



## FULL-DEPTH PAVEMENT REPAIR GOES QUICKLY WITH RAPID SET® CEMENT

**Project Type:**

Highway

**Application:**

Full-depth panel replacement

**Location:**

Salt Lake City, UT

**Project Dates:**

Spring 2020

**Project Owner:**

Utah DOT

**Contractor:**

Dry Creek Structures

**Project Size:**

760 cubic yards

**Product:**

Rapid Set® Cement

The Utah Department of Transportation (UDOT) undertook concrete pavement renewal on SR-201 in Spring 2020, with a goal of repairing deteriorated areas that had experienced general wear and tear. Repair areas were located on a stretch of SR-201 between the I-80 interchange and the Jordan River, with most being concentrated in or close to metropolitan Salt Lake City.

Concrete renewal work included diamond milling for smoothness as well as panel replacement, also known as full-depth repair. Full-depth repair involves removing and replacing all or part of a concrete slab with the depth of removal extending to the bottom of the slab. It fixes localized areas of severe distress, such as cracks and spalls, and restores roads to good driving condition.

To complete full-depth repairs on SR-201, 760 cu. yds. of Rapid Set® cement concrete (250 tons) were used. The cement, aggregate and water were mixed with a volumetric mixer, finished with floats and a screed and cured with Poly-Alpha-Methyl-Styrene (PAMS) Concrete Curing Compound.

The contractor, Dry Creek Structures, self-performed the work and found Rapid Set cement allowed panels to be quickly poured. The concrete met UDOT's spec for rapid setting hydraulic cement concrete, including a minimum of 5.0%- 7.5% air content, compressive strength at 4 hours

# PROJECT PROFILE

a minimum of 4000 psi, flexural strength at three days of 550 psi and a minimum of 650 psi flexural strength at 28 days. Maximum drying shrinkage was 0.04% at four hours.

UDOT uses bulk Rapid Set in time-sensitive areas, where it enables them to keep traffic moving. The SR 201 sections that required repair experience extremely high traffic volume, as they accommodate commuter and truck traffic. The traffic window for the contractor to perform work was from 10:00 p.m. to 6:00 a.m. nightly. In that window, demolition, installation, and curing the concrete all had to be completed in time for the morning commute. Rapid Set was the only choice to meet these strict traffic limitations and 3000 psi for opening strength was achieved.

CTS Cement Manufacturing Corporation manufactures Rapid Set professional-grade cement products for concrete repairs and new construction projects. Contractors, owners, engineers and architects choose Rapid Set to eliminate problems they have with other concrete repair materials, to save time and money, when superior durability is required and results need to be aesthetically pleasing. For more information about CTS Cement and Rapid Set, please visit [www.CTScement.com](http://www.CTScement.com).

## ABOUT CTS CEMENT