



# TSA Innovation Checkpoint Showcases Lavi Industries' Best-in-Class Airport Queuing Solutions

*Transportation Security  
Administration (TSA)*

*Harry Reid International  
Airport (LAS)*

*Queuing Solutions*



## HIGHLIGHTS

Harry Reid International Airport (LAS) serves approximately

**166,000 passengers each day.**

**LAS is home to the TSA's Innovation Checkpoint,**

a testing ground and showcase for the latest security advances.

**Lavi's state-of-the-art solution included:**

- Modular grid layout for an efficient, adaptable queue
- Stable, fixed-position lanes for accurate metrics
- Emergency egress pathways
- ADA Standards compliance
- Built-in canine area to maximize floor space
- Integrated wayfinding signage for improved passenger flow
- Branding and advertising



## BACKGROUND



**Transportation  
Security  
Administration**

## HARRY REID INTERNATIONAL AIRPORT

The bustling Harry Reid International Airport in Las Vegas ranks among the 20 busiest airports in the world, processing over 52 million passengers a year. It also serves as the site of the TSA's first—and only—Innovation Checkpoint: a real-life passenger screening area that is used to evaluate, test, and showcase the latest security processes and technologies.

With over 40 years of experience in queue management, Lavi Industries has installed queues at hundreds of airports—big and small—across the country, and around the world. From the creation of standardized queue layouts for the TSA post-9/11 to advances in queue safety when Covid-19 hit, Lavi is a long-time trusted TSA partner.

The Harry Reid airport installation represents the culmination of all the most recent queue innovations showcased in one place—and it's quickly setting the standard for airport organization, efficiency, and passenger experience.



## CHALLENGES

Although the TSA has made great strides in implementing technology that improves safety and speeds up security screening, the pre-security queues were not given a lot of attention. The agency felt they could improve the queues leading to the document checkers—and this portion of the passenger journey. Successful queuing begins with aligning all stakeholders and goals.

Stakeholders and their goals:



### **TSA Innovation Task Force Team:**

Enhance lane access, control, safety, and wayfinding, and enable accurate metrics capture.



### **TSA Passenger Screening Canine Team:**

Enable easy, on-demand implementation of standardized canine screening areas within the queue footprint.



### **TSA Marketing and Branding Team:**

Incorporate attractive, flexible signage for TSA messaging.




### **Harry Reid International Airport Terminal Operations Team:**

Enhance appearance and orderliness of queues, and enable consistent reset of queues post-floor cleaning.




# PROCESS


Lavi Industries' attention to detail, project management skills, and expertise ensured a smooth, collaborative partnership with the TSA and Harry Reid from start to finish:




**STEP 1**  
**Kick-off meeting**  
to align all stakeholder groups and discuss project goals.



**STEP 2**  
**Creation of 3D rendering**  
of queues and equipment placement based on airport-provided blueprints.



**STEP 3**  
**Site visit**  
for verification of elements in the blueprint and precise area measurement, a crucial step in Lavi's process..

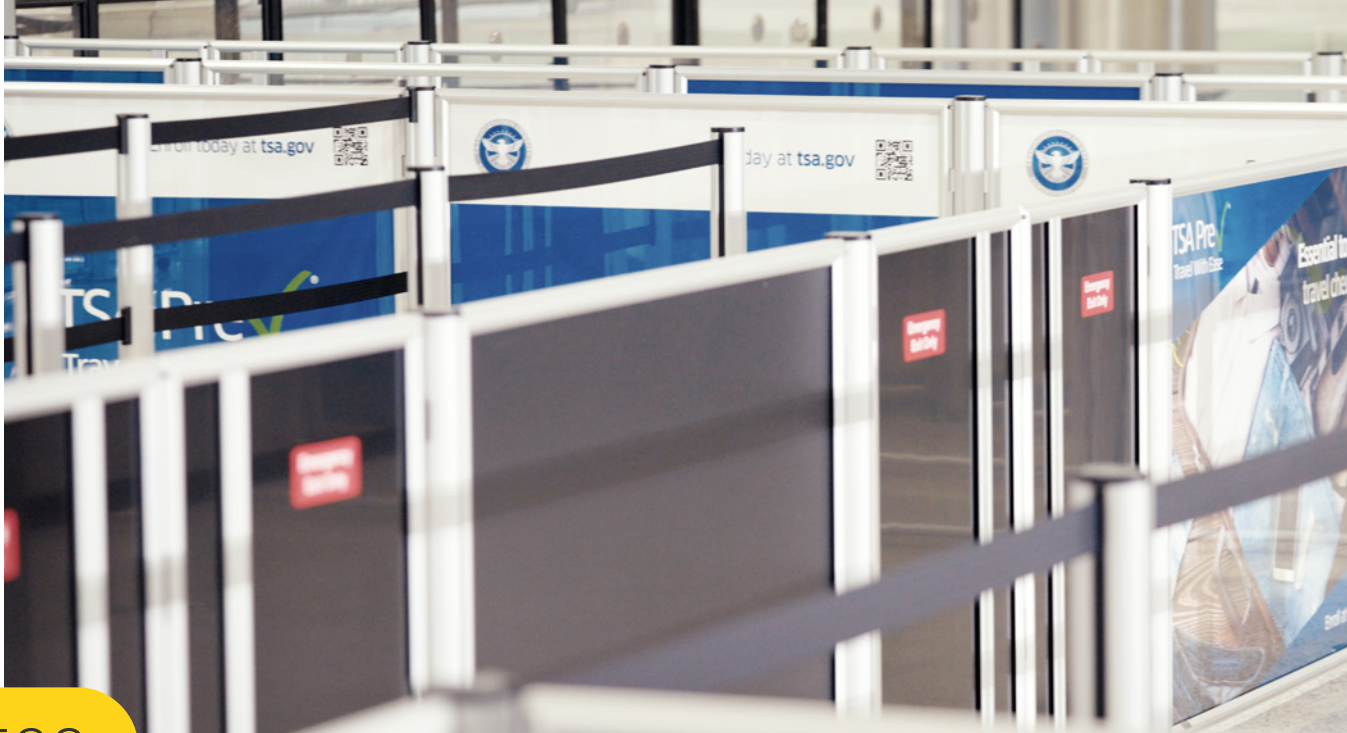


**STEP 4**  
**Plan modifications**  
based on site visit:

- Revising design and location of canine screening area.
- Replacing stanchion panel at head of Priority Lane with belted stanchion and relocating to avoid blocking fire extinguishers.

With these modifications, the site visit is a crucial step in Lavi's process.

Approval of final layouts by all stakeholders.



## PROCESS



**STEP 5**  
**Confirmation of installation dates,**  
final clearances, and  
product shipment.



**STEP 6**  
**Installation**  
by Lavi crew done  
in two consecutive  
shifts, totalling just 12  
hours, with work area  
spotlessly maintained.



**STEP 7**  
**Three-week soft launch**  
and queue  
performance  
monitoring by TSA  
Innovation Checkpoint  
personnel.



**STEP 8**  
**Review meeting**  
with all stakeholders  
resulting in addition of  
lane closure belts at  
three queue entrances.



**STEP 9**  
**Transition to ongoing**  
project monitoring  
and customer  
service phase.



## SOLUTION

Lavi Industries' queues provide versatility for staff and alleviate passenger bottlenecks.



**FLEXIBLE,  
MODULAR LAYOUT:**

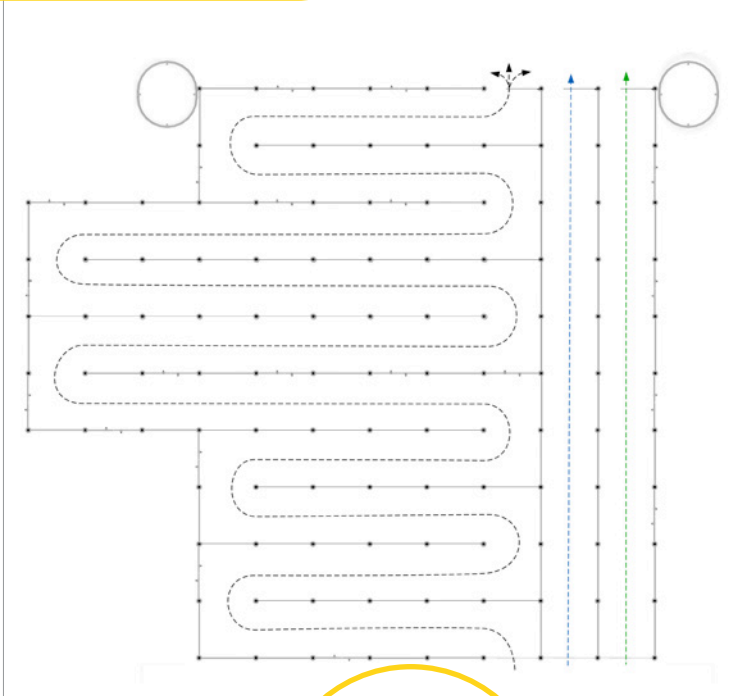
By developing the queue layout using a standard 52.5" grid, TSA personnel can put a belted stanchion, solid panel, graphic panel, or egress gate between any two points to modify the arrangement. They can change the direction of gates, add or remove belts, and alter traffic flow as the need arises. Designed for the long-term, Lavi's modular queues are quickly and easily retrofitted as we develop new innovations.



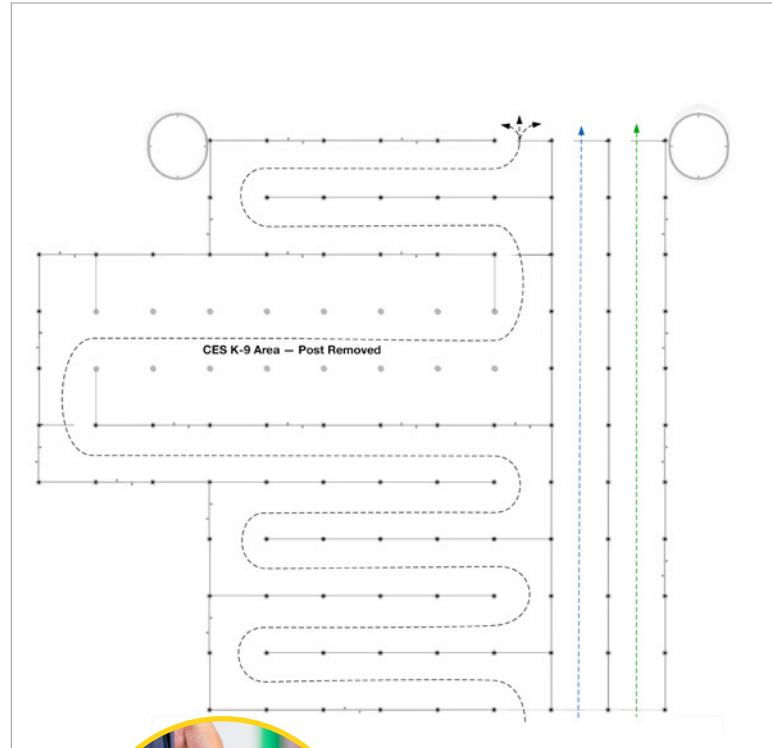
*“Once we install and give you your queue, we’re not done. Queues are living, breathing things—and we work with customers to continuously change them for the better.*

- PERRY KUKLIN, LAVI INDUSTRIES

# SOLUTION



Regular queuing layout



Canine screening layout



## MAGNETIC STANCHIONS:

Lavi Industries pioneered circular, 0.10" thick steel magnetic plates that glue to the floor in a precise grid arrangement—a solution more reliable, sturdy, and durable than portable stanchions, and more flexible than permanent stanchions drilled into the substructure. The plates' wafer-thin flatness makes it easy for wheelchairs and luggage to roll over. If needed, the plates can also be removed through a simple process that preserves the floor, leaving no scuffs or residue behind.

Due to their small diameter, Magnetic Stanchions enable an average of 15% more lanes than the traditional portable stanchion. While exceptionally sturdy, the staff can also remove the Magnetic Stanchions to change the queue configuration and to clean the floors.

## CANINE SCREENING FLEXIBILITY:

When a canine unit is brought in, staff can easily remove stanchions in the grid to open up an area for the dogs. Opaque wall panels are built into the queue to minimize visual stimuli or intruding scents, thereby improving the dogs' concentration. Rather than creating a separate space to use just a few days every month, airport staff spend less than five minutes modifying the space for canine use, keeping queue traffic flowing.





## SAFETY:

The use of clear plexiglass panels around the perimeter of the queues keep sight-lines open while preventing passengers from moving into off-limit areas. Double-belted stanchions meet ADA guidelines and are fitted with emergency breakaway belts that snap away from the posts when met with a 12-pound or more force, such as a passenger running through it. Post & Panel barrier walls include sections outfitted with Magnetic Egress Gates, enabling safe exit in any direction in case of emergency.

## SIGNAGE AND COMMUNICATIONS:

The design features multiple points for communications:

- Queue entrance signage. Traditionally, a big pain point for passengers is not feeling confident they are in the correct lane. An innovation in wayfinding, Overhead Signs posted across the top of eight-foot-tall entrance stanchions, leave no question for travelers about where they should go: "General Boarding," "Priority," or "TSA PreCheck." Previously, airports had to hang a sign from the ceiling or use a standard eye-level sign frame, which was often overlooked.
- Integrated queue sign panels. Located at entry and all along the lanes, these panels feature messaging reminding passengers about safety measures, how to sign-up for PreCheck, and more.
- Standalone signage. Hard-to-miss, seven-foot tall Edge Tower signs provide travelers with important messaging before they even enter the queue.



## BENEFITS

By partnering with Lavi Industries for the latest advances in queuing, Harry Reid International and the TSA Innovation Checkpoint gained:

- + **A modern, organized grid layout for their queue**
- + **Enhanced safety and access control**
- + **Sturdy, fixed-position stanchions for more accurate metrics**
- + **Flexibility during crowd surges and special operations**
- + **Consistent queue reset using Magnetic Stanchions**
- + **Opportunities for TSA branding and messaging**
- + **Minimally invasive, safety-first Magnetic Stanchions**
- + **A showcase of best practices and modern, ultra-efficient queue design**
- + **Improved passenger experience with better efficiency, flow, and wayfinding**



## RESULTS

By working collaboratively, Lavi Industries designed and implemented a modular, flexible, and futureproof queue solution that delights travelers and staff alike.



### Organized, versatile design

Top TSA brass gave Lavi Industries a standing ovation for the organization and structural integrity of the new queues. TSA staff expressed appreciation for the ease to create paths and then switch back to regular queuing.



### More accurate wait times

The TSA's Wait Time Matrix depends upon a predictable queue length and layout that remains the same day-to-day. With the Magnetic Stanchions in a standardized grid, the TSA can accurately estimate how many people are in the queues, how many lanes are filled, and when rerouting is needed to balance wait times.



### Improved traffic flow

Retractable belts are the choice mechanism for adjusting to traffic demands, allowing staff to quickly and easily extend queues, open up shortcuts, or close off lanes.



### Less confusion and more self-sorting

With straight, clean, organized queues, staff noticed a significant dropoff in confusion. Passengers are better able to self-categorize at the entrance of the queues, rather than spend time on the wrong line. Because of this clarity, staff is asked fewer questions by passengers, allowing them to focus on proactive queue management.



### Orderly pre-fill lanes

The creation of mini lanes to pre-fill the area in front of each travel document checkpoint booth prevents encroachments and provides a sense of equity. Lavi Industries installed hinged swing gates, which further decreased traveler anxiety and improved overall behavior.



### Better passenger experience

"Travelers seem happier," says an airport representative. They've noted calmer passenger flows and less aggressiveness in the queues as people know where to go. Passengers have commented to staff members that they like the "new, clean, organized" queue.



## RESULTS

The TSA, the airport and, most important, travelers passing through the queues at the TSA Innovation Checkpoint, are reaping the benefits of flexible, smart, and clear queuing.

As travel increases and U.S. airports move forward with a **billion dollars' worth of robust expansions and renovations** in the coming year, Lavi Industries stands ready with advanced queuing solutions to help enhance efficiency, safety, and the experiences of travelers and staff alike.

Ready to upgrade your queue and improve your customer experience?

**Let's get started!**

[CONTACT US](#)

**See our complete line of Queue Management solutions »**

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