

## FIRST PLACE TRANSPORTATION

### PROJECT TEAM + STATS:

**Location:** Troutdale, Oregon

**Cost:** \$92.7 million

**Start date:** April 2010

**Completion date:** October 2014

**Owner/developer:** Oregon Department of Transportation

**Engineer:** HDR Inc.

**General contractor:** Hamilton Construction



## Interstate 84 Sandy River – Jordan Road, Bundle 210

**SUBMITTED BY: OREGON DEPARTMENT OF TRANSPORTATION**

The Sandy River Bridge on Interstate 84 is one of Oregon's busiest traffic arteries and a vital commerce connection that can't be shut down without significant economic consequences. It's also in the heart of an environmentally sensitive area that requires particular attention be paid to avoid interfering with two yearly fish migrations.

"I'm coming up on retirement in a few years and this project, by far, was the most challenging of my career," said Hamilton Construction's Brad Sullivan.

To allow traffic to continue to move through the area with as little disruption as possible during the project, ODOT and project general contractor Hamilton Construction decided to build a temporary bridge as a "work bridge" to move equipment and materials to the construction area without impacting traffic.

Concerns that the additional pylons needed to support the temporary bridge might potentially trap debris during high-water events, which could lead to flooding, were reduced by selective placement of the temporary pylons. Hamilton Construction erected two \$1.2 million, 100-ton gantry cranes onsite to place steel beams up to 167 feet long and weighing up to 198,000 pounds. The cranes were supported by only 12 temporary pilings,

which reduced their potential to trap debris.

Once the eastbound bridge was completed, the team used the detour bridge as a work bridge to complete the westbound bridge. The detour bridge was then dismantled.

The project team obtained permits that extended their ability to work in the water during low-water periods, which made the project more efficient. The gantry-crane "top-down" construction method kept traffic flowing and allowed the project to maintain a tight timetable, shaving years off the project by allowing work to continue during high-water events.

The eastbound bridge also features a dedicated 16-foot wide bicycle and pedestrian path separated from traffic by a concrete barrier and fencing, and an additional pedestrian and bicycle under the freeway adjacent to Jordan Road.

Despite ongoing challenges, Hamilton Construction finished the four-year, \$92-million project in October 2014, well ahead of the original schedule.

"Every year, every season, it's a different river, a different challenge," Sullivan said. "We showed up on the job determined to get it done, even when the river changed overnight."

