

Southwest Calgary Ring Road Construction Includes Realignment of One-Percent Length of Elbow River

After decades of negotiation, the Southwest Calgary Ring Road (SWCRR) is now under construction. Discussion about a ring road around the city began in the 1970s, when the population of Calgary was about 325,000. By 2013 the city's population had multiplied four times to more than 1.3 million people. And while talks continued about the southwest portion of the road, a 70-kilometre stretch of ring road was completed northwest, northeast and southeast of the city.

In November 2013, the Government of Alberta and the Tsuut'ina Nation signed a land transfer agreement that would allow the SWCRR to be built. This piece of the city's 100-kilometre-plus ring road will run from Highway 8 (near Elbow Springs Golf Course) to McLeod Trail SE. The 31-kilometre stretch of six- and eight-lane divided highway will include 47 bridges – including crossings over the Elbow River and Fish Creek – and 14 interchanges. (For more information on the SWCRR, visit <http://www.swcrrproject.com/>).

Construction partnership Kiewit Graham Leducor (KGL Constructors) is charged with designing and building the southwest ring road. As part of the project, KGL will work with Golder Associates to realign a 1.4-kilometre stretch of the Elbow River in the Transportation Utility Corridor west of 37 Street SW.

Elbow River advocates are concerned about the effect the new road will have on the river and surrounding environment. Two aspects of the project are of the most concern to members of the Weaselhead Glenmore Park Preservation Society (WGPPS): First, the ring road will cross the southwest corner of Weaselhead Park, affecting eight hectares of park land. Second, design of the ring road involves the realignment and rechanneling of the Elbow River to accommodate new traffic lanes.

Lisa Dahlseide, a naturalist with the WGPPS, said the group fought for more than 20 years to keep the ring road from crossing sensitive wetlands in the Weaselhead. "We lost the fight," she said. "Now our big goal is to fight for the best road possible."

Dahlseide said that initially the ring road was to cross a critical wetland in Weaselhead Park, but she applauds Alberta Transportation for changing that part of the project's design. The road will now pass to the west of a beaver pond in the park. "We're still concerned about salt spray," she said, "but at least [the beaver pond] won't get filled in. That was a big win."

Another "win" is that the effects of runoff from the new road were addressed in the environmental assessment of the SWCRR; however, Dahlseide notes that there has been no talk of mitigating airborne contaminants such as salt. Amphibians and aquatic invertebrates are not salt-tolerant, she said, and are vulnerable to changes to their habitat. The WGPPS would like the project to include a state-of-the-art sound barrier, which would protect biodiversity in the park as well as act as a physical barrier to wildlife.

Perhaps the biggest concern around the project, though, centres on the realignment of

approximately one percent of the total length of the Elbow River. The new realignment will see the braided, meandering river directed into a single channel for 1.4 kilometres with the river valley cut and filled on either side to allow for a traffic crossing.

Ann Francis, environmental coordinator with KGL, said construction of a new channel for the realigned portion of the river is the biggest focus of the ring road project. “A great deal of effort went into making sure the realignment mimics the river’s previous channel,” Francis said, adding that the goal is to closely match the river’s morphology, gradient and flow characteristics in the new channel. Bioengineering techniques will also be used to mimic vegetation in the new channel.

KGL describes bioengineering as a technique that “integrates living woody and herbaceous materials with organic and inorganic materials to increase the strength and structure of the soil (e.g., for streambank stabilization) while blending into the natural environment.”

The river realignment involves dredging a new channel to direct the flow of the meandering Elbow River. Storm water ponds will be located north and south of the realignment. The plan is to build and maintain plugs at both ends of the new stretch of river and, according to KGL, the Elbow will remain undisturbed until the plugs are removed.

In March and April of 2017, KGL plans to complete bioengineering on the newly dredged channel. The company says it will ensure bioengineering and riparian planting are established before water is released into the new channel, likely around April 2018.

Ian McColl, public relations manager for KGL Constructors, says the goal is for the new channel to be “comparable and equal to what’s currently existing.”

Josh Bolderheij, an engineer involved in the SWCRR project, agreed, saying the new realignment would attempt to replace “like for like.” Bolderheij acknowledged that the river will have to be managed, for example with spurs along the east bank similar to the spurs along the Bow River near Bowness Park. “At the end of the day, we can only do so much in respect to what Mother Nature is going to do,” he said.

KGL is responsible for monitoring the success of its bioengineering during work on the SWCRR project and for monitoring water quality until five years after the project is complete.

In a statement on its website about ring road concerns, WGPPS notes that limiting the meandering of the Elbow into a new channel could “alter the ecosystems, biodiversity, water quality, fish habitat and more, while reducing forest rejuvenation and increasing risk of forest fires over the long-term.” It also cites concerns about negative effects on water quality and on parks, the local community and wildlife.

“I don’t think they [Alberta Transportation] understand how unique the Elbow River is,” WGPPS’s Dahlseide said. She added that designers may be underestimating the power of the river, especially in times of flood. “I don’t think that’s wise.”

The Southwest Calgary Ring Road is expected to be open to traffic in 2021.

For a map of the river realignment, see:

http://www.swcrrproject.com/wp-content/uploads/2016/11/Info-Session_Segments_FINAL_REV-3_Seg-2_Dec-2016.pdf

To download information about the WGPPS's concerns about the ring road, visit:

<http://theweaselhead.com/ring-road/>