

BRIDGING THE GAP

YOUR CONNECTION TO ENGINEERING SERVICES

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What the Next Generation of Geotechnical Engineers Needs

Engineers with the Caltrans Division of Engineering Services (DES) assist local districts by providing emergency response to geohazards such as rock fall, land slide and culvert overflow. The latter was the case with a culvert at Highway 1 on the Big Sur Coast at Rat Creek. Debris from the Dolan Fire plugged a culvert and washed out an embankment, leaving a 150-foot section of asphalt missing.

Ryan Turner, Senior Transportation Engineer with Geotechnical Services (GS) provided emergency response in late January 2021 by assessing repairs for the Rat Creek infrastructure.

As part of the DES Geotechnical Services subdivision he provided onsite investigative and design assistance to develop a solution for the eroded path – a new culvert with 300 percent more capacity and an additional three to four culverts as reserve.

“Only experience can prepare you to respond to geohazard emergencies like the Rat Creek embankment failure, but a strong understanding of civil engineering principals and the ability to logically evaluate a problem are the

foundation for the next generation of engineering students entering the geotechnical field,” said Turner of his experience at Rat Creek.

Ryan continues, “The analytical and problem-solving skills developed in college are the same skills needed to succeed in the high-pressure environment of a transportation corridor emergency, where cost, scope and schedule are often dictated by geotechnical aspects of the work . . . I was fortunate to begin my career at Caltrans working with highly respected and knowledgeable colleagues who included me in the group and helped me learn from their experiences as well as my own.”

To find out more about the Geotechnical Services subdivision please visit our webpage linked below.

CAREER OPPORTUNITIES

- Architectural Designer
- Associate Architect
- Transportation Engineer (Civil)

Visit [Working With Division of Engineering Services](#) to learn more about how to join the Division of Engineering Services.

