



102 AVENUE OVER GROAT ROAD BRIDGE REPLACEMENT FAQ

WHY IS THE BRIDGE BEING REPLACED?

The bridge has reached the end of its lifespan and a new structure is needed.

HOW WAS THE BRIDGE TYPE SELECTED?

The design team considered: the future needs of 102 Avenue and surrounding neighbourhoods; site characteristics; environmental impact; constructability; maintenance effort; traffic impact during construction; and cost in choosing a bridge type.

WHAT IS THE TOTAL SCOPE OF WORK FOR THE PROJECT?

Work includes:

- Installation of a drainage drop shaft structure on the southeast side of the bridge (completed in 2013);
- Demolition of the existing bridge;
- Replacement of the existing bridge with a new single span bridge;
- Stabilization of existing slopes under the bridge;
- Landscaping of affected areas for aesthetics and erosion control;
- Re-grading and paving of the approaches to the new bridge;
- Integration of art with the new bridge.

WHEN WILL CONSTRUCTION OCCUR?

Soil nail installation will begin in April 2014. The bridge will close July 1, 2014. Construction is expected to be completed in fall 2016.

WHICH CONTRACTOR HAS BEEN AWARDED THE 102 AVENUE OVER GROAT ROAD BRIDGE REPLACEMENT PROJECT?

Graham Construction has been awarded the project.

WHAT DOES THIS MEAN FOR TRAFFIC ON ROUTES ACROSS THE 102 AVENUE BRIDGE AND ON GROAT ROAD?

During the bridge closure, both vehicles and pedestrians will be detoured onto Stony Plain Road and 107 Avenue.

There is an existing wooden sidewalk on the west side of Groat Road under the bridge. This will be closed during demolition of the current bridge. The City will coordinate the closure with special events (e.g. Heritage Festival) so that access for people that walk that route to the event is maintained.

The City will provide a free shuttle service for pedestrians affected by the closure of 102 Avenue.

WHAT IS THE PROJECT BUDGET?

The total project cost is estimated to be \$32 million.

WILL THERE BE ANY NOTICEABLE CHANGES?

The new bridge will maintain the existing four-lane design but with wider lanes to meet modern standards. It will also include accessibility for active transportation, such as cycling and pedestrian traffic. There will be wider sidewalks on both sides with barriers separating vehicles from pedestrian traffic.

The open grid bridge deck will be replaced with a solid paved surface. This will reduce noise and improve safety below the bridge by preventing debris from falling onto Groat Road. As the bridge is a single span structure, there will be no

piers or columns in the Groat Road ravine. This will improve safety for vehicles using Groat Road by improving sightlines along the road.

WHAT IS BEING DONE ABOUT THE SLOPES?

At the beginning of the design process, a geotechnical site investigation was carried out to determine the existing soil types and properties. Based on the findings and analysis, the slope stability will be improved using soil nailing. This technique involves placing long steel bars into the slopes to improve stability. In addition, the slopes will be replanted with native plants to help control erosion and provide additional stabilization. This will also replace the plant material removed for bridge construction.

WHY IS THE CITY NOT ADDING TRAFFIC SIGNALS TO 102 AVENUE AND STONY PLAIN ROAD DURING CONSTRUCTION?

Whether an intersection should be signalized is based on several criteria, including traffic volumes, collision history, traffic delays and the proximity of nearby signals. Installing a signal where it is not needed can have a negative impact on traffic flow and safety. This includes more collisions, especially rear-end collisions, and delays to main street traffic.

However, signal changes will be made to the intersections at 102 Avenue and 124 Street, and Stony Plain Road and 124 Street to assist traffic flow during construction.

WHAT IS THE CITY DOING ABOUT VIBRATIONS DURING CONSTRUCTION?

Prior to construction the City will visually inspect the nearby homes and businesses to assess their conditions. During construction the City will set up vibration monitoring equipment near homes and businesses close to the construction site.

As the bridge foundations will be drilled rather than driven into the soil, there will be less vibration from construction.

WHAT IS THE EXPECTED SERVICE LIFE OF THE NEW BRIDGE?

It will be designed for a 75-year service lifespan

IS NOISE GOING TO BE A PROBLEM DURING CONSTRUCTION?

There will be noise and dust from construction, but the noisiest work will take place during the day. The contractor will be required to mitigate noise and to control dust during construction. There will be some overnight work and full weekend closures on Groat Road during demolition of the existing bridge and erection of the girders. Neighbouring homes and businesses will be given advanced notice of the demolition work. Unfortunately, it is not possible to anticipate with enough advanced notice for neighbouring residents and businesses when overnight noise may be an issue.

HOW DID THE CITY DECIDE ON DETOUR ROUTES? WHAT SORT OF DELAYS CAN BE EXPECTED?

The bridge design team worked closely with the City’s traffic group to determine the traffic impacts of closing the bridge and where traffic would likely go. Adjustments will be made to traffic signals, parking and road signs to improve the level of service for commuters.

WHAT OTHER NEARBY CITY PROJECTS WILL TAKE PLACE DURING BRIDGE CONSTRUCTION?

Project	Construction Year(s)
North Glenora Neighbourhood Reconstruction	2014
Grovenor Neighbourhood Reconstruction	2014
102 Avenue over Groat Road Bridge Replacement	2014-16



Glenora Neighbourhood Reconstruction
Westmount Neighbourhood Reconstruction

2014-16
2015-17

WHAT ABOUT THE PROPOSED CLIFTON PLACE DEVELOPMENT?

The Residences of Clifton Place Condo Development is located at the intersection of Clifton Place and 102 Avenue and is adjacent to the 102 Avenue over Groat Road Bridge Replacement Project. WAM Development Group is reviewing the construction schedule for their proposed condo development. There is the possibility that construction of the condo could occur concurrently with the bridge construction. The City will continue to coordinate with WAM as necessary.

WHAT KIND OF ART WILL BE ON THE NEW BRIDGE?

Through the Edmonton Art Council (EAC), an artist was chosen for the project. The selection process included the project design team, EAC and members of the local community leagues.

There are two components to the artwork:

- a) Four steel rounds recycled from the original bridge decking. These will be integrated into the design and construction of the new bridge. They will be one metre in diameter and set into a 390 mm-thick block. The rounds will be installed at each end of the bridge.
- b) A website that will include audio and visual records of both the past and present. The website will have a collection of materials from various aspects of the old and new bridges, audio and video presentations of traffic crossing the bridge, and photographs taken during the demolition and construction of the bridge, as well as the foundry processes.

WILL ADJACENT BUSINESSES BE ACCESSIBLE AFTER THE BRIDGE CLOSURE? HOW WILL I ACCESS THEM?

Yes, the City is required to maintain at least one access to surrounding properties. The City will post signs with access information for the businesses east and west of the bridge.

IS PARKING GOING TO BE AFFECTED NEAR THE PROJECT AREA?

The City will remove alley access in Clifton Place during construction and provide parallel parking along 102 Avenue from the Clifton Place alley to east of 125 Street.

WHY IS THE CITY ACCOMMODATING BIKE LANES ON THE BRIDGE BUT NOT ON THE APPROACHES?

102 Avenue has been identified as future bike route in the City's *Bicycle Transportation Plan*.

HAS THE CITY CONSIDERED THE ENVIRONMENTAL IMPACTS OF THE PROJECT?

As part of the River Valley Bylaw, the design team was required to carry out an Environmental Impact Assessment (EIA). An EIA is an extensive environmental review used to identify, understand, assess and, where possible, mitigate the environmental effects of a project. The EIA was approved on July 29, 2013. The City will monitor the contractor's environmental compliance throughout construction.

WHAT TYPE OF WORK IS GOING ON AT THE WELLINGTON BRIDGE?

The City assessed the structural engineering of the Wellington Bridge, located at approximately 102 Avenue and 132 Street. Given that both the 102 Avenue over Groat Road Bridge replacement and Glenora neighbourhood reconstruction projects will be under construction in 2014-16, the Wellington Bridge will likely see heavier than normal truck traffic.



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To ensure the structural integrity of the bridge, the Wellington Bridge will require temporary shoring. This work will consist of a steel truss support structure on the underside of the bridge. The support structure and installation will not impact traffic on 102 Avenue and is expected to be completed in spring 2014.

The Wellington Bridge is currently listed on the Register and Inventory of Historic Resources in Edmonton. The shoring will be removed after the 102 Avenue over Groat Road Bridge is completed in 2016.

WHY NOT REPLACE THE WELLINGTON BRIDGE AT THE SAME TIME AS THE 102 AVE BRIDGE?

The City does not have the budget to replace the existing Wellington Bridge at this time. The bridge must also remain open to allow construction traffic for both 102 Avenue over Groat Road Bridge reconstruction and Glenora neighbourhood reconstruction projects. Closing the bridge would force all construction traffic to go through local streets in the surrounding neighbourhoods.

HOW LONG WILL THE SHORING REMAIN IN PLACE AT THE WELLINGTON BRIDGE?

The shoring will remain in place to support the surrounding neighbourhood reconstruction work that is expected to continue until 2017. There is a possibility that the shoring will remain in place until the Wellington Bridge is either rehabilitated or replaced.

For more information, please visit www.edmonton.ca/102AvenueOverGroat