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WINTER



## Innerbelt Bridge Contributes Sustainable Fish Habitat

As the Cuyahoga River continues to improve, increasing populations of fish migrate through the lower 5.5 miles (known as the Ship Channel) between the Lake and spawning grounds upstream.

The ship channel is dredged to 23-foot-deep and the banks are typically lined with sheet steel bulkheads – which provide room for the lake freighters to deliver bulk cargo to key industrial sites along the river – but the bulkheads provide little environmental benefit for fish or birds.

Pocket habitat sites or “Green Bulkheads” were developed by the Cuyahoga River Remedial Action Plan as a way to provide locations for shelter, food and rest areas for migrating juvenile fish.

As part of its environmental commitment to the Cuyahoga River, ODOT is constructing a pair of the pocket habitats under the new span of the Innerbelt Bridge. The pockets, accessible for fish through slots in the bulkhead walls, will provide native plants and protected areas for migrating fish.

Rivers in their natural condition regularly create such protected areas as part of their natural bank shape. The ODOT Green Bulkheads should provide welcome respite areas for migrating fish.

This article was prepared by guest contributor, Jim White – Director of Sustainable Infrastructure Programs for the Cleveland-Cuyahoga County Port Authority.



Top: Carpenters, ironworkers and laborers all play a role in preparing this bridge (I-90 west over E 9th St) for pouring the concrete deck. Bottom: Carpenters work to assemble the pier cap forms on Pier 13.

## Construction Progress Report

I-90 commuters in downtown Cleveland can breathe a sigh of relief—the downtown highway bridge construction work was completed 10 days early. In spite of weather delays at the beginning and end of the typical construction season, crews accomplished all of the planned work for the 2011 construction season before the December 1 milestone. Cleveland had more than 60 inches of precipitation, but the workers pressed on and managed to meet the deadline with days to spare.

The crews accomplished the rehabilitation and redecking of the bridges that carry all I-90 lanes over E 14th Street, the I-77 south ramp and E 9th Street. Crews also expanded the ramps from I-90 west to I-77 south and from I-77 north to I-90 east. The bridge that carries I-71 south over Starkweather was also renovated this year. The pavement on all of these bridges was worn and the structural

improvements will ensure the reliability of these bridges for years to come.

While the “little bridge” crews were busy in downtown and Tremont, the Main Viaduct workers drove pile foundations for 10 bridge piers and one entrance ramp on the east side of the river. Four of those piers will be complete by our publication date; four more will have crews working on columns (legs of the pier). Pile driving for the two remaining piers is nearly complete and foundation footers will be poured in the coming weeks. Crews also began to drive the pile for a new bridge over E 9th Street; it will carry the ramp traffic from E 14th Street to I-90 west.

The Innerbelt project is ON schedule. The crews have come back from the holidays, rested and ready to start the 2012 work!



# CONSTRUCTION Connection

## Winter Construction - Challenging, But Necessary!

Many people have assumed that the Innerbelt Project will be mostly dormant during the winter months. On the contrary! Crews are hard at work completing the major bridge piers that will carry the Main Viaduct across the river and the lower level Flats region on the east bank.

*Over the next three or four months, most of the remaining east bank bridge piers will be completed.*

While winter weather makes it more difficult, crews can continue to drive H-piles – the long, steel beams driven into the ground which support the new bridge – and concrete can still be placed for the bridge piers' foundation footers, columns and caps. Over the next three or four months, most of the remaining east bank bridge piers will be completed. The schedule for



Piers 9 through 5, nearing completion. These piers are located between W Third Street and the river, viewed from the Lorain-Carnegie Bridge.

pier completion matches the plan for installing the structural steel, called "Delta Girders," coming in the spring.

### West Bank Bridge Work Begins

Work on the west bank bridge piers will begin in late January. Crews will begin by making adjustments on

the W 14th Street exit ramp, shifting it closer to the existing bridge and installing shoring along the edge of the ramp to protect it during the continuing bridge pier construction. Once the W 14th ramp is prepared and reopened, the Abbey Loop ramp will be closed so that construction of the new Abbey Loop ramp and the bridge piers can continue in that general area. Access to Abbey Avenue will be maintained throughout the construction in the area and access to Tremont will be very easy via W 14th Street.



Pier 12 on January 6. Crews have backfilled around the foundations and the column sections are complete.



Continue to Excavate Tremont Bluff between Abbey Avenue & River

Continue Work on I-90 West Bridges over Starkweather & Kenilworth

Begin Work on Main Bridge Piers in Tremont

Begin Reconstruction of Abbey Loop Ramp

Continue Building Main Bridge Piers on East Bank

Continue Work on New E 9th Extension Roadway

WINTER/SPRING 2012

I-90 Overpasses in Tremont

Crews have begun work on the new I-90 west bridge over Kenilworth; this bridge will have two new piers added, totally new pier caps and new structural steel. The work on this bridge began bright and early on January 3, a great way to begin a new year of construction on this great project. Crews have begun some of the preliminary work on the I-90 west bridge over Starkweather as well. They are installing steel plates that strengthen the existing girders and extend their service life.

Smaller Work Crews, Still Hard at Work

Winter's cold weather does not interfere with most of these tasks, although snow, ice or high winds can create problems for some activities. At the peak of the construction season during the summer and fall, the project averaged more than 260 trade workers employed. The winter employment average varies between 75 and 100 trade workers. While there are fewer workers on the job, they continue to accomplish the critical steps that will keep this project on schedule!



Part of Pier 13 on October 26. The foundation is cured and the columns have just been poured.



Carpenters began installing cap forms on Pier 12 on January 11.



Pier 13 is complete on January 11.



Pier 12 on January 24. Ironworkers are installing rebar for the pier cap. The top of the pier cap will be six to eight feet higher than the top of the rebar visible here.



Crews removed the pavement from half of the I-90 west bridge over Kenilworth on January 24.



November 2011



February 2012





Worker using a jackhammer to remove the old pier cap at the I-90 west/Kenilworth bridge (left).

The new I-90 west/Kenilworth bridge will be wider. Here, workers are forming the extension of the abutment that will support the south end of the new bridge (center bottom).

Next step for Pier 12 - the cap is poured on February 3 (bottom right).



## HOW TO STAY IN TOUCH

- ▶ Visit our website at [www.Innerbelt.org](http://www.Innerbelt.org). You can subscribe to our email list on our homepage.
- ▶ Email us at [Info@Innerbelt.org](mailto:Info@Innerbelt.org)
- ▶ Call the Project Hotline at (216) 344-0069 (toll free (855) 803-5280).
- ▶ You can find us on  by searching "Cleveland's Innerbelt Bridge"
- ▶ You can follow us on  @ODOT\_Innerbelt

## Economic Inclusion & Impact

From its inception, the Ohio Department of Transportation understood that the Innerbelt Bridge Project, the largest transportation project in Ohio history, presented an opportunity to ensure that the Cleveland Plus community would gain direct economic benefits. To that end, they made certain that the procurement process was both transparent and equitable. ODOT established diversity goals that would result in the active engagement of minority and women owned firms which have been economically disadvantaged.

The ODOT team and Walsh Construction's design/build team are on track to exceed the 15 percent Disadvantaged Business Enterprise (DBE) participation goal for the Innerbelt Project. To date, more than 38 DBE firms have been contracted to work on the project as construction contractors, material suppliers, engineering/service providers and trucking firms, representing over \$44 million of this \$287 million

project. The project has welcomed newly certified DBE firms such as Royal Landscape Gardening Inc. and G. Stephens Inc.

Since receiving their DBE certification in 2011, Royal was awarded their first contract for an ODOT project for landscaping and pavers. G. Stephens is responsible for compliance monitoring on the project; they received their certification in 2011, as well. Additionally, there have been over 70 apprentice/trainees hired by Walsh Construction for the Innerbelt Bridge Project, representing over 30,000 work hours to date. These apprentices and trainees are both blue- and white-collar workers and include 32 female and/or minority apprentice/trainees.

"We are proud of the accomplishments and economic impact on our community," said Randy Over, ODOT's District Construction Engineer for the Cleveland region. "The entire Innerbelt Bridge Team hopes to do more than build a bridge – we want to provide opportunities for economic growth within our community."



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