Washington State Department of Transportation
SR 520 Bridge Replacement and HOV Program
999 3rd Avenue, Suite 900
Seattle, WA 98104

SR 520 construction in Medina

View looking east at construction activities for the floating bridge near Medina.

Ever wonder what you're looking at as you pass by SR 520 construction near Medina?

Use the guide below to identify key project areas as seen in February 2013. Read on to learn more about floating bridge construction activities.

- **A Evergreen Point Road lid**
- **B Pier 3 wall**
- **C Pier 2 columns**
- **D Pier 1 and cofferdam**
- **E Pontoon W final alignment**
- **F Pontoon staging area**

Washington State Department of Transportation

SR 520 Bridge Replacement and HOV Program

STATE ROUTE 520

I-5 to Medina: Bridge Replacement and HOV Project

May 2013

Floating bridge and landings construction update

Boating season

Temperatures are warming up and boaters are getting ready to set sail on Lake Washington. This means drivers should prepare for additional drawspan openings. Sign up for text message or email alerts of drawspan openings so you can better plan your travel. Visit our drawspan page for more information: www.bit.ly/520Drawspan

Pontoon repairs

Following thorough analysis by an expert review panel, WSDOT has begun implementing repairs for the first cycle of pontoons built in Aberdeen. Crews will add transverse post-tensioning and make all necessary repairs to ensure a 75-year life for the new floating bridge. Learn more on our website: www.bit.ly/520ProgressUpdate

More information

Construction hotline: 425-576-7098

E-mail: SR520Bridge@wsdot.wa.gov

Visit the website:
www.wsdot.wa.gov/Projects/SR520Bridge

Mail: Washington State Department of Transportation
SR 520 Program Office
999 3rd Avenue, Suite 900
Seattle, WA 98104

Progress continues on the new SR 520 floating bridge. More than 275 workers across the state are moving the project toward completion. Some key milestones since we last checked in include:

- On Lake Washington, crews finished setting the last of 58 anchors for the new floating bridge.
- In Medina, the bridge's first roadway section was poured as pier construction moved ahead.
- In Tacoma, another six supplemental pontoons were completed in January and construction of eight more pontoons is in full swing.

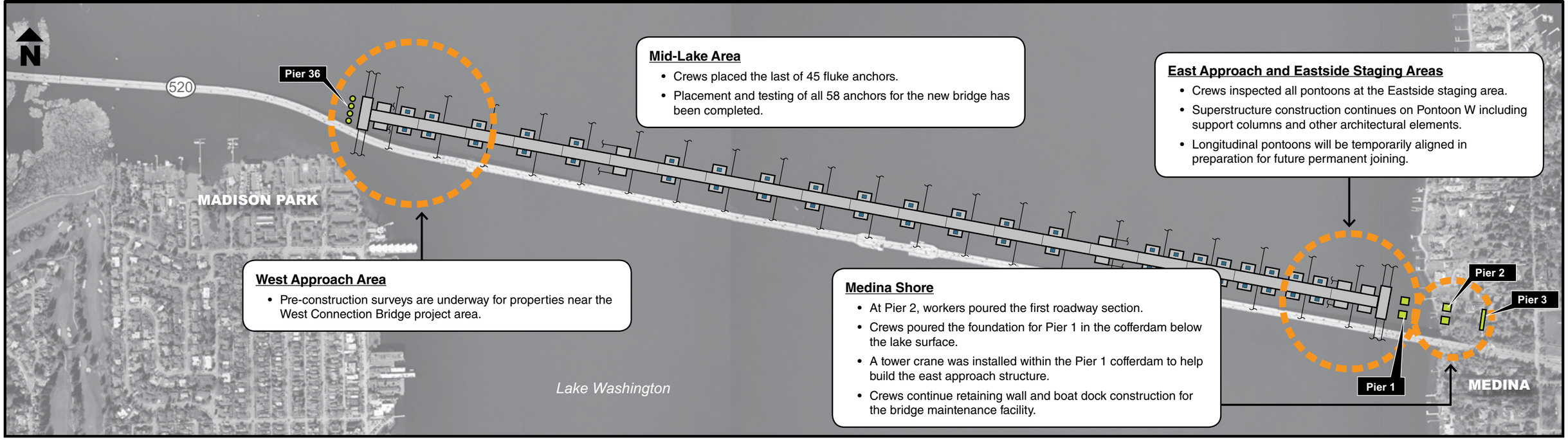
Read on for details about these activities and more. You can always get the latest construction updates, including photos and live construction cameras, on our website at www.wsdot.wa.gov/Projects/SR520Bridge/BridgeAndLandings.

In March, floating bridge workers took a few moments for a group photo in front of the last anchor for the new floating bridge before lowering it nearly 200 feet to the bottom of Lake Washington.

Washington State Department of Transportation

U.S. Department of Transportation
Federal Highway Administration

Lake Washington construction highlights



Where else are we working?

Work for the new floating bridge is taking place throughout the state.

Tacoma

Between Jan. 29 and 31, six supplemental pontoons were floated out of the casting basin. Two of these pontoons were towed to Lake Washington and will be joined to larger longitudinal pontoons. The remaining four pontoons are being temporarily moored in Tacoma. Watch a time-lapse video of the float-out process at www.bit.ly/520Videos.

Workers climb with ropes and harnesses to tie rebar on a supplemental pontoon currently under construction in Tacoma.

Crews are already building the next cycle of eight supplemental pontoons. Forms have been installed and pontoon walls are being poured. Follow along on our real-time construction camera as we build these next pontoons: www.bit.ly/520Cameras.

Kenmore

Concrete elements, like the dock for the bridge maintenance facility, are being constructed in Kenmore and barged to the floating bridge site. Looking ahead to the summer months, crews will begin using a recently completed casting facility to form and pour roadway deck panels for the new bridge. Learn more about Kenmore activities on our website: www.bit.ly/520Kenmore.

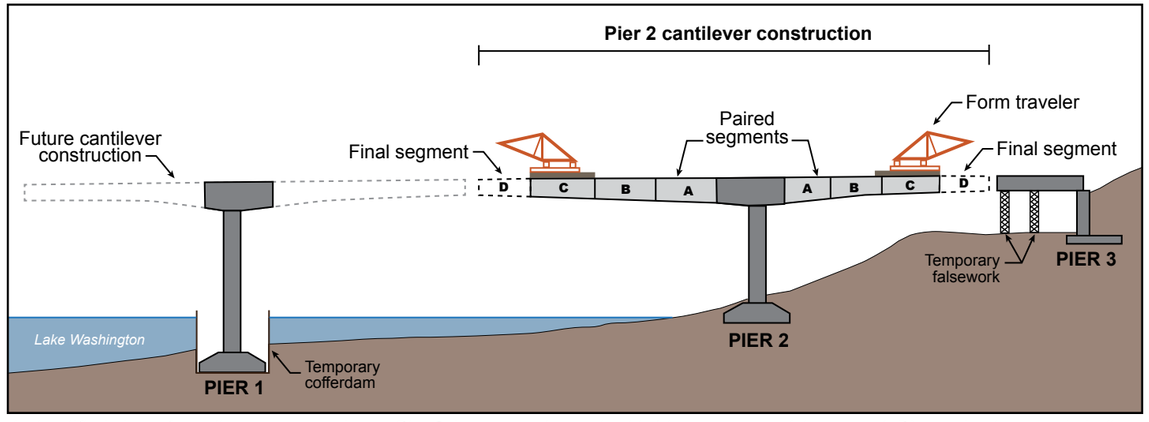
Cantilever construction

In Medina, three piers will support the elevated roadway that connects the floating bridge to land (see map above). With obstacles such as lake water and steep slopes, typical construction techniques aren't up to the task. To overcome these challenges, engineers are using a clever solution that seems to defy gravity.

Called "balanced cantilever" construction, crews work simultaneously on both sides of a single pier to add new bridge segment pairs. Two mobile cranes or "form travelers" are used to cast the concrete bridge segments. By mirroring construction on both sides of the pier, the weight of one added roadway segment is carefully balanced by the weight of another. The pier acts as the central balance point as the bridge extends outwards on both sides.

In Medina, balanced cantilever construction will begin at Pier 2 and simultaneously extend outwards towards Piers 1 and 3. As construction continues, the roadway will appear to levitate in the air. This cantilever process will then be repeated at Pier 1 until a seamless roadway spans across all three piers.

You'll watch this unfold in real time as you travel across the floating bridge in the months ahead. Stay tuned for photo updates on our Flickr site as construction continues: www.bit.ly/520Photos.



A simplified view of cantilever construction at Pier 2. In succession, paired bridge segments (shown as A-D) are simultaneously built on both sides of Pier 2. This cantilever process will later be repeated at Pier 1.