

Junction



A unique challenge in North America

Message from the Director

A great deal of good news emerged during the summer with respect to the completion of the Eastern and Western sections of A-30.

First, we must not overlook the fact that an Order-in-Council was obtained from the government, making the Jean-Leman segment in the Eastern Section a true MTQ project. In this Order-in-Council, the Government of Québec stated that this segment is essential in order to attain the objectives pertaining to the flow and security of autoroute 30 as a bypass route around the metropolitan region.

In addition, an agreement has been reached between the MTQ and the Régie intermunicipale du canal de Soulanges with respect to crossing the Soulanges Canal. The structure that is selected will be the first of its kind in North America, and it represents a considerable engineering challenge in terms of the bridges that must be erected.



Paul-André Fournier
Director of the Bureau
de projet de l'autoroute 30

The Bureau de projet de l'autoroute 30, in collaboration with the Régie intermunicipale du canal de Soulanges, rose to the challenge of crossing the waterway without hindering the navigation of vessels in the future.

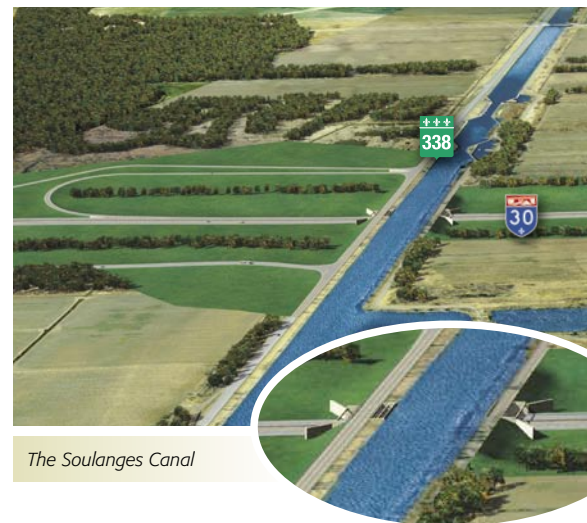
Autoroute 30 was initially expected to cross over the Soulanges Canal. The highway bridge would have imposed considerable limitations on the reopening of the canal to navigation, not to mention the challenge of erecting a large bridge on a foundation of sensitive clay.

The solution that was selected involves digging a tunnel under the Soulanges Canal.

Several concepts were discussed with the members of the Régie intermunicipale du canal de Soulanges. Thanks to the active participation of Mr. Albert Daoust, the Director General of the Régie, the selected concept will allow for the safe passage of trucks transporting hazardous goods under the Soulanges Canal, and will enhance the value of this historical masterpiece.

For safety reasons, the transportation of hazardous goods is normally prohibited in tunnels, but the short distance to be covered in the Soulanges Canal tunnel makes it possible to ensure the safe passage of vehicles. As a result, Autoroute 30 will be able to fulfil its role as a bypass route for the metropolitan region.

The selected concept involves designing a passage under the canal in open segments, with a short tunnel of approximately 60 metres in length on Autoroute 30, and



The Soulanges Canal

a 12-metre wide viaduct for Route 338. The engineers have conducted studies in order to ensure the technical feasibility of the new proposed solution.

The challenge consists of temporarily cutting a section of the canal without flooding the surrounding area, building walls that are anchored to the stone in order to make way for the autoroute and for Route 338, and reconstituting the clay dikes of this canal, which is more than 100 years old.

In addition, the solution must allow for the passage of ships to and from the approach of the neighbouring lock without restriction. Finally, all of the works, including the support structures under the canal, must be designed to resist the intense freezing that is inherent in our climate.

This segment constitutes a daunting engineering challenge, and a first in North America, that will enable A-30 to cross the Soulanges Canal in complete safety.

Groundbreaking for the Jean-Leman Segment

On June 14, 2006, the Québec government gave the official go-ahead for the Jean-Leman segment in the Eastern Section by adopting the Order-in-Council to begin construction of the 3.4 km segment that is located to the east of Autoroute 15, and that extends to the Jean-Leman interchange in Candiac.

This Order-in-Council authorizes the completion of the Jean-Leman segment in the Eastern Section. Also called a certificat d'autorisation de réalisation CAR (Production Authorization Certificate), this certificate not only provides authorization for production, as its name implies, but it also sets out the requirements that the Ministère des Transports du Québec must respect throughout the design and construction of this segment of the Eastern Section. This Order-in-Council was issued pursuant to a project notice that was tabled by the MTQ in May 2004 and an environmental impact study that was conducted in December 2004.

It is important to keep in mind the fact that the Minister of Sustainable Development, Environment and Parks entrusted the BAPE with the mandate of conducting an investigation and a public hearing, both of which were held in 2005. In its final report, the BAPE recommended the trajectory that was proposed by the MTQ.

The team at the MTQ is now working on finalizing this trajectory. The next steps are the production of plans and specifications, the acquisition process, and finally, the work that will result in the Jean-Leman segment being opened to traffic in 2009.



Jean-Leman segment in the Eastern Section

Environmental concerns

In the context of the environmental studies of the Western section of Autoroute 30, an inventory of birds was taken in 2005. This led to the identification of one bird that belongs to a species that has special status, namely the Least Bittern, in a swampy area near the future autoroute. Considered to be an endangered species by the Committee on the Status of Endangered Wildlife in Canada, this bird is on the list of species that are liable to be designated as threatened or vulnerable in Québec. Additional inventories that were conducted in 2006 led to the identification of three of its congeners.

The Canadian population of Least Bitterns is estimated at fewer than 1,000 couples, and the Québec population is estimated at approximately 180. This little Ardeidae is known to nest primarily in freshwater marshes that are populated with cattails, in ponds, and along slow-current waterways that are bordered by dense vegetation (bulrushes, sedge grass, and warblers). The population of this species is declining in Québec, mainly as a result of the loss of marshy habitats due to drying out and filling.

Several measures were developed in order to minimize the impact of the construction work on this species, including the development of work exclusion zones in some locations and during certain periods. A feasibility study will be



The Least Bittern is a species that will be protected throughout the execution of the work to complete Autoroute 30.

Photo: Samuel Denault, 2005

carried out in order to determine the possibility of improving the habitats for this species. A follow-up on the area will be conducted once the autoroute is built.

Over the coming years, several other species will join the Least Bittern in benefiting from MTQ protection. The introduction of such measures attests to the MTQ's commitment to preserving the ecological environments that are spanned by new infrastructures.

To reach us

Bureau de projet de l'autoroute 30
500 René-Lévesque Blvd. West, Suite 13.10
Montréal, QC H2Z 1W7

Telephone: (514) 873-0234
Fax: (514) 864-2155

E-mail: bureaudeprojeta30@mtq.gouv.qc.ca
Web site: www.autoroute30.qc.ca

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