

New Cableway System Set For Hoover Dam Bypass

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Work on the \$240-million Hoover Dam bypass is reaccelerating after setbacks related to a 2006 cableway failure.

Erection of the 1,960-ft-long, 88-ft-wide arched bridge over the Colorado River came to a halt in September 2006 when the 2,500-ft-long high-line cableway system used to place steel tub girders and precast concrete deck sections collapsed. The project was about 40% complete.

The replacement system is customized for the project as opposed to the original, an older piece of machinery adapted for the job. Burnaby, British Columbia-based Somerset Engineering Group is leading the replacement cableway design, with F&M Masco as developer. The system is now in use on a limited basis until fully vetted, a process expected to be done before March.



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Once it has been vetted, a replacement cableway system will place girders and deck sections for the Hoover Dam bypass.

“Currently they are flushing out a few details like slack carriers, load blocks, hydraulics and operational efficiency,” says Dave Zanetell, project manager for the Federal Highway Administration. “These are the type of issues that can be expected when bringing such an integrated system on line.”

A joint venture of Obayashi Corp., San Francisco, and PSM Construction USA Inc., Brisbane, Calif., purchased the original cableway, a refurbished 42-year-old, \$11-million system from American Bridge Co., Coraopolis, Pa. The team won the superstructure contract with a \$114-million bid. That work is now expected to reach \$120 million.

Canyon winds at the time of the accident were about 55 miles per hour, not unusually strong. Zanetell says the cause of the collapse is still under investigation, but the project should still finish within budget because of a \$6-million contingency fund. The contractors will absorb the costs of the collapse and the delay of completion from this fall to 2010. They face \$8,000 per day in late fines after 1,217 working days.

The U.S. 93 bridge, dubbed the Mike O’Callaghan-Pat Tillman Memorial Bridge, will be an alternative to the two-lane road atop Hoover Dam between Las Vegas and Phoenix. When completed, the bypass will carry four lanes of 17,000 vehicles daily.

Immediately after the 2006 collapse, two cranes were brought in to continue work. As a

result, all column work on the canyon walls has been completed. In anticipation of the new cableway system, crews began precasting the first segments for the arches in January. The initial six segments on each side of each arch are post-tensioned and will extend 150 ft from the canyon wall.

Remaining sections will be supported by external wires held aloft by towers on each side of the bridge. As a section is placed, it will be strapped to the precast concrete tower and held in place so the next section can be set, essentially creating a cable-stayed bridge. A closure pour will connect the two sides. Zanetell says the 330-ft-tall precast towers will be placed by June.

A \$7-million paving and guardrail project also has been awarded. Las Vegas Paving Corp., Las Vegas, expects to complete work on approaches by this summer. Another \$8-million contract will be awarded in 2009 for remaining paving, final signing, striping and barriers.

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