



Bringing the North Pole to Sacramento: NEC Projectors bring Santa's Workshop to life in massive Christmas light display

Christmas is a special time of year, full of joy and spectacle. One of the most iconic aspects of this celebration is the Christmas light display. While many enjoy setting their own lights up around the house, others take the passion to an entirely different level.

The Challenge

Bayside Church is one of the largest churches in the Sacramento area, with multiple campuses in the region. Four years ago, the church was inspired to provide an unparalleled Christmas light show to the community. Taking advantage of the outdoor space afforded by its Adventure Campus in Roseville, the church has set up a multi-zone, drive-thru Christmas light display that has attracted massive crowds every year since it opened.

The display consists of multiple zoned areas, and includes a display for the fill area while cars queue for entry, a 300-foot tunnel, a forest of trees, and a North Pole toy land. The entire drive through the display is approximately three-quarters of a mile long and can take 30 minutes to cruise through. The event was so popular on its grand opening that it backed up traffic for five miles.

"From the moment we open, there's no such thing as waiting for a car to come through," said Jud Boies, Executive Pastor of Operations at Bayside Church. "The amount of interest is higher than we expected. Ever since

The Challenge:

Provide commercial-grade illumination on the façade of an entire building with a sufficiently bright image, while staying within project budget and size constraints.

Solution:

(4) [NP-PA853W-41ZL](#) 8500 Lumen Professional Installation projectors with 41ZL lenses, tilt-free installation capabilities, and built-in edge blending.

Result:

Stunning projection that ties an entire display event together, drawing a large crowd and captivating its audience.





the first day, we've implemented a free ticket system so that we can control the flow."

The toy land area features a particularly impressive scene. Bayside Church wanted to project a large image onto an adjacent building, approximately 20 feet tall and 80 feet wide, to give the illusion of Santa's workshop, complete with a cutaway to show what was happening inside the building.

Recognizing the success of previous years and that the event would likely evolve into a long-standing tradition, Bayside Church notified its AV provider Alive Media that this year it wished to purchase its projectors instead of renting them.

The location of the installation was subject to high winds and rain, so the hardware needed to be small enough to fit into an enclosure, and provide high enough brightness while still meeting the project budget.

The Technology

In previous years, Alive Media had outfitted Bayside Church with NP-PA672W and NP-PA853W projectors, but since Bayside was purchasing the projectors, they recommended using the brighter NP-PA853W projectors with the standard 41ZL lenses.

"With all of the other lights in the area, the projectors for this application really need to have the highest light output that we can get for the budget," said Mark Sexton, System Designer for Alive

Media. "NEC is the only projector manufacturer offering this kind of brightness at this price point."

The size of the building also meant that multiple projectors had to be used to achieve the desired coverage area. The projectors' ability to use network LAN access aided in connecting and configuring all four units to work in harmony. NEC's Geometric Correction Tool was instrumental to the installation.

The Installation

The projectors needed to be set up across the parking lot from the building, approximately 40 feet away, and mounted about 16 feet off the ground to allow vehicles, including buses, to drive underneath. In order to conceal the projectors to fit the aesthetic of the display, as well as to protect the projectors from the elements, Alive Media coordinated with a local craftsman to build doghouse shaped enclosures.

The dimensions of the NP-PA853W were particularly critical here, as the unit had to be small enough to fit into the doghouses, and allow sufficient space for cooling, while also being powerful enough to deliver the desired light output.

The building itself is segmented into two halves, so the projectors were mounted in a two-and-two configuration to provide the necessary coverage. Additionally, the building is not perfectly flat, so Alive Media had to use projection mapping to account for arches and columns with approximately 8 inches of depth to



provide a clean image. This was facilitated with NEC's Geometric Correction Tool.

"Sharp Imaging and Information Company of America was great to deal with," said Sexton. "Once Bayside decided that they wanted to purchase projectors this year, Sharp was able to get units in our hands in very little time."

The operation of the installation is also highly automated. Several computers control the entire light display, including the Santa's workshop projection. The system fires itself up at 5 p.m., turns the projectors on, initiates the content loop, and will run until about 30 minutes after the event closes. Additionally, Alive can monitor the status of the system remotely and perform any necessary maintenance without having to send someone onsite.

The Results

This year, the projection tells a short story about Santa's workshop. As drivers approach the building, the projectors change the appearance of the building so that the exterior looks more like something that might be found at the North Pole. Then the walls of the exterior peel upward, revealing the interior of the workshop.

On one side, the audience can see Santa sitting inside, with elves working on building toys. On the other side, the audience sees elves transporting toys from a conveyor belt and loading them into Santa's sled. The whole scene plays out on a 15 second loop.

"People love the animation on our building," said Boies. "You can tell because they start going really slow as they pass it so they can see all the aspects of it. We have to have people along the route to tell people to keep moving."

Boies says the popularity of the displays are also apparent from the engagement that Bayside Church sees across social media and its related online content.

This year's display opened on December 1st. After the display is packed in for the year, the projectors will be repurposed and used in an on-call AV equipment pool for any of the 60-80 other events per week that the Church hosts, although their time for next year's Christmas light display is already reserved.