra with a C grade or better and you must be able to follow instructions in English. The applications are online as well, and they are open the first week of every month. The next step is a test that includes reading, and math comprehension, and then an interview with labor and management. Once those items have been completed, you receive a score and are put on a ranking list.

How would you describe the students?

The students are by and large, highly motivated and quickly find out that they're competing not with each other but with themselves. They are constantly striving to do better and be better. They are a highly motivated, elite group. What is so important is the cooperation between labor and management to get this done. They recognized the need for a new training center and to provide quality training for the apprentices. They are the future of the industry. This would never have gotten done if it weren't for the level of understanding between labor and management.

The new ETASV building features an advanced lab for conduit bending, the math-intensive aspect of electrical work to which much time is dedicated.

Photo by Hawkeye Photography

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The ETASV features a fire alarm lab where apprentices can learn the infrastructure and installation of fire alarm systems in a hands-on way.

Photo by ETASV