# WALTERDALE BRIDGE REPLACEMENT PROJECT

## OCTOBER 2015 UPDATE

Construction on the new \$155 million Walterdale Bridge began in January 2013. The signature arch bridge will feature two 54-metre tall arches (equivalent to a 13-story building).

The new Walterdale Bridge is scheduled to open in 2016, and the century-old Walterdale Bridge demolished in 2017.

WALTERDALE SITE-AUGUST 2015

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#### **ABORIGINAL CONSULTATION**

• The project team has consulted with 21 Aboriginal communities throughout Alberta. Aboriginal groups continue to monitor pertinent excavation and in-river construction activities.

#### BUDGET

- The bridge is on budget, with a cost of \$155 million (plus \$2.5 million in concept and preliminary engineering work).
- Although the project is experiencing a one-year schedule delay, the budget remains unaffected, as the City's construction contract contains provisions to offset delay costs. This project management approach transfers the risk of the delay to the contractor.

#### **PUBLIC INVOLVEMENT**

• A public involvement process began in 2010, with public meetings held from 2010-2013.

#### STEEL

- All arch steel is now on site.
- The project team is awaiting some steel for the bridge deck and shared-use path.
- The bridge deck pieces are currently being coated and prepared for shipping in Korea.





## **GETTING THE ARCHES INTO PLACE**

The completed bridge arches will span 206 metres and be 54 metres tall (about as high as the High Level Bridge).

The central arch segments have been assembled on the south side. They will be moved along tracks before being transferred to barges on the river. Once on the barges, the central segments will be floated across the river until one side of the arch rests on each berm.

Temporary red lift towers installed on the berms will then lift the arches into place on top of the thrust blocks. An animated arch lift video is available at **edmonton.ca/walterdalebridge.** 



### ARCH FLOAT AND RIVER DREDGING

- The central arch steel will be floated across the North Saskatchewan River on barges.
- Since the river needs to be at least 2.1 metres deep in order to float the barges across, the contractor dredged the river bed. Equipment included a long boom excavator working from the barges and an amphibious vehicle with a small boom excavator and hose that sucked up water and dirt from the river bottom.
- The retrieved sediments will be used as fill in Queen Elizabeth Park on the south side of the river.



## PROGRESS

In 2015, Edmontonians have seen a lot of change on site as the new bridge comes together.

2015/16

- Complete thrust blocks and backfill cofferdams.
- Receive arch steel on site.
- Complete tracks in laydown area.
- Assemble arches.
- Lift arches.
- Construct bridge deck, and connect it to the arch.
- Connect roads to new bridge alignment.
- New bridge scheduled to open.

2017

- Remove old bridge.
- Complete landscaping and trail connections.
- Open trails to pedestrian/cyclist traffic.

## **QUICK BRIDGE FACTS**

- Weight of the heaviest arch piece: 125 tonnes
- Amount of earth moved to date during construction: about 130,000 metres cubed
- Number of bolts in each of the 42 arch pieces: over 1,500
- Weight of the central arches when they will be floated across the river: about 950 tonnes

For FAQs, bimonthly project updates and more, visit edmonton.ca/WalterdaleBridge.

## **BRIDGE FOUNDATIONS** THRUST BLOCKS AND DECORATIVE ELEMENTS

Thrust blocks are large concrete foundations that anchor the arches and carry the bridge load. The new bridge has four thrust blocks (two on each side of the river). The thrust blocks were built in stages to secure the foundation to the deep bedrock below. Each completed thrust block is 10 metres across and buried 20 metres below the road.

Decorative elements of the new bridge abutments include a set of parallel lines stamped into the concrete that show historic river flood levels over the past century. Once the bridge is completed, these lines will feature metal plaques with the flood dates for pedestrians to read as they stroll across the bridge and adjacent trails.





SITE WORKER ON THRUST BLOCK

