



Case study

# HONOLULU SKYLINE AUTOMATED RAIL TRANSIT SYSTEM



## STAINLESS STEEL FABRIC DELIVERS SAFETY, DURABILITY, AND TRANSPARENCY TO TRANSIT

Traffic on the island of O'ahu in Hawaii is known for being among the most congested in the nation. Residents in communities such as Kapolei, Waipahu, and Pearl City dealt with slow, grinding commutes into the capitol city of Honolulu because there were limited alternatives to sitting in gridlock on the H-1 freeway. Working to solve that problem was the impetus behind the design and construction of Honolulu Skyline, one of the largest public works projects in the state's history.

that was at the heart and soul of the design. The guardrail infill panels needed to meet stringent building codes while preserving sightlines and creating a sense of transparency that would enhance passenger comfort and security.

For durability in Hawaii's humid, salt-air environment, stainless steel metal fabric from GKD Metal Fabrics was specified for the guardrail system. The material's low-maintenance qualities and ability to provide fall protection without creating visual barriers were ideal for the project. Working directly with installer Triad Fabricators, GKD provided this architectural solution for multiple Skyline stations, delivering 32,426 square feet of Potomac weave mesh configured as framed guardrail infill panels.



Years in the making, the Honolulu Skyline automated rail transit system project began in 2015 and opened its first segment in June 2023. The 18.9-mile elevated guideway features 19 stations, each designed to reflect the unique character of the community they serve. The system extends from East Kapolei to a planned terminus at Civic Center Station in downtown Honolulu.

Parsons Transportation Group was tasked with the design of the Honolulu Skyline. The design team faced the challenge of protecting passengers on elevated station platforms while maintaining the open, welcoming aesthetic





## PROJECT DETAILS

### Owner

Honolulu Authority for Rapid Transportation (HART)

### Architect

Parsons Transportation Group

### Mesh Type

GKD Potomac weave



**“We were chosen because we could provide an aesthetically pleasing and effective solution while accommodating a very tight project schedule,” says Dale Payne, P.E. chief engineer for GKD-USA, Inc. “The main challenges were coordinating with our customer on the different types of panel sizes and fabricating a large number of panels within a short period of time.”**

GKD Potomac weave offers an optimal combination of structural integrity and visual openness. Unlike solid barriers that could create a closed, institutional feeling, metal mesh maintains sightlines across platforms while providing the required fall protection function. The mesh panels utilize U-binding frames for secure attachment, creating a system that effectively balances safety with the project’s unique architectural vision.



The schedule for this high-profile project was unforgiving and working within the compressed timeline required exceptional coordination. The Honolulu Authority for Rapid Transportation (HART) was managing construction across multiple segments simultaneously, and any delays could cause a chain reaction that would impact the entire schedule. GKD’s project team efficiently sequenced shop drawings for the numerous panel sizes required across the various station configurations, ensuring fabrication and delivery kept pace with construction demands.

The guardrail panels were successfully fabricated and installed, and the first nine stations opened to the public just seven months later in summer 2024. More than 40,000 passengers experienced the Honolulu Skyline’s opening weekend, many of them interacting directly with the GKD guardrails as they made their way through station platforms.

When fully completed, the system is projected to serve 85,000 daily passengers. At such an intense level of usage, proven performance and durability make all the difference. As the Honolulu Skyline continues to expand, GKD’s guardrail systems will continue to protect commuters while maintaining the open, inviting atmosphere that defines the passenger experience.



### Contact Information

GKD-USA

T 800 453 8616

metalfabrics@gkd-group.com

gkdmalfabrics.com