

# I-70 Bridge Rehabilitation

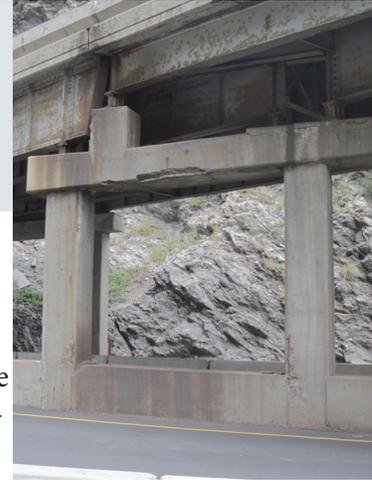
## US SPEC PRODUCTS

**US SPEC Products:** STR Mortar

**Contractor:** ABCO Contracting Company, Inc.

**Date of Completion:** September 2011

**Owner:** Colorado Department of Transportation



According to the American Society of Civil Engineers (ASCE), in 2009 our nation's infrastructure had a GPA (grade point average) of "D". Bridges boasted the second highest grade with a "C". According to the same source, \$2.2 trillion was needed to improve our infrastructure's condition.

Back when our great nation established the Department of Transportation in 1966, bridges were typically built to last 50 years. With the greater portion of our nation's bridges nearing 45 years old, the time is past due for us to repair and reinvest in our nation's infrastructure.



The Colorado Department of Transportation (CDOT) repaired and restored piers on the bridge crossing over Clear Creek and US 6 on westbound I-70 through the Rocky Mountains. Trucks over 26,000 lbs. were required to use the designated left or right lanes while repair and restoration activities commenced on the bridge piers below. Traffic was restricted to minimize vibrations, allowing the repair materials to properly set and develop performance characteristics prior to subjecting them to loads that could compromise the integrity of the repairs.

Over time, reinforcement corrosion has caused cracking and degradation of the in-place concrete. Rehabilitating the bridge, built in 1957 and rated in "poor" condition, will extend the lifespan of the bridge by about 10 years.



US SPEC STR Mortar, approved by CDOT, was selected for these repairs. STR Mortar was chosen because it is specifically designed for flowable form-and-pour and form-and-pump applications where high strengths are required. With a low water/cement ratio of .34, high fluidity and an extended initial set time, STR Mortar delivered the solution CDOT needed. STR Mortar is a durable repair material achieving 8,000 psi in 24 hours and over 12,000 psi in 28 days.