



# HOW TODAY'S WORSHIP TRENDS INFLUENCE PROJECTION SCREEN SELECTION

Finding the Right Fit for Video Projection Needs in Small, Medium, Large and Multi-Location Churches

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## INTRODUCTION


As contemporary worship traditions continue to evolve and congregations grow, video projection is playing an ever more important role in delivering the message. Whether video images serve one sanctuary or help to spread the word to a multitude of campus locations, an essential component of every setup is the projection screen. Given the variety of purposes screens serve in the worship setting, ministries need to consider several important environmental and technical factors when selecting this important tool. These factors include ambient light levels, viewing angles, screen size, and whether the screen will be permanently installed or used as a portable option.



## DESIGNING IN VIDEO

Today, video is a top priority in house of worship design, with more facilities designed and built around the technology instead of the other way around, according to Tim Ogletree, AV systems designer for MediaMerge in Birmingham, Alabama. “This opens up opportunities for incorporating video in creative and unconventional ways in combination with lighting and stage elements, allowing it to play a greater part in the overall look of the church.”

Architectural features that influence video technology selection include:

- **Large proscenium stages**—A video projection backdrop will require several projection screens or one very large screen, possibly -tom-made for the venue.
- **Smaller sanctuaries**—Video projection screens can be used to display song lyrics and text and atmospheric graphics.
- **Churches with sight-line issues**—Video projection can provide image magnification (IMAG) of clergy and musicians.
- **Portable churches**—Video technology must be durable and easy to setup, take down, and transport.

## CHOOSING THE RIGHT VIDEO SCREEN

Screens are sold in many different sizes, but their shape is determined by aspect ratio, or how wide and tall the projected image will be. A church's seating layout and its video content needs will determine the selection of either a widescreen or standard 4:3 aspect ratio.

- If high-definition video is used, a widescreen aspect ratio will be required.
- For text and graphics, a narrower screen shape is an option.

- The resolutions and aspect ratios most commonly used in houses of worship are 16:9 at 720p or 1080p and 4:3 for XGA resolution.

In terms of brightness and viewing angles, today's worship venues typically require extremely bright, high-gain video projection screens to compensate for stage lighting fixtures, broadcast setups, or simply an abundance of natural light. Viewing angles are important to consider in the many theater-style churches that are coming to the fore in worship design.

Very wide proscenium stages, for example, require extended viewing angles so that everyone across a wide seating area can see video clearly.

Many large congregations gather in ultra-wide semi-circles, so viewing angles must accommodate an arc extending more than 180 degrees. This is the case, for example, at Harvest Bible Chapel, which attracts 14,000 worshippers to its seven different locations in the Chicago area each



weekend. For one of the main sanctuaries, with seating for 8,000, video production manager Joel Smith set up three screens across the stage. “One is mounted straight across the center and the outer two pitch outward for wider angles to make sure that those seated between screens have decent viewing angles so they have the option to look at either one.”

Video projection takes many different forms at Harvest Bible Chapel, with one large campus location relying on front-projection and the other principal venue utilizing rear-projection. Both setups are used for multiple image types and purposes. “The video content we shoot is a mix between traditional IMAG and a broadcast cut, with panning shots mixed in,” Smith explains, adding that the two main campuses have full IMAG and broadcast control rooms.

Smaller projection screens and portable models also get a workout each week at Harvest Bible’s five satellite locations. Each of these smaller venues relies on a screen that maxes out at 9 feet by 16 feet for that size space, and they have to be portable for when a satellite location begins its life in a leased location. In those scenarios, all of the audio and

video equipment is loaded in and out of leased spaces each week until the satellite campus finds a permanent home. “For the satellite locations,” Smith explains, “the most important factors for the projection screens were speed of setup and resiliency in that crucible of being set up and torn down each week. But for the larger, permanently installed screens, image quality becomes top priority.”

The smaller campuses are “receive only,” Smith elaborates, meaning that the teaching content from the larger campuses is sent to the smaller screens over IP connections. “Video display was key for us at the satellite locations, because we’re asking people to adopt a ministry model where they’re going to be watching a screen for an hour for the preaching content,” Smith says. “The audio and video system has to be completely transparent to the average congregant—ideally they kind of forget they’re watching the video. If the content is rock solid, people are engaged.”

## Multiple Screens for Multiple Locations

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The goal for Harvest Bible Chapel's multi-campus ministry is to achieve an error-free presentation, "so the video doesn't draw attention away from the message," explains Joel Smith, video production manager. Much of the service is video, with sermons delivered remotely to smaller satellite locations. "We strive to make the experience as seamless as possible, so they might even forget they're watching a video."

Essential to this objective is the church's choice of AV Stumpfl projection screens, which it uses in portable and fixed installation formats at its various locations.

The small packing dimensions, lightweight construction, and quick setup and breakdown inherent to AV Stumpfl's portable screen options made them a good fit for Harvest Bible Chapel's needs. For permanent installation, AV Stumpfl offers plenty of options for congregations, including its full-white, borderless model. The manufacturer can also construct custom-designed screens in any size, aspect ratio, radius, and border configuration to fit a church's changing needs.

"What we look for when we choose a projection screen manufacturer is how we will be assembling a screen, how rugged

it is and how easy it is to repair, should something go wrong. In the case of a portable screen, we look at how durable it is, and how well it fits and survives riding around in a trailer in its case," Smith says. "The permanently installed screen, at least for us, is the most straightforward setup, and short of cleaning it, you don't have to do anything to it."

Having maintained multiple portable and fixed screens on different campuses for more than a decade, Smith is impressed with the rugged construction of the AV Stumpfl screens. They've held up well in the hands of volunteer teams that handle video production setup and operation at each church location, with nary a cause for alarm. "Honestly the biggest problem we have is with volunteers who forget they pocketed the nuts and bolts to put the frames together, and they forget to bring them back the next week."

If reminding volunteers to carefully store all the pieces together for reassembly is the biggest problem he has, Smith is happy. "We've tried to raise our production to the same level of excellence as broadcast, making operations as glitch-free as possible," he says. "We aim for perfection and settle for excellence."