

Custom Noise Barrier - Dennis Johnston Park

Durisol was first approached back in March of 2015 to find out how they could work to protect Dennis Johnston Park in Spring, Texas from highway noise from the newly built Grand Parkway which will be the longest beltway loop in the U.S. once completed. One area of the park, the Big Stone Lodge was exposed to the new northbound entrance ramp onto the Grand Parkway.

The park is named after Dennis Johnston, who holds his office is at the park, and the park is a favorite of the Harris County Commissioner. When the Harris County Toll Road Authority announced the new entrance ramp just on the edge of the parking lot of the Big Stone Lodge, the commissioner set out to make sure that the wall would not be detrimental to the park.

He contacted a well-known Houston Area Landscape Architect, Merrie Talley. The commissioner asked that the noise wall be attractive and to “push the science of noise walls” for this project. They were very interested in both absorptive Durisol and SoundStop for their “out of the box” appeal.

Many design renditions came over the next 2 years during the design of the noise barrier system (see figure 1). The goal was to have a unique design that reflected the essence of the park, incorporating the landscape design and custom lighting.

Durisol worked very closely with Merrie Talley to turn concepts into buildable designs, convincing the HCTRA that Durisol was a company with a long history in the noise barrier industry backed with well established products and published test data.

After many meetings and conversations between Durisol, Talley Landscape Architects & HCTRA, a design was finally emerging. The ground mount section would be 18 ft tall, 14 ft absorptive Durisol panels with 4 ft of SoundStop on top. The absorptive Durisol section would have a custom deer mural on the park side and no pattern on the highway side. The SoundStop would have a ‘satin ice’ color and would be lit by LEDs (see figure 2). The elevated Entrance Ramp section would have 4 ft tall SoundStop mounted to a concrete traffic barrier.

CUSTOMER & OWNER

HARRIS COUNTY TOLL ROAD AUTHORITY

CONTRACTOR & INSTALLER

TEXAS WALL AND LANDSCAPE

ENGINEER

KLOTZ

LANDSCAPE ARCHITECT

TALLEY LANDSCAPE ARCHITECTS

LOCATION

SPRING, TEXAS

ABSORPTIVE WALL AREA (ft²)

8,285

TRANSPARENT WALL AREA (ft²)

1,884



Figure 1: Design rendering of deer mural.

Durisol is the market leader in the noise barrier industry, with the first Durisol noise barrier manufactured and installed in North America in 1977, paving the way for new industry standards for noise barriers.

Durisol®

CASE STUDY

As Klotz engineering created initial drawings for the project, Durisol worked with them and HCTRA to create specifications for the project. It was determined that there would be a completely custom deer mural shown with detail and depth on the absorptive Durisol panels. Durisol produced a sample from the original artwork created by Merrie Talley for approval in 2017 (see figure 3).

Innovative Lighting was contacted to supply all the LED lighting for this project at Dennis Johnston Park. They had previously completed a very large project in downtown Dallas that

involves animating the entire exterior of the Omni hotel, making them a good fit for this project.

In the spring of 2017, the project was awarded to Texas Wall & Landscape. Following the award, Durisol started working with the Merrie Talley to finalize a design for the deer mural panels. There were very exact and detailed ideas of what was wanted for these panels, and Durisol was up to the challenge to design the moulds and eventually cast the panels.

Production then followed soon after a final rendition of the deer mural panels were approved by all parties involved.

Durisol supplied all the custom deer panels, SoundStop transparent sheets, and the fabricated painted steel posts. Installation started in the summer of 2018.

Durisol was actively involved throughout the entire process of this project, from concept to completion. Durisol assisted with various aspects of the project such as engineering, design, renderings and custom product samples. Durisol was very happy and eager to work with everyone involved offering the client a turn-key operation.



Figure 2: LED lighting.



Figure 3: Deer mural sample.



Figure 4: Finished installation.

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