On the site of the rebuilt World Trade Center complex in New York City, One World Trade Center is the tallest building in the Western Hemisphere and the sixth tallest in the world. Construction began in April 2006 and the building opened in November 2014. In May of the following year, the One World Observatory opened, offering views of New York City’s iconic sights, surrounding waters and skyline from the building’s 100th, 101st and 102nd floors.

The visitor journey at One World Observatory begins at the street-level entrance and one level below in the Global Welcome Center, where guests are greeted and invited to explore exhibits prior to taking elevators up to the three-story observation deck. Near the beginning of 2019, Legends Hospitality—which developed and operates the One World Observatory—determined that key upgrades were necessary to improve the guest experience, leading to projects that integrated display technologies.

### LED Video Walls Enhance Customer Journey at One World Observatory

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LED Welcome Wall greets visitors with ‘wow’ moment

Previously, the main driving attraction of the Global Welcome Center was a large projector system display that was used to welcome visitors. Legends management felt that this system was underwhelming and fell short in terms of quality standards and impact.

“The display appeared washed out and didn’t properly introduce the space to guests in the way we wanted,” said Delfin Ortiz, general manager at Legends One World Observatory. “The system also required constant maintenance, which was a difficult task since the projectors are located on the ceiling. To service it, we needed to use lifts which we couldn’t do while the observatory was in operation.”

In the evening, the setting sun would cast a reflection on the display, diminishing visibility. “ Needless to say, this was not the first impression we wanted to portray to guests,” Ortiz said. “These challenges drove us to reevaluate and consider reinvesting in technology to create an introduction fitting with this world- class attraction.”

The update involved replacing the projector system with a curved and expansive floor-to-ceiling Leyard® TVF Series LED video wall installation with a 1.8mm pixel pitch (TVF1.8). Named the Welcome Wall, the installation is composed of two adjoining Leyard TVF Series LED video walls—a 47.6-foot-wide, 15.6-foot-high video wall array in a 24x14 configuration and a 15.9-foot-wide, 7.8-foot-high video wall array in an 8x7 configuration—that create one contiguous and seamless digital surface.

The Leyard TVF Series is a family of fine pitch LED video wall displays featuring a 16:9 aspect ratio that allows every pixel pitch to exactly achieve popular resolutions including Full HD and 4K. Offering front serviceability and a creative stackable design, the Leyard TVF Series eliminates cabinet-to-cabinet cabling and reduces the complexity of installation and vertical alignment. With a profile of less than three inches and cabling clutter removed, the need for extra space around the video wall is dramatically reduced.
The Welcome Wall greets visitors with a large world map that transforms into a rotating globe and back to a map at regular intervals. Guests buying tickets online or at the kiosk are asked to indicate their hometown, and when their ticket is scanned at the security check, their hometown is highlighted on the map. Graphics are used to show the relative number of visitors from certain areas around the world and a stats line displays attendance data, such as the total number of visitors for the week. The Welcome Wall also recognizes the global diversity of people that visit the One World Observatory by displaying and rotating the word “welcome” in multiple languages.

“The new technology allows us to do what we originally had envisioned—to create a ‘wow moment’ for our guests,” Ortiz said. “With the projector system, people were not acknowledging that there was anything of real interest. But now, visitors regularly gather in front of the video wall for pictures. We feel it’s a great way to connect with visitors.”

Legends has started using the video wall to acknowledge holidays and Ortiz anticipates using the installation in the future to highlight special events or to show appreciation to larger visiting groups. “Our focus is the customer journey and the Welcome Wall enables us to enhance that journey in the most impressive way,” he said.

New kiosk and box office LED video walls improve guest communications

After confirming the Welcome Wall upgrade, Legends looked for further digital opportunities to better communicate to guests. This led to two more LED video wall installations—a 23.8-foot-wide, 2.2-foot-high Leyard TVF Series LED video wall with a 1.8mm pixel pitch (TVF1.8) in a 12x2 configuration that serves as a kiosk wall; and a 15-foot-wide, 5-foot-high Leyard® VersaLight™ Series LED video wall with a 2.5mm pixel pitch (VLI2.5) in a 19x3 configuration that serves as a box office wall.
Delivering high contrast and brightness, the Leyard® VersaLight™ Series is an innovative family of LED video wall displays available in a variety of pixel pitches that are designed with flexibility to support a wide range of indoor and outdoor applications. The modularity and flexibility of the Leyard VersaLight Series supports custom video wall shapes and sizes, and provides a high degree of design creativity for working with the most space-challenged applications. No other LED video wall product can be mounted, installed and serviced in as many ways.

Located at the entrance, the 12x2 Leyard VersaLight Series LED box office wall provides a tool to educate visitors about the experience that each ticket option offers as well as the various amenities available throughout One World Observatory. “The LED display really makes a difference with the ticket buying experience—it’s an incredible way to present our offerings to guests,” according to Ortiz.

The 19x3 Leyard TVF Series LED kiosk wall, located directly above the actual kiosks where customers purchase their tickets, is used for directional wayfinding and to further communicate ticket options to guests. “Since half of our audience is from outside the U.S., we need to be able to communicate with non-English speakers,” Ortiz said. “The LED kiosk wall allows us to do that using visuals that are clear and dynamic.”

Combined, the three new LED video wall installations have exceeded expectations. “The displays look spectacular,” Ortiz said. “Every step of the way, Leyard and Planar were there to assist and provide recommendations. Not only was it a tough project, but this is a pretty tough building to have any project done. Leyard and Planar worked with us through many operational changes, and their flexibility and willingness to do whatever was needed to make the project happen was truly a great partnership.”

— Delfin Ortiz, General Manager, Legends One World