

Communication

Hood Canal Bridge Project Team

The ultimate goal of the Hood Canal Bridge team is to administer a world-class project to replace the Hood Canal Bridge. Meet one of the people who make it all happen.



Blake Bridges, *Lead Inspector for pontoons YD, YE and YF, Hood Canal Bridge Team*

Blake Bridges joined the Hood Canal Bridge Project team a year and a half ago when pontoon construction began at Concrete Technology in Tacoma, Washington. Although Blake encountered many new construction issues while inspecting the pontoons, his past experience working for a large construction contractor as a quality control technician and as a materials tester, prepared him well for his first Hood Canal Bridge team position.

The knowledge Blake gained during the past year as an assistant inspector for pontoons PA and PB, together with his attention to detail, enabled him to take on additional pontoon construction responsibilities. Blake is now the Lead Inspector for pontoons YD, YE and YF for cycle two pontoon construction. He is responsible for:

- inspecting the pontoon form dimensions to ensure all of the pontoon rebar is the correct size, type and in the correct location in the pontoons
- updating the pre-pour checklist for each cell in the Y pontoons to make sure that everything has been completed
- coordinating the efforts of the three assistant inspectors who work with him

Blake's commitment to building a quality product is extremely valuable to the team's success and has helped the second cycle of pontoon construction move past the half-way point.

When not on the job, Blake likes to relax from the fast-paced work environment by spending time with his wife, Paige, and their Chesapeake Retriever, Reggie. His favorite activities include anything in the great outdoors; especially hunting, fishing and restoring his 1970 Bronco.

Project responsibilities: Pontoon cycle three construction including inspecting rebar, updating checklist and coordinating the efforts of assistant inspectors.

Questions? (253) 305-6436 or bridgesb@wsdot.wa.gov



Carpenters install box girder blockouts on pontoon NA, April 25, 2007.

Next Month's Activities

Cycle Two Pontoon Construction

- Pour concrete top slabs for all five pontoons
- Begin post-tensioning operations

Pontoons R, S and T Retrofitting

- Install new concrete girders between crossbeams
- Install pre-cast deck panel sections to prepare for road deck concrete pours

Anchor Construction

- Pour concrete for lower walls for all ten anchors

Anchor Setting

- Place first new east-half anchors on the bottom of Hood Canal

Hood Canal Bridge West-half Leak Detection System

- Begin installation of conduit in pontoons ZA and ZB

Hood Canal Bridge Retrofit and East-half Replacement Project

East-half Replacement

Completion Goal: 2009

West-half Retrofit Completion Goal : 2010

Q. Where is the bridge?

A. *The Hood Canal Bridge is located between Kitsap and Jefferson counties at the mouth of the Hood Canal.*

Q. Why is it important?

A. *It serves as a vital economic and social link between the greater Puget Sound and the Olympic Peninsula.*

Q. What is WSDOT doing?

A. *The Washington State Department of Transportation is improving this lifeline by replacing the east-half floating portion of the bridge, replacing the east and west approach spans, replacing the east and west transition truss spans and updating the west-half electrical system. The project completion estimate is 2010.*

Q. What can drivers do to stay informed?

A. *Sign up to receive the latest news regarding the Hood Canal Bridge Project and other related area transportation news in your e-mail. Visit www.hoodcanalbridge.com to subscribe.*

This report highlights updated Hood Canal Bridge Project information from **April 1 – 30, 2007.**

For more information about the Hood Canal Bridge Project visit the project web site, www.hoodcanalbridge.com, or contact project staff:

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Monthly Report

Hood Canal Bridge Retrofit and East Half Replacement Project



Crews complete anchor setting tests using a barge with a truss section that was specifically built for this operation, April 24, 2007.

Project Delivery

Anchor Setting Preparations

In April, the Washington State Department of Transportation (WSDOT) and contractor, Kiewit-General (K-G), began preparing for anchor placement at the Hood Canal Bridge site. The team focused on preparing the site, moving and testing equipment and surveying the bottom of Hood Canal. Accomplishing these tasks before May was critical to starting anchor placement on schedule.

Preparing the Site

At the beginning of April, crews placed buoys, lights and signs in and around Hood Canal. A marine advisory was issued notifying mariners on how to maneuver safely through the work zone.

Moving and Testing Equipment

After preparing the site, testing was completed on the anchor placement equipment. The barge was outfitted with a truss section fabricated specifically for handling the 56- and 46-foot diameter anchors. During late April, crews moved the barge into

Port Gamble Bay and completed a series of tests to confirm the barge's ability to lift up to 2,000 tons in weight. During this process, the global positioning system, tilt sensors and gyroscope monitors were tested to make sure they accurately verified the anchor's location and correct orientation on the canal bottom.

Surveying Hood Canal

The last week of April, crews began a clearance survey using another barge to map the location of the existing east-half anchors and any obstacles. This allowed crews to confirm specific anchor placement locations.

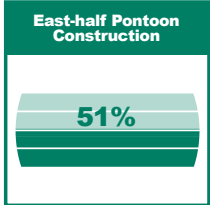
The Result

Through good planning and coordination, the crews completed anchor placement preparations on time. The first of ten new east-half anchors were towed to the bridge site from Port Gamble and were ready to be placed on May 1.

Accountability

Cycle Three Pontoon Construction Started

Cycle two pontoon construction is in full swing inside the Concrete Technology graving dock in Tacoma, Washington. Now crews have started pre-casting walls for cycle three pontoon construction in the work areas near the graving dock. This month, crews prepared for placing concrete in the wall sections for pontoons ZC and ZD, two bridge draw span pontoons.



K-G's decision to begin cycle three pontoon construction early was based on several factors:

- **Worker safety:** K-G believes that pre-casting the exterior walls while they are on the ground is the safest way to construct and handle the heavy embeds that are cast into the concrete. The bridge draw span pontoon walls have large steel tracks that are difficult to handle. Lying flat, reduces the risk of hazards associated with the large steel tracks falling.
- **Product quality:** Instead of placing the concrete into the tall forms while they are standing, K-G crews realized that more control could be achieved by placing the concrete in the walls while laying flat. This method enables K-G crews to produce level pontoon walls more easily.
- **Workforce efficiency:** Pouring the concrete now enables K-G to use the ironworkers for the second and third cycle of pontoon construction. Worker time is focused on construction efforts and not retraining the workforce.
- **Project delivery:** During this process K-G can reuse the flat wood wall forms saving both time and money to the project.

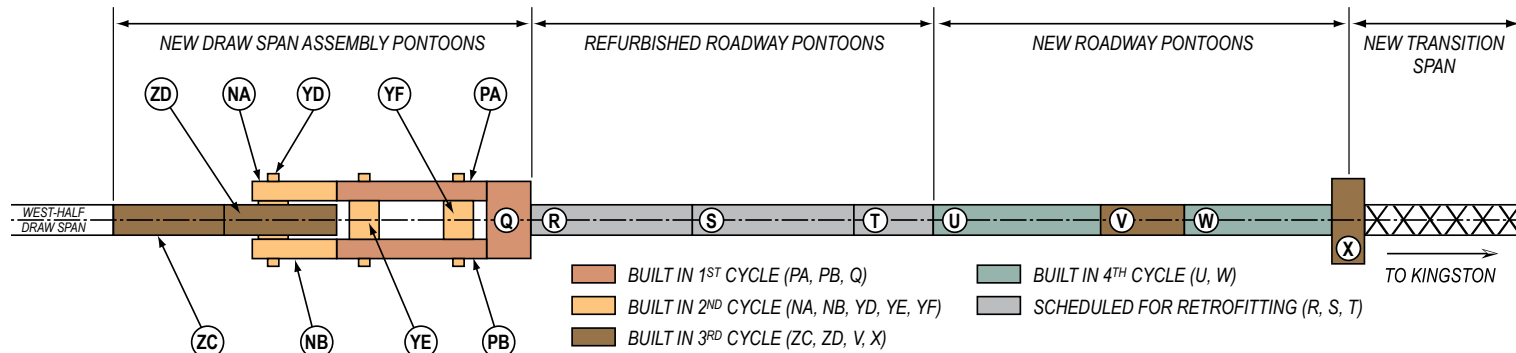
The pre-cast walls will be poured, cured and moved next to the graving dock. They will be ready to use once the second cycle pontoons are completed in July. K-G crews will then quickly set the walls allowing two draw span pontoons to be partially assembled in a matter of days. This work moves the project one step closer to meeting the May-June 2009 east-half bridge replacement date.



Workers prepare a casting bed for the concrete pour, April 18, 2007.



Laborers pour pre-casting beds for pontoons ZC and ZD, April 18, 2007.



Birds-eye View of New East-half

Performance Measures: Safety

Safety is a top priority for the Hood Canal Bridge Team. Each team member is committed to implementing and supporting WSDOT's safety philosophies:

- All workplace injuries are preventable
- All employees share the responsibility for workplace safety
- All employees must actively participate in reducing the risk and occurrence of workplace injury
- Employees work to establish a safety-first culture everywhere in WSDOT

Both WSDOT and K-G take deliberate steps to promote a safety-first culture and to prevent accidents. The following steps are part of an overall project safety plan:

- Daily morning crew meetings at each of the seven active construction sites before starting construction to review any new safety hazards for that day.
- Weekly discussions detailing the next week's efforts preparing for any new safety concerns.
- Daily incident tracking to document issues and quickly resolve them.

Keeping the team safe is essential to personal and team success, and is challenging during construction start-up operations. April's safety record is:

Location	Hours	Reportable	Frequency	Recordable	Frequency*
Bridge Site/Port Angeles	400	0	0	0	0
Concrete Technology	30,719	0	0	0	0
Todd Pacific Shipyards	15,346	0	0	0	0
K-G Total	46,465	0	0	0	0
Subcontractors	2,799	0	0	0	0
COMBINED TOTAL	49,264	0	0	0	0

Construction industry national average Recordable incident rate = 7.9 per 200,000 manhours

Project to Date Statistics:	839,732	43	10.24	11	2.62
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Financial Status

Project Cost Summary

Period Ending April 30, 2007

CATEGORY	BUDGET	EXPENDED
Original Commitments		
Port Angeles	\$83,000,000	\$82,877,940
Bridge Site Work	\$41,463,000	\$41,614,193
Work in Progress	\$81,600,000	\$68,187,025
Subtotal Original Commitments	\$206,063,000	\$192,679,158
Modified Commitments		
WSDOT Construction Management	\$32,036,000	\$10,491,636
Bridge Closure Mitigation	\$9,644,000	\$607,004
New Facilities & Bridge Completion	\$223,225,000	\$90,835,000
Subtotal Modified Commitments	\$264,905,000	\$101,933,640
Project Total	\$470,968,000	\$294,612,798

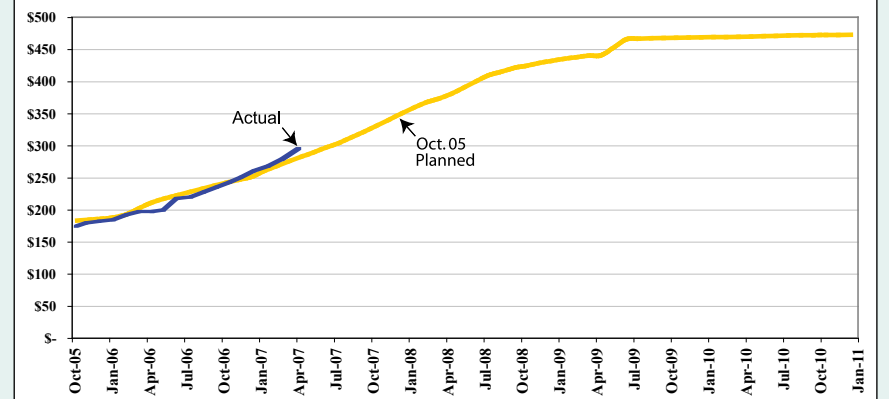
Source: WSDOT Hood Canal Bridge Project Office

Note: April 2007 data is an estimate of costs prior to the accounting month close on May 11, 2007.

Planned vs. Actual Expenditures

Period Ending April 30, 2007

Total Project Cost, Dollar (millions).



Source: WSDOT Hood Canal Bridge Project Office

Injury Types Reportable and Recordable

Eye Injuries	20
Fracture	2
Muscle Strain	16
Shock	1
Insect Bite	1
Sliver	1
Laceration	2

Injury Causes

Environmental Conditions	15
Lack of or inadequate PPE	8
Faulty Equipment	2
Body Defects	2
Inattention	9
Not Following Directions	7