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THE VOICE

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LATEST SOUND & COMMUNICATIONS TECHNOLOGY NEWS

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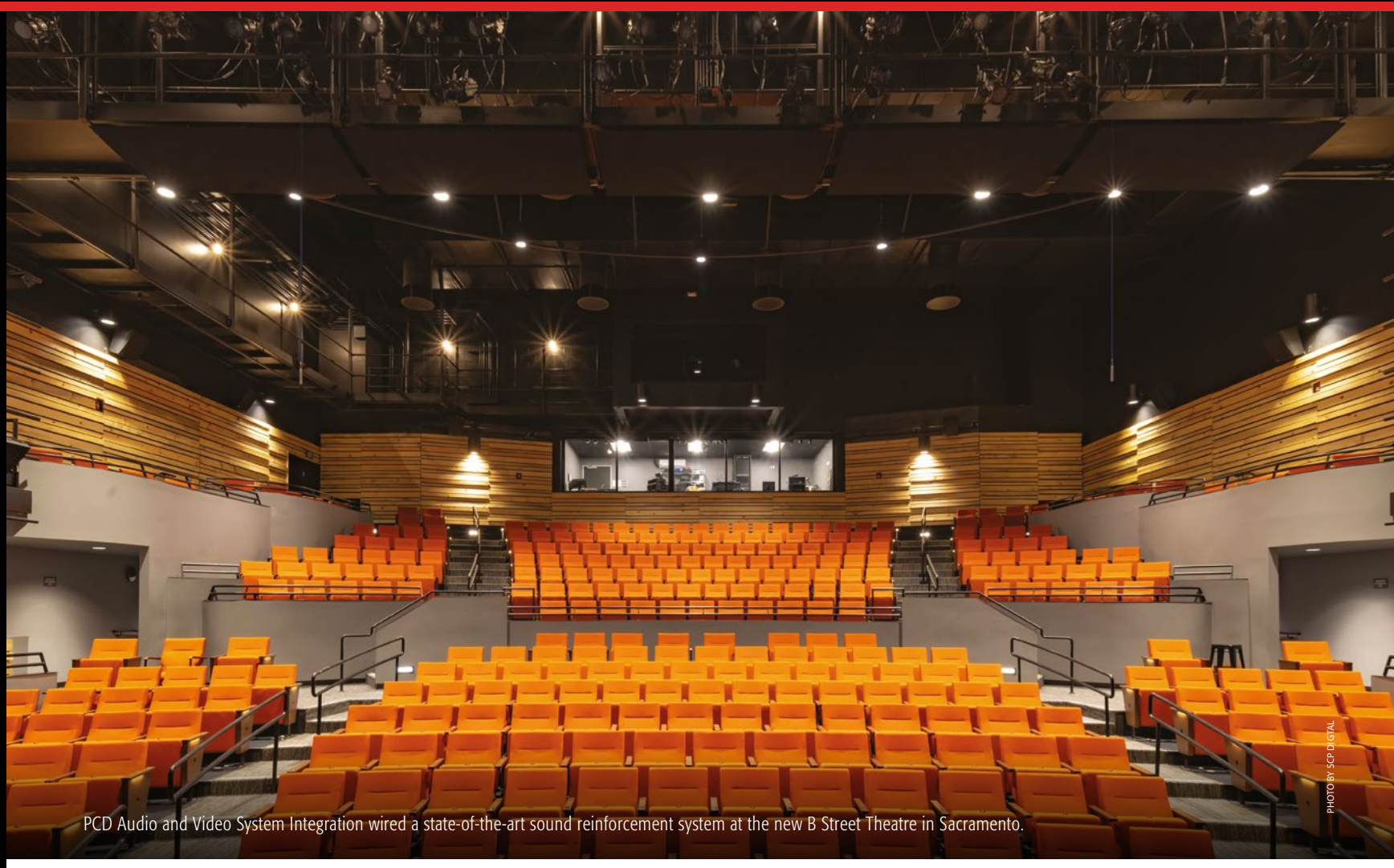

PCD Audio and Video System Integration wired a state-of-the-art sound reinforcement system at the new B Street Theatre in Sacramento.

PHOTO BY SCP DIGITAL

'There's Magic In This Room!'

PCD Wires AV Systems for The Sofia, Home of The B Street Theatre

The Sofia, home of the newly constructed B Street Theatre in Sacramento, is wired with a state-of-the-art sound reinforcement system, thanks in part to the work of PCD Audio and Video System Integration, a NECA-IBEW union contractor headquartered in Santa Rosa.

PCD's sound system installation has earned enthusiastic accolades from the theatre's in-house producer. "This isn't a building people inhabit," says Jerry Montoya, B Street Theatre's executive producer. "The building itself is an instrument and the audience is truly given a transcendent experience. There's real artistry in the delivery of the sound system. PCD was part of building something extraordinary."

In addition to installing the theatre's state-of-the-art sound reinforcement system, PCD wired all the equipment in the control rooms, the paging system, signal processing, projectors, and the digital signage in the lobby.

PHOTO BY SCP DIGITAL

PCD wired all the equipment in the control rooms, the paging system, signal processing, projectors, and the digital signage in the lobby.

PCD worked with a talented team on the project, including The Shalleck Collaborative, the theatre consultant who designed and specified the audio video systems, and Meyer Sound Laboratories, who designed the sound reinforcement system. The acoustician was Charles Salter Associates. The general contractor was MarketOne Builders. The theatre opened in 2018.

The 48,000 square foot building, known as the Sofia Tsakopoulos Center for the Arts, houses two theatres: a 250-seat Thrust Theatre (home to contemporary American theatre productions) and the 365-seat Proscenium style Sutter Theatre (used as a children's theatre and for concerts). The building also has three rehearsal rooms, a conference room, and a lobby. An adjacent café is next door.

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A publication of the National Electrical Contractors Association (NECA) and the International Brotherhood of Electrical Workers (IBEW) of Northern California.

PHOTO BY SCP DIGITAL

Intrepid Electronic Systems engineered and installed the new voice evacuation fire alarm system at the historic Alameda High School.

Intrepid Electronic Systems Updates Fire And Voice Evacuation System At Historic Alameda High School

PHOTO BY SCP DIGITAL

Intrepid's work included building the main fire alarm panel and sub panels.

Intrepid Electronic Systems has engineered and installed a new voice evacuation fire alarm system for three buildings at the historic Alameda High School, which reopened in August this year after being closed since 2013.

Intrepid's work is part of a $60 million restoration and modernization at the site, which dates to 1924. Intrepid's work also included interfacing with an older fire alarm panel in several other buildings, including the theater and the original (Patton) gym.

Some 1,786 students now attend the school, which was placed on the national register of historic places in 1977; it last held classes in 1978, and the main building has since served a number of uses, including as a library, adult school and administrative offices. The site closed in 2013 amid concerns for seismic safety.

Intrepid Electric, an IBEW-NECA contractor, installed the replacement voice evacuation fire alarm system in three buildings, the Central building, the Science building and the new gym.

Intrepid's work included wiring the buildings, installing all the devices, building all the main fire alarm panels and sub panels and testing the system. "The building was built almost a hundred years ago, which created installation challenges, especially getting wiring to field devices," said Intrepid foreman Spiro Sarlis.

The retrofit and restoration, designed by Quattrocchi Kwok Architects, was paid for primarily from the 2014 Measure I Facilities Bond. "The goal of the project was to restore and preserve the 1920's architecture while creating 21st century learning environments," said Mark Quattrocchi, who led the design team.

The project, which began in 2017, included extensive seismic retrofits, and restoration

of much of the façade of the Neoclassical revival style building. Modernization included 45 new state-of-the-art classrooms, 10 new science labs, and an infusion of technology. Pacific Metro Electric, the electrical contractor, rewired the electrical infrastructure throughout the three buildings.

Intrepid chose a Honeywell Notifier 3030 (NFS2-3030) panel for the new voice evacuation fire alarm system. According to foreman Sarlis, the NFS2-3030 is "a top panel that can be upgraded and can easily integrate with other changes in the future."

Intrepid installed 450 smoke detectors on the ceiling throughout the Central building and Science building and an additional 10 smoke detectors in the new gym. The smoke detectors and other devices are found scattered throughout the classrooms, bathrooms, hallways, storage rooms, IT closets, etc.

Intrepid also installed heat detectors on the ceiling as well as above the ceiling; they wired duct detectors to monitor the HVAC air handler systems. Intrepid completed all wiring through one-inch orange smurf tubes, not through metal conduit. The smurf tube was an adaptation to accommodate the building's age; it runs above the ceiling in the corridors and classrooms, as well as above other pertinent areas.

PHOTO BY SCP DIGITAL

Modernization of the Alameda High School included 10 science labs; each lab has new smoke alarms, and speaker/strobes.

PHOTO BY SCP DIGITAL

The main fire alarm panel is located in the administration area in the Central building, and controls all of the voice evacuation and fire alarm systems.

"Pulling wire through the Smurf tubes isn't as simple as pulling wires through a rigid conduit," said Sarlis, a member of International Brotherhood of Electrical Workers (IBEW) Local 595.

Intrepid programmed the voice evacuation system through wiring a digital voice system subpanel (DVS). The DVS includes a speaker and a strobe that will notify students and staff with a voice message if there is a fire alarm in the building. The voice evacuation devices are also installed on the ceiling throughout the building.

The main fire alarm panel is located in the administration area in the Central building, and controls all of the voice evacuation and fire alarm systems in the Central building and Science building. A second panel in the new gym monitors that area and is networked with the main fire alarm panel in the Central building. It has a voice evacuation system that enunciates for the gym if there is an incident.

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PHOTO BY SCP DIGITAL

Intrepid chose a Honeywell Notifier 3030 (NFS2-3030) panel for the new voice evacuation fire alarm system.

PCD Wires AV Systems For S

Two Theatres Showcased In The Sofia Tsakopoulos Center for the Arts

PCD installed Meyer Sound Laboratories UPQ-2P coverage loudspeakers.

Backstage, PCD installed video monitors and speakers, as well as a paging system so the actors can hear their cues.

PCD installed Meyer Sound subwoofer speakers in both theatres.

PCD installed speakers in clusters at the front of the stage, along with overhead speakers.

365-Seat Sutter Theatre

ILLUSTRATION BY PAICHING WEI | PHOTOS BY SCP DIGITAL

acramento's B Street Theatre

250-Seat Thrust Theatre

PCD installed all the AV equipment in the control rooms for each theatre.

PCD installed BrightSign digital signage paired with a Samsung 65" TV in six locations around the lobby.

PCD installed all the AV equipment in the control rooms for each theatre and shared amp room.

PCD installed a 64 channel Yamaha mixing console, a wireless microphone and program paging system, and a digital signal processing system in the theatre's control rooms.

PHOTO BY SCP DIGITAL

The state-of-the-art sound reinforcement system, installed by PCD, is designed by Meyer Sound Laboratories of Berkeley.

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The theatre was built as a community effort. Sutter Health donated the land for the building. Several private donors made major contributions to the project, including the Tsakopoulos family, well known for their philanthropy in the Sacramento area. The theatre is named after Sofia Tsakopoulos. Additional funds were raised from the City of Sacramento and the California Infrastructure and Economic Development Bank.

The state-of-the-art sound reinforcement system, installed by PCD, is designed by Meyer Sound Laboratories of Berkeley. Inside the Sutter Theatre, PCD deployed six UPQ-2P coverage loudspeakers, 4 stage monitors, two compact low-frequency control elements, 12 surround loudspeakers, nine ultracompact loudspeakers, three power supplies and a Galileo 616 for network processing. PCD installed speakers in clusters at the front of the stage, along with overhead speakers. Subwoofer speakers are located underneath the stage.

In the smaller Thrust Theatre, PCD installed 12 HMS-10 loudspeakers, three compact coverage loudspeakers, three UP Junior ultracompact loudspeakers, one RM server, two MPS-488HP power supplies, and a Galileo 616.

PCD's field staff consists of technicians from various Bay Area Locals of the International Brotherhood of Electrical Workers (IBEW) union.

PCD installed all the AV equipment in the control rooms for each theatre; the control rooms share an amp room. Jim Jones, PCD project manager, said the control rooms each contain a 64-channel Yamaha mixing console, a wireless microphone and program paging system, Crestron control systems, Digital Projection projectors, and a digital signal processing system. The control room can reinforce audio events requiring live operation and offers automatic mixing for events that do not require a live operator.

PHOTO BY SCP DIGITAL

PCD installed Anvil Racks in each of the 3 rehearsal rooms. The racks contain an amplifier, mini mixing console, Whirlwind mixer and a Denon Pro CD player.

PHOTO BY SCP DIGITAL

PCD installed Digital Projection projectors for use throughout the theatre.

PHOTO BY SCP DIGITAL

PCD installed a 64-channel Yamaha mixing console, a wireless microphone and program paging system, and a digital signal processing system in the theatre's control rooms.

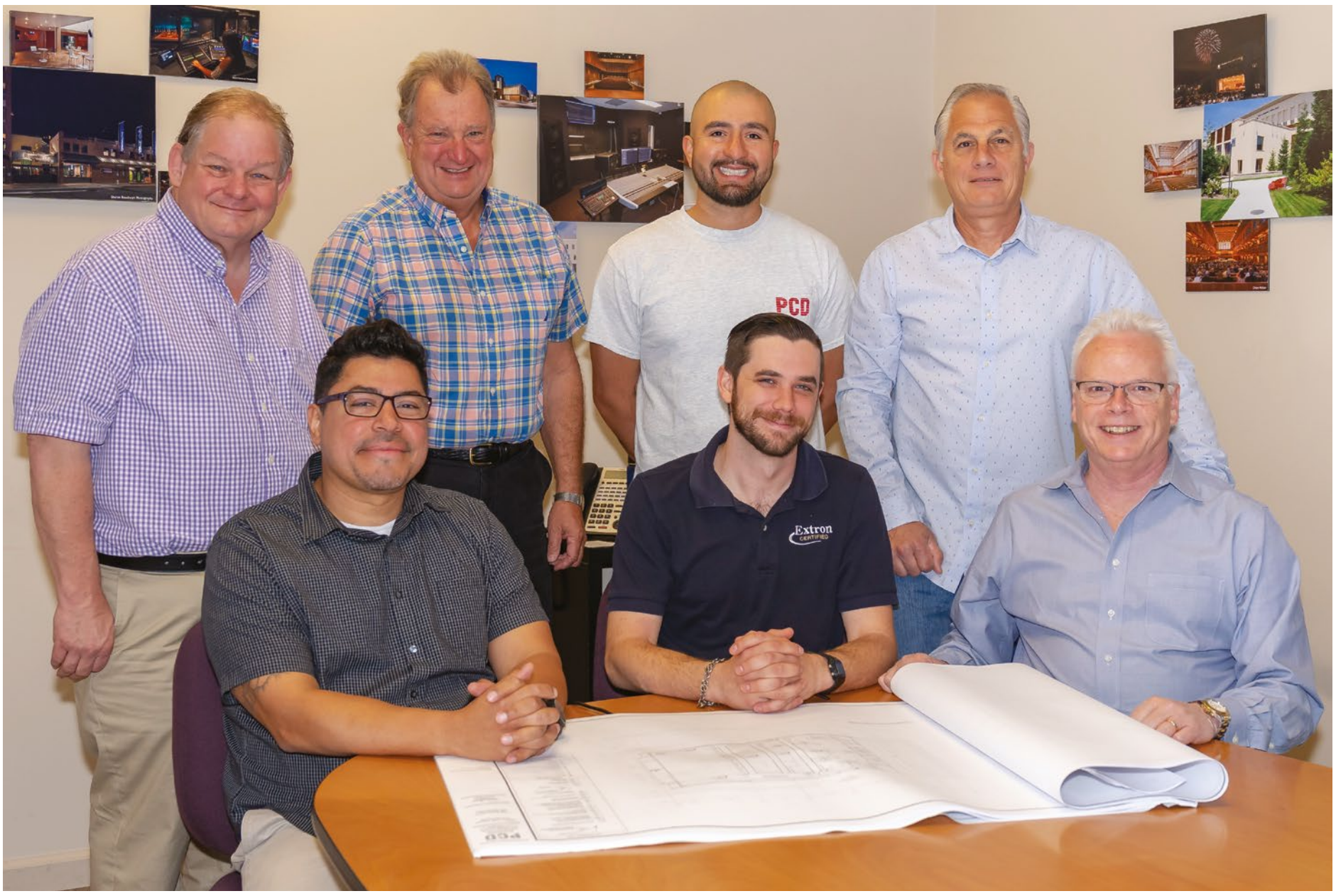

PHOTO BY SCP DIGITAL

PCD Project Team: back row: Jim Jones, Project Manager; Henry Beaumont, President & CEO; Daniel Villagomez, Senior Installer; John Rudolph, VP & General Manager; **front row:** Christian Velasquez, Estimator & Contract Manager; Matt Roncarati, CTS-I, Senior Technician; Gordon Barnes, Project Design Engineer

PCD installed a sound board that runs the performances and a physical rack that houses all the digital signal processing and controls for the various devices in the theatre. PCD also installed an Apple Mac Mini for playback; it runs QLab, a theatre specific software.

Backstage, PCD installed video monitors and speakers in the dressing room, so the actors can hear their cues. The paging system is also located back stage.

PCD installed an Anvil Rack in each of 3 rehearsal rooms, including a hard case rolling tour rack that contains an amplifier and mini mixing console. The Anvil cases are rolled into the room and hooked up to portable speakers plugged into wall plates. They also installed Whirlwind mixers, an audio mixer for smaller rooms, along with a Denon Pro CD player which is hooked up through Bluetooth.

In the lobby PCD installed BrightSign digital signage paired with a Samsung 65" TV in six locations around the lobby so that late-comers can see what's on the stage. They also installed a late arrival live video system so that late comers not allowed in the theatre can watch the performance and hear it. They installed overhead speakers in the lobby for paging and preprogrammed music, plus chimes to let theatregoers know it's time to get to their seats.

Ian Hunter, the AV Manager for The Shalleck Collaborative said PCD helped make the theatre more performance friendly. "Our real job is to make sure the audience and the performer can be as connected as possible, to make it feel like every person in that theatre is on the stage with the performer. I think we accomplished that at the B Street Theatre."

For more information about PCD Audio and Video System Integration and its audio video services, contact John Rudolph, Vice President (jrudolph@pcdinc.net) or call 707-546-3633.

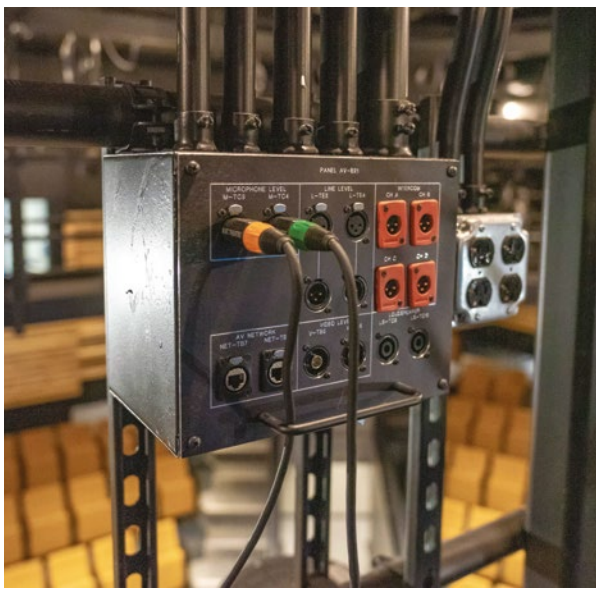

PHOTO BY SCP DIGITAL

PCD installed patch panels throughout the theatres to reinforce the new sound system.

PCD Team List
The Sofia, B Street Theatre

B STREET THEATRE REPRESENTATIVE:
Jerry Montoya, Executive Producer

ARCHITECT:
Vrilakas Groen Architects

GENERAL CONTRACTOR:
MarketOne Builders
Brooke Higman, Senior Project Manager

THEATRE AND AV CONSULTANT:
The Shalleck Collaborative
Adam Shalleck, Principal-in-Charge
Bruce Veenstra, Project Manager
Ian Hunter, AV Designer
Scott Krenzke, System Designer

ACOUSTICIAN:
Charles M. Salter Associates Inc.

SOUND REINFORCEMENT SYSTEMS:
Meyer Sound Laboratories Inc.

AV CONTRACTOR:
PCD Audio and Video System Integration
Jim Jones, Project Manager
Christian Velasquez, Estimator
Matt Roncarati, CTS-I, Senior Technician
Daniel Villagomez, Senior Installer

INSTALLER TECHNICIANS:
PCD's field staff consists of technicians from various Bay Area Locals of the International Brotherhood of Electrical Workers (IBEW) union.

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PHOTO BY SCP DIGITAL

The Intrepid fire alarm systems team includes (left to right): Spiro Sarlis, Foreman; Chris Rathjen, Apprentice; Steven Zimmerman, Safety Director; Mark Gipner, Apprentice; Michael Walden, Senior Technician (not pictured); Steve Cresta, Project Manager (not pictured), Jerry Sarlis, Installer (not pictured)

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The theater and old gym are monitored by the old fire system, which includes horns and strobes that are used to notify students and staff if there is an incident. The old fire system is now monitored by the new main fire alarm panel.

Although Intrepid began the project in 2017, much of their work was compressed into the last 3-4 months of construction, as they waited for other contractors to finish different areas of the project. They also integrated the voice evacuation and fire alarm system into many other systems, including the HVAC, the elevator and the fire sprinkler system.

Five technicians worked on the project from IBEW Local 595 and Local 332, including Spiro Sarlis, Jerry Sarlis and Michael Walden, Senior Technician programmer, all from IBEW Local 595, and Chris Rathjen from IBEW Local 332 and Mark Gipner from Local 302.

Intrepid Electronic Systems, Inc. is located in Crockett and San Jose, and provides low voltage electronic systems such as fire alarm, security and life safety. CEO Kurt Brinkman can be reached at Kurt@intrepidelectronic.com or 888.826.3040. www.intrepidelectronics.com

Intrepid Electronic Systems Team List
Alameda High School

MANAGEMENT:
Alameda Unified School District, Alameda

ARCHITECT:
Quattrocchi Kwok Architects, Santa Rosa

GENERAL CONTRACTOR:
Lathrop Construction Associates Inc., Benicia

ELECTRICAL CONTRACTOR:
Pacific Metro Electric Inc., Stockton

ELECTRICAL ENGINEER:
O'Mahony & Myer, San Rafael

FIRE ALARM SYSTEMS:
Intrepid Electronic Systems, Crockett
Steve Cresta, Project Manager
Spiro Sarlis, Foreman, IBEW Local 595

INSTALLER TECHNICIANS:
Michael Walden, IBEW Local 595
Jerry Sarlis, IBEW Local 595
Chris Rathjen, IBEW Local 332
Mark Gipner, IBEW Local 302