

# PCD Audio & Video System Integration Completes Work for Two New High School Theaters in Novato and Daly City

It's lights, camera, action and applause to celebrate PCD's AV work at two new high school theaters in the Bay Area--Novato High School and Westmoor High School in Daly City. PCD's AV budget for the projects was over \$1.6 million.

PCD's Bill Graham was director of operations for both projects; Christian Velasquez was the project manager for both. Eleven technicians from the International Brotherhood of Electrical Workers (IBEW) Local 551 helped to install the project at Novato High School. Fourteen technicians for IBEW Local 551 worked on the Westmoor High School project.

The Novato High School Theater, located in the school's new 18,000 sq. feet performing arts center, has 498 seats. The theater has 3 levels, with a main

stage first level; a second level that houses the control room, and a third level catwalk. The theater also contains two seating levels, gallery space, classroom/greenroom spaces, dressing rooms, and a gala entry hall. The Shalleck Collaborative in Berkeley served as the theater and AV consultant. The AV project began in June of 2020 and was recently completed.

During the same project, PCD also worked on AV for the new 15,000 square foot Novato High School Center for the Sciences building, constructed some distance from the theater across the Novato campus. The new science building is home to the chemistry, biology, sciences, engineering and physics departments.



PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD installed panels on all four corners of the backstage area for AV access directly to the control room and PA.



PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD installed a backstage AV rack with a video monitor featuring an audience view of the stage.

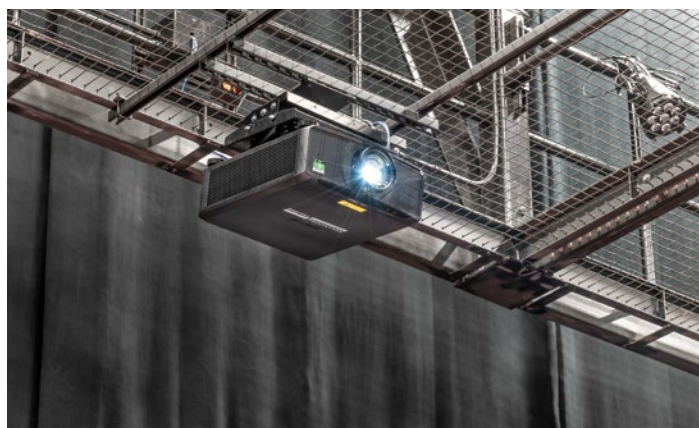


PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD routed the AV from the stage to the third-level catwalk and onward to the control room at the rear of the theater.

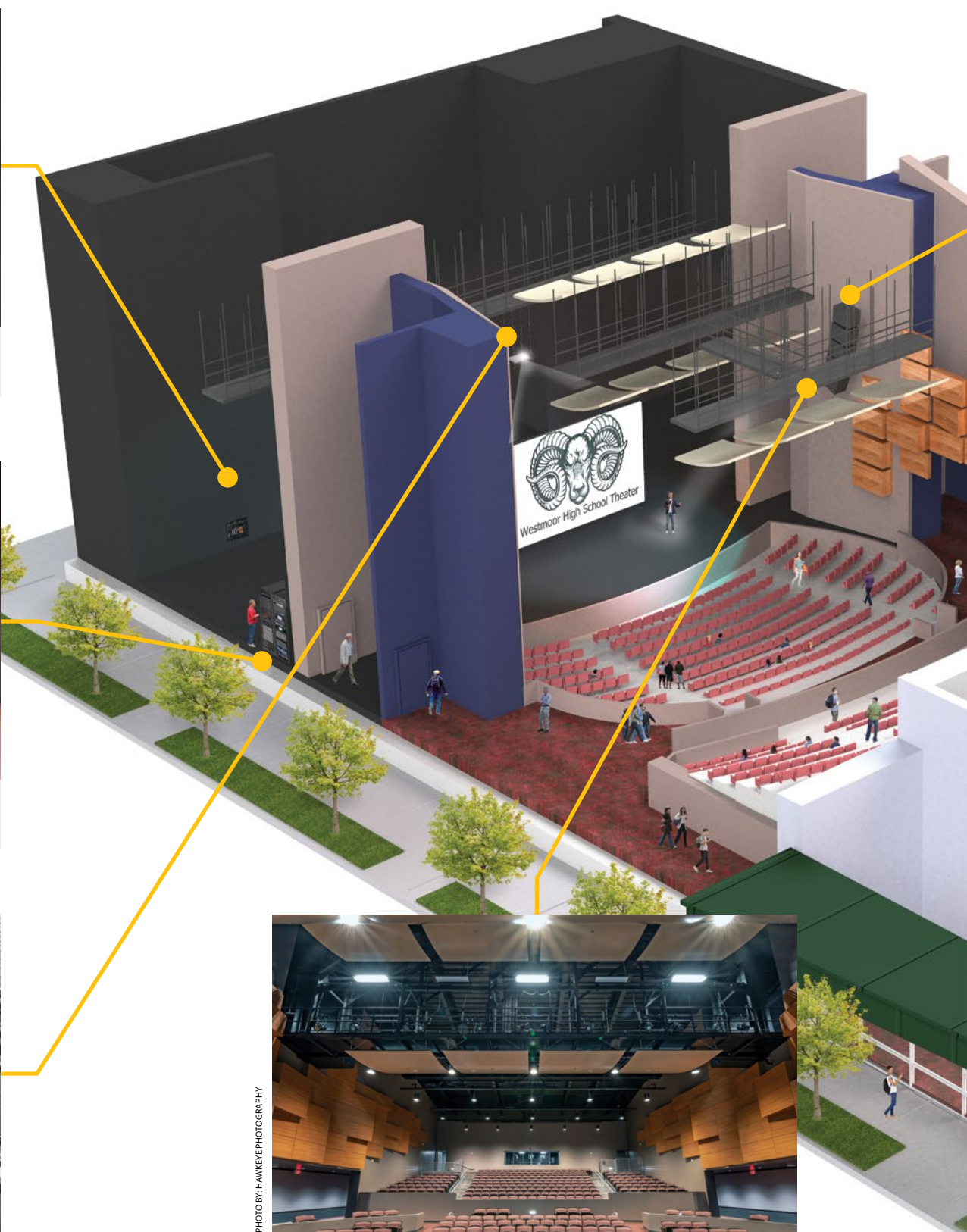


PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD routed the AV from the stage to the third-level catwalk and onward to the control room at the rear of the theater.

For the Novato High School Theater, PCD installed a sound system designed by Meyer Sound and The Shalleck Collaborative. The installation included main left/right speakers and a center subwoofer array, balcony delay speakers and six front fill speakers, assuring full sound from any seat in the house.

PCD also installed a digital projection screen on the first level of the Novato High Theater (Digital Projection M-Vision 21000-lumen laser projection with a Da Lite 307" diagonal screen.) The screen, which is motorized above the stage, works in conjunction with a projector mounted in the control booth. The screen measures 20 feet wide by 13 to 15 feet high.

PCD also installed control racks and a Yamaha QL5 mixing console in the back of the house, along with a Creston control system. They also installed signal processing with a Clear-Com production intercom in the dressing rooms and green rooms. PCD installed digital signage in the lobbies and distributed audio throughout the building.



PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD began the AV installation and integration of the new 470-seat Westmoor High School Theater in 2020.

At Novato High School, PCD also worked on the AV for the new 42,000 sq. ft. Center for the Sciences, which has ten new science classrooms and new labs. They installed FrontRow systems in each of the 10 classrooms in the science building. The FrontRow system is a sound projection/enhancement system for teachers. Each teacher has a microphone around the neck, connected to a sensor in the

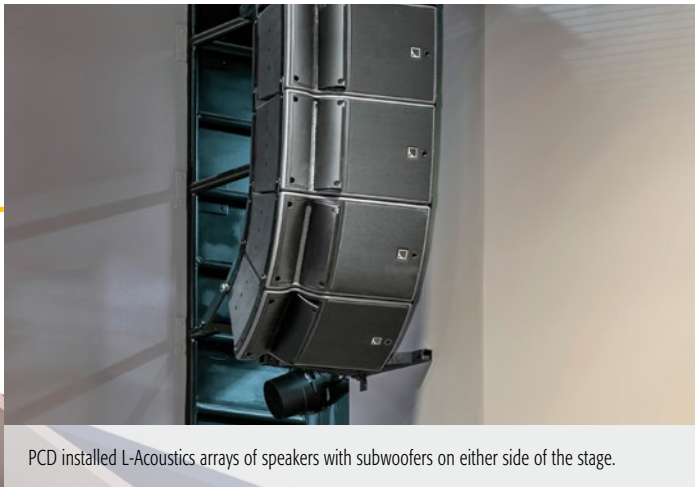


PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD installed L-Acoustics arrays of speakers with subwoofers on either side of the stage.



PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD installed a QL-5 Yamaha mixing console in the control room.



ILLUSTRATED BY PAI WEI



PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD installed an AV rack to control everything from the loudspeaker sound mix to the assisted listening devices

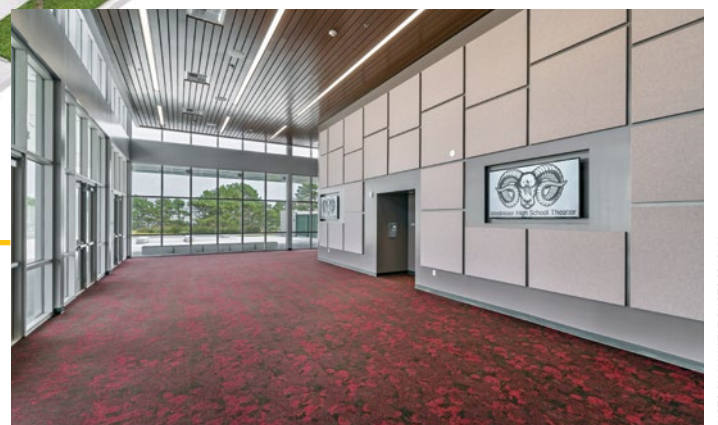


PHOTO BY: HAWKEYE PHOTOGRAPHY

PCD installed video monitors and distributed audio in the lobby of the Westmoor Theater.

PHOTO BY: HAWKEYE PHOTOGRAPHY



PCD installed a 20-foot wide Draper screen with a rear projector on the stage of the Westmoor Theater.

ceiling. Voices are amplified through the ceiling-mounted speakers. PCD also installed donor-provided TVs and the control panels to turn the TV on and off or the volume up and down.

PCD began the installation and integration for the new 470-seat Westmoor High School Theater in Daly City in 2020. The Shalleck Collaborative in Berkeley was the theater and AV consultant for this project. This theater also has 3 levels, with a main first level; a second level that houses the control booth, and a catwalk on the third level. PCD also provided AV installation and integration for the renovation of nearby existing buildings, including classrooms, the boy's gym, a library and a science center.

At the Westmoor High School Theater, PCD installed and integrated state-of-the-art theater systems. They installed the loudspeaker system, projection system, program paging and digital signage. The loudspeaker arrays have four speakers on the left and right and subwoofers on either side of the stage at the second level. The speaker arrays are from L-Acoustics. They also installed AV in 16 new classrooms, including new Epson projectors and JBL speakers and new SP Controls control panels for sound projection/enhancement.

In the control room, PCD installed a QL-5 Yamaha Mixing console, a Biamp DSP, L-Acoustics amplifiers and an Extron control system. They also

### Westmoor High School Theater Project Team

**CONSTRUCTION MANAGEMENT:**

Swinerton Builders

**ARCHITECT:**

Aedis Architects  
Pascal Najem, Andrew Seymour

**ELECTRICAL CONTRACTOR:**

ASF Electric

**THEATER & AV CONSULTANT:**

The Shalleck Collaborative  
Scott Krenzke, Ian Hunter, Maura LaRiviere

**AUDIO-VISUAL CONTRACTOR:**

PCD Audio & Video System Integration

**PCD PROJECT MANAGEMENT:**

Bill Graham, Director of Operations  
Christian Velasquez, Project Manager  
Gordon Barnes, Design Engineer  
Javier Albor, Lead/Senior Installer

Daniel Villagomez, Senior Installer  
Chris Iske, Technician and Programmer  
Jim Jones, Procurement Manager

**TECHNICIANS:**

International Brotherhood of Electrical Workers (IBEW) Local 551, Santa Rosa, CA

**SCOPE OF WORK, AV CONTRACTOR:**

Installation of loudspeaker system, projection system, program paging and digital signage, projection screen, cyclorama projector, assistive listening devices, distributed audio, new sound system in boys' gym, projectors and speakers in classrooms. Yamaha mixing console, Biamp DSP, L-Acoustics amplifiers and an Extron control system, control racks, and signal processing.



**Christian Velasquez**  
Project Manager



**Gordon Barnes**  
Design Engineer



**Javier Albor**  
Lead/Senior Installer



**Daniel Villagomez**  
Senior Installer



**Chris Iske**  
Technician and Programmer



**Jim Jones**  
Procurement Manager



SOUND AND COMMUNICATIONS  
of Northern California



PHOTO BY: HAWKEYE PHOTOGRAPHY

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PCD integrated a complete AV system for the new Center of the Arts at Novato High School.

PCD installed a sound system at Novato High School designed by Meyer Sound and The Shalleck Collaborative for the new 18,000 sq. foot facility.

installed microphones, racks and a Clear-Com production intercom system.

PCD installed a projector with short-throw lens directly above the stage that projects on a motorized Draper rear projection that also measures 20 feet wide, like the screen at Novato High School. A second projector, used for “digital scenery” was provided at the upstage wall (in the orchestra shell storage bustle) and projects onto a special cyclorama drapery suitable for rear projection. PCD installed a Listen Technologies assistive listening system for the hearing impaired as well as distributed audio throughout the facility, such as in the lobby and hallways. They also upgraded the audio video in

several other buildings, including classrooms, the gym, library and science center.

PCD renovated the main boys’ gym with a new sound system with new projection screen. 10 of the existing classrooms were revamped with wall-mounted projectors and speakers for the teachers. They also added a projection system to the library.

**For more information about PCD Audio and Voice System Integration and its AV services, contact Bill Graham, Director of Operations, at [bgraham@pcdinc.net](mailto:bgraham@pcdinc.net) or call 707-546-3633.**

**Novato High School Theater Project Team**

**GENERAL CONTRACTOR:**  
Wright Contracting

**ARCHITECT:**  
WLC

**ELECTRICAL CONTRACTOR:**  
Lunardi Electric

**AUDIO-VISUAL CONTRACTOR:**  
PCD Audio & Video System Integration

**THEATER & AV CONSULTANT:**  
The Shalleck Collaborative  
Scott Krenzke, Ian Hunter, Maura LaRiviere, Jedd de Lucia

**PCD PROJECT MANAGEMENT:**  
Bill Graham, Director of Operations  
Christian Velasquez, Project Manager  
Gordon Barnes, Design Engineer  
Javier Albor, Lead/Senior Installer  
Daniel Villagomez, Senior Installer  
Angelo Scalese, Master Technician and Programmer  
Jim Jones, Procurement Manager

**TECHNICIANS:**  
International Brotherhood of Electrical Workers (IBEW) Local 551, Santa Rosa, CA

**SCOPE OF WORK, AV CONTRACTOR:**  
Installation of Meyer sound system, digital projection screen, Yamaha mixing console, Crestron control system, control racks, signal processing, digital signage, distributed audio, installation of FrontRow systems, TVs and control panels.



**Christian Velasquez**  
Project Manager



**Gordon Barnes**  
Design Engineer



**Javier Albor**  
Lead/Senior Installer



**Daniel Villagomez**  
Senior Installer



**Angelo Scalese**  
Master Technician and Programmer



**Jim Jones**  
Procurement Manager