

## 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.



**Kent Werle**, Kiewit-General General Superintendent, Hood Canal Bridge Team

Kent Werle, K-G General Superintendent at the Seattle construction sites, brought 30 years of bridge and marine construction knowledge with him to the Hood Canal Bridge Project. Kent previously worked as a manager and superintendent on the construction of various bridges; including, the Sacramento River Bridge, the Tacoma Narrows Bridge Foundation

Caissons and the West Seattle Swing Bridge. His knowledge in marine construction also includes dock, trestle, pier and wharf construction, pile driving and drilling, ground improvement and water runoff system installation.

This strong bridge and marine background has given Kent the skills and abilities to succeed in his many duties on the Hood Canal Bridge Project. Kent also admits that being in the Army taught him discipline and prepared him for working on jobs as complex as the Hood Canal Bridge Project.

Kent is heavily involved with marine logistics and coordination. He played a key role in the first cycle pontoon float-out, the pontoon tows from Tacoma to Seattle's Pier 66 and towing of pontoons R, S and T from Port Gamble Bay to Seattle's Terminal 91. His duties include general support for the logistics of moving the pontoons and anchors, pontoon assembly and bridge, anchor and anchor cable installation.

Kent enjoys spending time with his wife of 34 years, Elspeth and their four children. They currently have two children out on their own and two children still in school; one in high school and one in college. When not spending time with them, he likes to work on their "family farm."

*Project responsibilities:* Marine logistics and coordination, pontoon assembly and bridge, anchor and anchor cable installation.

*Questions?* (206) 624-0573 or kent.werle@kiewit.com

## Next Month's Activities

### Pontoons

- Continue flat panel and corner form construction for second cycle pontoons.
- Remove buoyancy frames and floats (flexi-floats) from pontoons PA, PB and Q.
- Set roller guides panels on pontoons NA and NB.
- Install post tensioning ducts on pontoon NB.

### Anchors

- Complete concrete pours for all 10 lower anchor walls.
- Install remaining Hawse pipes (metal tubes where anchor cables wrap around anchors).
- Pour concrete for first anchor upper wall spokes.

### Hood Canal Bridge West-half Leak Detection System

- Install conduit in pontoons LA and LB.
- Install wire in pontoon K.
- Perform system test on pontoons B-J.

## 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 inbox. Visit [www.hoodcanalbridge.com](http://www.hoodcanalbridge.com) to subscribe.*

This report highlights updated Hood Canal Bridge Project information from **December 1-31, 2006.**

For more information about the Hood Canal Bridge Project visit the project web site, [www.hoodcanalbridge.com](http://www.hoodcanalbridge.com), or contact project staff:

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Washington State  
Department of Transportation

## Monthly Report

EAST-HALF REPLACEMENT COMPLETION GOAL: 2009  
WEST-HALF RETROFIT COMPLETION GOAL: 2010

December 2006

## Hood Canal Bridge Retrofit and East Half Replacement Project



Workers prepare for the first cycle pontoon float-out. December 5, 2006

## Project Delivery

### First New Hood Canal Bridge pontoons Start Their Life on the Water

Three new pontoons, constructed in only nine months, floated out of the Tacoma Concrete Technology graving dock early Wednesday, Dec. 6, 2006. Fifteen feet of water filled the graving dock, lifting up the 6,000+ ton structures. Once the pontoons were floating, tug boats towed the pontoons out of the graving dock and moored them in the Blair Waterway. pontoons PA and Q were then towed to Seattle on December 18. Pontoon PB followed on December 26. All three pontoons safely arrived at Pier 66 in Seattle and will remain there through the end of summer 2007.



Here is how the float-out process worked:

### DECEMBER 5, 2006

10:08 p.m.

*Float-out began*

Work began to prepare the pontoons for floating out of the graving dock. The graving dock dewatering system and pump station were shut down.

10:57 p.m.

*Graving dock gate valve opened*

The graving dock gate valve was opened. Water then flooded from Blair Waterway through the open gate into the graving dock. As the tide rose, water surrounded the pontoons, causing them to float.

**Project Delivery, continued**

**DECEMBER 6**

**12:18 a.m.**

*Pontoons inspected*

While water slowly came through the gate into the graving dock, about 50 WSDOT and Kiewit-General (K-G) inspectors checked all 105 cells in the three pontoons for minor leaks.



1:07 p.m.

**1:07 p.m.**

*Water filled the graving dock*  
Approximately one foot of water had entered the graving dock by this time. Crews continued to work diligently to inspect all the pontoon cells to ensure they were water-tight.



2:15 a.m.

**2:15 a.m.**

*Crews inspected towing and mooring equipment*  
Crews prepared for towing by inspecting mooring and towing lines. All 105 pontoon cells had been inspected at least once. The tugs arrived at the graving dock to be inspected and prepare for towing. About three feet of water had filled the graving dock.

**2:45 a.m.**

*Tugs moved into place*

Two tug boats moved into place to remove the gate from the graving dock.

**4:14 a.m.**

*Gate towed*

Two tug boats tied up to the graving dock gate and prepared to remove it.

**4:45 a.m.**

*Tug positioned to tow pontoon PB, hatches closed*

A tug boat moved into position to tow the first pontoon out of the graving dock. Crews closed hatch covers after inspections were completed for each cell.



5:45 a.m.

**5:45 a.m.**

*Pontoon PB towed*

The first pontoon, pontoon PB, was towed out of the graving dock.

**6:01 a.m.**

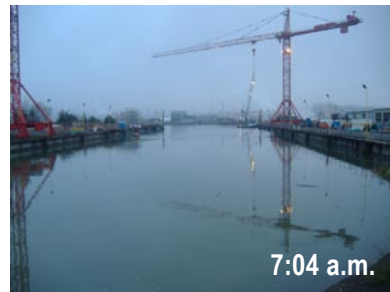
*Pontoon PA towed*

The second pontoon, pontoon PA, was towed out of the graving dock.

**6:15 a.m.**

*Pontoon Q towed*

The third pontoon, pontoon Q, was towed out of the graving dock.

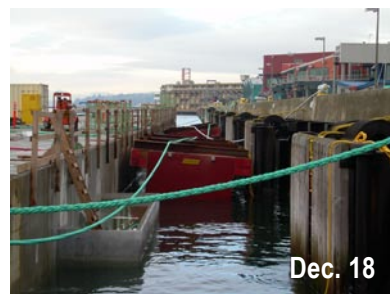


7:04 a.m.

**7:04 a.m.**

*Float out completed*

The float-out of the first three pontoons for the Hood Canal Bridge east-half was completed.



Dec. 18

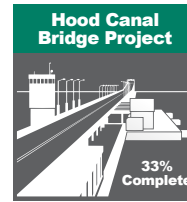
**DECEMBER 18**

*Pontoons PA and Q were towed and moored at Seattle's Pier 66.*

**DECEMBER 26**

*Pontoon PB was towed and moored at Seattle's Pier 66.*

**Accountability**



The Hood Canal Bridge Project is now 33 percent complete. Accomplishing the first pontoon float-out is another step toward providing drivers with a bridge that is wider, safer and more

affordable to maintain. Completing construction on these pontoons is an important project milestone leading up to the May-June 2009 bridge closure and replacement.

WSDOT and K-G lead the world in floating bridge technology. Construction of the first three of 14 Hood Canal Bridge pontoons was completed in nine months. The team successfully worked its way through a variety of engineering challenges to deliver these pontoons. Good planning and continuous improvement in work techniques contributed to the work being done earlier than anticipated, giving the project a little extra time in the future to handle unexpected challenges, should they arise.

The completed east-half pontoon roadway sections and fully assembled east-half draw span will be floated into place during the bridge closure in May-June 2009.

**Performance Measures: Environmental Stewardship**

WSDOT and K-G protect the environment surrounding each construction site by watching for spills, inspecting equipment, creating emergency response plans and being prepared for environmental incidents. Each individual site focuses on meeting environmental compliance requirements.

**Concrete Technology Corporation, Tacoma**

The focus of environmental efforts centers on managing and treating water. A water handling system collects, retains and treats water inside the graving dock before it is pumped out. This system is inspected regularly and water quality tests are conducted monthly to maintain project environmental standards. No environmental incidents occurred at this site in 2006.

**Todd Pacific Shipyards, Seattle**

The dry dock used for anchor construction at Todd Pacific Shipyards is located on Elliot Bay in Seattle. In this marine environment, the focus of environmental efforts also centers on managing and

**Financial Status**

**Project Cost Summary**

*Period Ending December 31, 2006*

CATEGORY	BUDGET	EXPENDED	% COMPLETED
<b>Original Commitments</b>			
Port Angeles	\$83,000,000	\$82,877,940	99.9%
Bridge Site Work	\$41,463,000	\$40,340,337	97.3%
Work in Progress	\$81,600,000	\$67,870,217	83.2%
<b>Subtotal Original Commitments</b>	<b>\$206,063,000</b>	<b>\$191,088,494</b>	<b>92.7%</b>
<b>Modified Commitments</b>			
WSDOT Construction Management	\$32,036,000	\$8,168,579	25.5%
Bridge Closure Mitigation	\$9,644,000	\$505,669	5.2%
New Facilities & Bridge Completion	\$223,225,000	\$58,737,981	26.3%
<b>Subtotal Modified Commitments</b>	<b>\$264,905,000</b>	<b>\$67,412,229</b>	<b>25.4%</b>
<b>Project Total</b>	<b>\$470,968,000</b>	<b>\$258,500,723</b>	<b>54.9%</b>

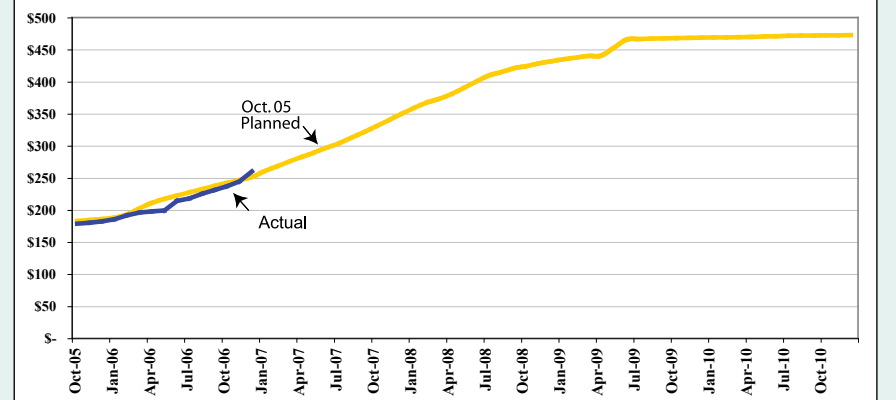
*Source: WSDOT Hood Canal Bridge Project Office*

*Note: December data is an estimate of costs prior to the accounting month close on January 10, 2007.*

**Planned vs. Actual Expenditures**

*Period Ending December 31, 2006*

*Total Project Cost, Dollar (millions).*



treating water. The dry dock sides keep storm water and construction water runoff within the dock. The water is then transported into a large holding tank where it is tested and, when needed, treated to meet established criteria. No environmental incidents occurred at this site in 2006.

**Hood Canal Bridge**

All in-water and land work at the bridge site that was guided by environmental regulations was completed in November in accordance with permit conditions. Even after the severe winter storms this year, the storm water collecting and filtering systems held firm. Two environmental incidents occurred at this site in 2006. Both were quickly resolved and reported to the appropriate agencies.

**The Project**

Throughout the remainder of the Hood Canal Bridge project, WSDOT, K-G and the subcontractors will continue their dedication to environmental stewardship by meeting environmental requirements.