

## **US-131 / M-6 Interchange: Retaining Wall**

### **Context**

The project area is located within Gaines Township in Kent County. Industrial and commercial land use is dominant, although there are some high density residential properties in the area.

### **Purpose and Description**

The purpose of the project was to design and construct aesthetic retaining wall faces that continued the M-6 corridor color scheme and tied the US-131 corridor to M-6 with regarding the texture and contrast utilized on the M-6 corridor bridges.



### **Public Engagement**

From the standpoint of the industrial and commercial uses, MDOT had the confidence of the local Chamber of Commerce, Kent County Road Commission, as well as some of the local business groups, as a part of the overall design process. From the perspective of the high density home sites, this area can not be seen due the dramatic grades in this area.

### **Challenges**

Challenges included developing a repeatable pattern that was efficient for construction and offered the greatest amount of flexibility given the numerous elevation changes and the desired texture pattern (Fractured Fin raised panels). Maintaining a constructable product as well as a signature look to this area of numerous ramp exchanges in a depressed freeway setting was a design and aesthetic challenge. Each accent area needed to be placed for look as well as safety. These retaining wall areas vary dramatically from end to end. A pattern was chosen that could be designed to fit the wall design widths as well as the adjacent bridges, and provide a similar visual effect.

### **Context Sensitive Solutions Approach**

Try to tie the theme of M-6 into the US-131 corridor without creating constructability and maintenance challenges.

### **Outcome**

The design layouts for the patterns were completed and checked from all aspects involved, design, construction, and maintenance. The construction of these came out nicely. The texturing looks completely different for the US-131 portion of this project, but fits the theme of M-6 in every other way, that is the color of the surface sealer, widths, and types of texturing and safety.

### **Funding**

This work was included in the Improve Expand funds that were used to complete the entire M-6 corridor.

**Contact: Bart Franklin, Cost & Scheduling Engineer, Grand Rapids TSC, 616-451-3091**