

**University of Pittsburgh  
Center for Impactful Resilient Infrastructure  
Science and Engineering**

**Landslide Capacity Building Seminar Series  
September 2020**

**PRESENTATION ABSTRACT:  
Route 30 Emergency Landslide Repair,  
Use of Technology to Expedite Action**

by

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September 2020**

On April 7, 2018 a significant landslide resulted in the closure of US Route 30, a 4-lane, principal artery to Pittsburgh, supporting 30,000 vehicles per day. The landslide collapsed 300 feet of roadway, sending thousands of cubic yards of material into the neighborhood below. No one was injured.

Gannett Fleming and PennDOT responded immediately, spending the next two weeks working side by side, night and day to devise a plan to repair the roadway and accommodate the displaced residences. A commitment was made to pool resources, setting a goal of 2 weeks for design and 2 to 3 months for construction. In order to achieve these goals, the team had to use innovative approaches and integrate several technologies into the process.

This presentation will briefly demonstrate the aggressive techniques and technologies used, allowing the team to accelerate investigation, design and repair processes. The technologies include Lidar mapping, drones, global positioning systems, and other real-time electronic data transfer systems.

These technologies, along with 24/7 operations allowed the team to remove 35,000 cubic yards of landslide material, fabricate and construct a 400-foot long anchored wall, rebuild a 90-foot-high embankment slope, and reconstruct 500 feet of roadway in only 80 days.