



## PROJECT PROFILE

# BRIDGE DECK EPOXY OVERLAY ON SR-19 OVER PALATLAKAHA CREEK



## PROJECT DATA

**Location** – Groveland, FL

**Application** – Bridge Deck Overlay

**Architect/Engineer** – Florida Department of Transportation, District 5 Structures Maintenance, Jonathan Jastremsky, P.E.

**Contractor** – VinMar Waterproofing and Concrete Restoration

**Material Supplier** – HD Supply - Tampa, FL

**Total Area** – 8,272 ft<sup>2</sup>

## PRODUCTS FEATURED

**Flexolith Summer Grade**

Low Modulus Epoxy Binder for Polymer Overlays

## SCOPE OF PROJECT

- Bridge built in the year 2000, deck was worn and exhibits long-term shrinkage cracks.
- Seal cracks, protect steel reinforcement from water intrusion, and provide a high friction driving surface with long-term durability.

## PROJECT SUMMARY

The Palatlahaha Creek bridge, on Florida's State Road 19 was built in 2000. This bridge provides the only direct connection between the historic towns of Groveland and Tavares. This bridge is quite busy with over 10,000 vehicle crossings each day. During inspection in early 2016, significant wear and surface cracking was observed and the deck was slated for refurbishment. **Flexolith**, a high friction surface topping and deck crack sealer, was a perfect fit for the project.

SR-19 has to stay open 24/7 for essential life safety services - fire, rescue, and sheriff. During bridge maintenance one lane remained open while the other was prepared and resurfaced with the Flexolith system.

A full eight hour day was required to shotblast the bridge deck surface, removing dirt, oil stains, and old pavement markers. The following day the deck was pressure washed to remove residual dust latents. Thanks to warm temperatures, the bridge deck was dry by the following morning and ready to be coated.

Flexolith was applied by squeegee at a coverage rate of 40 ft<sup>2</sup>/gal followed by an immediate broadcast of the specified skid-resistant aggregate. In three hours, one lane 22 feet wide and 188 feet long had been covered with the first course of epoxy and aggregate. When the first coat of Flexolith was solid, excess aggregate was removed. The second lift of epoxy and aggregate was applied, 20 ft<sup>2</sup>/gal. After curing ~3 hrs, any remaining unbonded aggregate was removed from the deck. The process was repeated on the adjacent lane.

The Florida DOT requirement for a 5 year performance warranty is no problem for the Flexolith system, which has over 10 years of documented success on high traffic interstate bridges. With Flexolith, Florida DOT District 5 Structures Maintenance Department was able to provide high value protection and additional lifespan for the SR 19 Palatlahaha Creek bridge deck.