

## **CASE STUDY**

### NASA DEPLOYS FODS ON CRAWLERWAY IMPROVEMENT PROJECT AT KENNEDY SPACE CENTER

### **BACKGROUND**

NASA's history of utilizing advancements in innovative technology stretch far beyond space exploration. Kennedy Space Center includes sophisticated facilities, equipment, structures and a dual lane route, called the Crawlerway, designed to allow assembly and transport of massive rockets and payloads to launch sites. Once assembled, rockets are transported from the Vertical Assembly Building to Launch Complex 39A and 39B via the Crawlerway. The Crawlerway is composed of two 40' wide dual lanes separated by a 50' median that supports the massive weight of over 6.6 million pounds of the Crawler-transporter, mobile launcher, the fueled rocket and spacecraft modules. The Crawlerway stretches 3.4 miles and 4.2 miles to Launch Complex 39A and 39B.

The Crawler-transporter, mobile launcher, and payload cause the Crawlerway to move and vibrate, a phenomenon known as liquefaction. The top layer of the Crawlerway consists of up to 8 inches of Tennessee River Rock. Below the river rock is 6.5' of gravel and sand that supports the weight of the Crawlers and keep the rocket and spacecraft module upright. To prevent liquefaction, the Crawlerway is being conditioned and compacted to hold heavier payloads of up to 26 million pounds to ensure future commercial missions can safely be executed. As part of the Crawlerway Improvement Project, NASA has upgraded the Crawler-transporters, and is removing a storage facility for the decommissioned Mobile Service Structure (MSS). During the Apollo era, the MSS provided access to the spacecraft and allowed technicians to service the spacecraft and complete final inspections before lift off.

#### **CHALLENGE**

As NASA conducts Crawlerway compaction and demolition of the Mobile Service Structure building, and due to NASA's location on Merrit Island, precautions against dust and contamination of sensitive surrounding surface waters and trackout onto the Saturn Causeway, a service road adjacent to the Crawlerway, are required.



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#### **SOLUTION**

Ferguson Waterworks supplied Frank-Linn Excavating, the company conditioning the NASA Crawlerway and removing the MSS holding building, with a FODS Reusable Construction Entrance. The entrance was placed between the Saturn Causeway, a service road adjacent to the Crawlerway and the MSS storage building to contain dust and debris within the jobsite. Being a rockless system, the composite mats provide a solution for sensitive areas where introducing rocks poses a safety or environmental risk. With FODS, contractors prevent debris from entering high FOD risk areas and keep construction sites safe and compliant.

FODS mats offer best-in-class performance over traditional sediment, FOD removal or FOD prevention techniques. This modern, reusable system can be deployed in as little as 30 minutes over asphalt, concrete, or soil. Using FODS helps contractors stay compliant with NPDES requirements and helps reduce costs of construction entrance installation, maintenance and removal.

Crawlerway Improvement Project demonstrates NASA's support for advancements in innovative technology that provide solutions to challenges - both new and old.

### **ABOUT FODS, LLC.**

The recent installation of FODS on

Based in Englewood Colorado, FODS Trackout Control System replaces ineffective and costly traditional rock stabilized construction entrances, saving you valuable time and money. Our proprietary mat design works to effectively remove mud and sediment from your vehicle tires without damaging the tire or the ground's surface. We provide the only durable, reusable, and environmentally friendly trackout control system currently available on the market. FODS Trackout Control Mats are 100% Made in the USA and are reusable and recyclable.