UDOT Using Innovative Paver on I-15 Project

Story by: Nichole Ekberg, Utah Transportation Report
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They call it the Gomaco 4000. It's a hulking beast of a machine designed to suck in tons of wet concrete and then spit it out into a smooth strip of new road, three lanes wide. Crews are now using it to pave portions of the Utah County I-15 Corridor Expansion (I-15 CORE), UDOT's project to reconstruct and expand 24 miles of the freeway there.

UDOT said it is counting on the Gomaco and other innovative technologies proposed by the contractor, Provo River Constructors (PRC), to help rebuild I-15 by 2012.

"UDOT won't use innovation just for innovation's sake, but it definitely is something we are attracted to," said Heather Barnum, spokesperson for the I-15 CORE construction project. "This type of paving method is intended to be efficient and help meet PRC's aggressive schedule while improving the precision and quality required on every job."

The process of paving with the Gomaco is an interesting dance. Trucks spread concrete in front of the machine. It is turned on and begins to inch forward, sucking in the concrete and then spreading it out behind. The big yellow machine takes about 20 people to operate, and hundreds of loads of concrete are used each day to create new road.

Engineers say it is near-perfect at laying the concrete, to within an eighth of an inch of specifications using new wireless technology. The machine is fully automated, with sensors mounted on both the machine and at locations on the side of the road to help it determine where to lay the concrete and how thick it should be.

Traditional methods of paving require workers to run a wire line alongside the road they want to be paved. They then determine the depth of the concrete they pour based on measurements taken from the wire line.

"The problem with the wire is that it can be bumped and the integrity compromised and you may not even know it," said John Butterfield, UDOT materials and pavement engineer for I-15 CORE. He believes the massive paver is more efficient than traditional methods that require more crews to lay the wire and vigilance to ensure the line isn't bumped.

From Butterfield's perspective, one of the challenges in rebuilding I-15 in Utah County is the massive amount of paving that needs to be done without disrupting traffic. A total of 2.8 million square yards of concrete paving needs to be done on the project and just over 12 percent is complete.

Crews recently completed a paving operation in Springville and American Fork and have moved the Gomaco to start activity in Orem and Provo. Teams plan to work as long as they can before paving work will likely slow for a few months as result of colder weather. Still, UDOT says it is excited about the work done so far on I-15. The agency is ahead of schedule with its project to reconstruct the road and hopes to eliminate as much delay as it can for the driving public by using innovations such as the Gomaco.