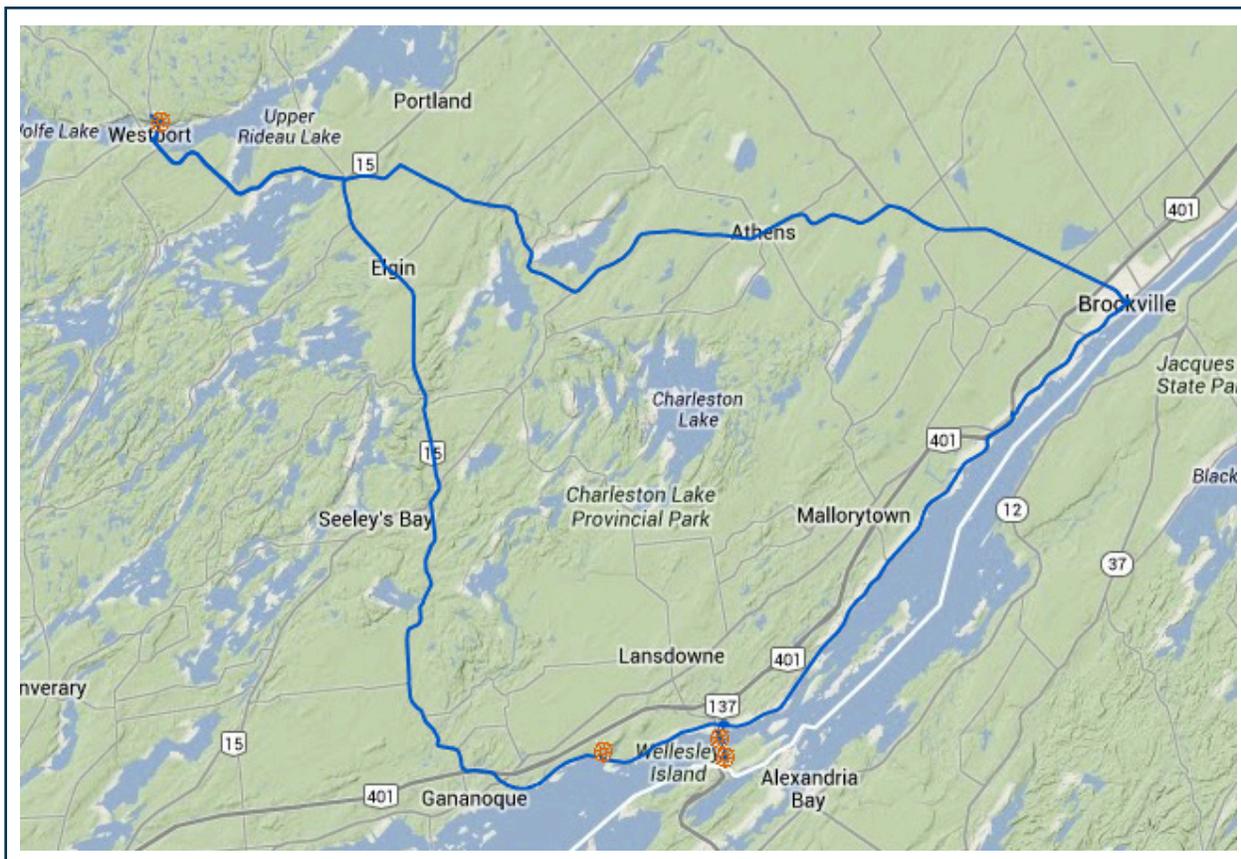




FAB EXPERIENCES

Eastern Ontario, Canada

Bridges of the Biosphere



Tour Description

With so many rivers and streams on the Frontenac Arch, there are many, many bridges. And with a history that reaches so far back in time, many of the bridges have a unique story and architecture. This tour will let you cross those very fascinating bridges when you come to them!

Along the way there are of course lots of heritage features, great places for food and refreshment, viewpoints and galleries to explore. Those close to or on the route are shown on your route map.

Tour from the FAB Brockville Gateway

fabbrockville.ca

1. The Bridge That Wasn't Built

Lat: 44.591600
Long: -75.677700

In the late 1800s, a plan was hatched to build a railway bridge from Morristown, New York, to Brockville. In those days, ferries ran busy schedules across the river from community to community – but such crossings took time and had limited cargo capacity. Newspaper articles in the New York Times in 1890 discussed the proposal, and how such a fixed bridge could connect US lines to the Grand Trunk and Canadian Pacific Railway lines. There seemed to be enough money pledged, and government permissions were granted for a five year window of construction. A photograph from 1897 showed stonework foundations for the bridge on McNair Island – the largest of the Three Sisters islands just east of Brockville.

Then, the work stopped, and was never resumed. The big pillar of stone on McNair Island is the only evidence of the project—but there were plenty of unanswered questions remaining. Where, for instance, was the bridge to land on the Canadian shore? In the direct path was the castle-like home of one of Brockville's most well-to-do residents—unlikely to step aside as the home became a bridge abutment. The railway to connect ran to the industrial waterfront of Brockville, quite a distance to the west. And not the least, how was shipping on the St. Lawrence to be dealt with if a rail bridge spanned the river at what appeared from the early construction to be a rather low bridge—at a time when the river was still the key to inland transport.

Directions: View the bridgework from Centeen Park, looking east, at the Brockville waterfront.

Notes:

2. Merrickville

Lat: 44.916816
Long: -75.8370950

The swing bridge atop the upper lock in Merrickville is one of a series of bridges built at this site over the years. This steel version, from 1990, is electric. Closed, it has a clearance of 2.9 m. (9.5 ft.) and has to be swung for most lockages, so passaging boaters stop traffic, with all the bells and lights.

Notes:

3. Kilmarnock Lock

Lat: 44.884600
Long: -75.930745

In the early 1800s, when the Rideau Canal was being built, the countryside in most all of rural Canada was sparsely populated. Waterways were the transportation routes so with few roads there was little need for bridges, and certainly even less need for any substantial bridges. The innovation along the canal was to build bridges that were easily swung out of the way until needed. This saved building up approach ramps and structures high enough for boats to pass beneath. This one at Kilmarnock is typical of the many swing bridges along the system.

Weighted so that it is balanced on a pivot point, the bridge has steel wheels on a circular track. Even though it weighs several tonnes, it can be swung by one person. Built of wood, the bridges actually changed shape and camber because of varying humidity. The iron rods and threaded turnbuckles are used to tune the shape of the bridge so that it can come to rest exactly to fit to the roadway. The bridge droops in hot weather, so the rods must be shortened to lift the ends; and conversely to ends lift in cold weather, so the rods must be lengthened. On some days, the lockmaster must tune the bridge twice.

Notes:

4. Smiths Falls

Lat: 44.897066
Long: -76.020365

There are two bridges of particular interest in Smiths Falls. While the Beckwith Street bridge is entirely unremarkable in itself, it is the change it caused that's worth talking about. Smiths Falls has always been a busy town, an intersection of rail lines, roads and the canal. It was the canal, though, that interrupted the north-south roads traffic. Bridges were never a perfected solution, but roads were connected to the canal's locks because in the early days of transportation, they were where freight could be loaded and unloaded from barges and steamers. From the beginning no one was happy with any version of the Beckwith bridge. The first was a slow and cumbersome rolling bridge, and it was replaced in 1889 with a swing bridge. A heftier iron swing bridge was built in 1923, but by the 1960s the town fathers decried it as too old, narrow and slow. By 1970 it was in such rough shape, with loads and speeds so low and slow, that something had to be done. As often the way in progress, transportation trumps history. The federal Department of Transport managed the Rideau Canal at the time, and planned to replace the three locks with a new type that would see the old locks torn out and a single new lock replace them. In a truly 11th hour story, just one month after Transport had plans in place, the custody of the Rideau Canal was transferred to the Department of Indian and Northern Affairs, then the departmental home of National and Historic Parks and Sites. The heritage-oriented staff realized that an irreplaceable asset was about to be lost, and brought the project to a halt—much to the disgruntlement of some in the community. *continued*

Explore more at: frontenacarchbiosphere.ca

Notes:

Continued from previous page. The solution, while not perfect, saw a compromise. In 1973, the new combined lock was built just to the north of the old locks, and the channel diverted to it. The new lock technology created one lock to replace the three, and boats lifted and lowered away from the bridge. The old locks chambers were left in place.

The new lock has design elements, as it were, of the historical locks. The top section of the gates are timber; horizontally laid and through-bolted timbers in the Trent Canal style, while the lower section of the gate is fabricated of metal. The walls are poured concrete, and the gates and valves are electric/hydraulic. This lock has the highest lift of all the canal's locks, at 7.9 m. (26 ft.). Every lockage uses 3.4 million litres (750,000 gallons) of water.

The Detached Lock is just a couple of hundred metres west of the Beckwith Street bridge. Nearby is the Smiths Falls bascule bridge, built on the Toronto-Ottawa line of the Canadian Northern Railway in 1912-1913. To save the expense of a bridge high enough to avoid shipping on the canal, the solution was a structure to lift the trestle out of the way, yet it had to be easy and simple to run. Scherzer rolling lift bascule bridges were introduced to Canada around 1911, and this is the oldest surviving structure of its type. An overhead concrete counterweight balanced the 21-metre plate-girder lift-span. Very little power was required to operate it owing to the unique rolling lift action which almost eliminated friction. Originally electrically powered, the bridge was manually operated from 1915-1978. Canadian National Railways transferred ownership of the bridge to the City of Smiths Falls for maintenance as a heritage resource. It became a National Historic Site in 1983.

Driving Directions: A swing bridge, now electrically powered, crosses at Abbott Street just east of the lock. It is swung 5 times between 8:45 and 11:45, closes from then to 1:00 pm for road traffic, and resumes operation on demand until the lock closes.

7. Lyndhurst Bridge

Lat: 44.549770
Long: -76.125400

Built in 1856-57, the Lyndhurst Bridge is the oldest bridge in existence in Ontario. Designed by John Roddick, and erected by contractors Miles Fulford and Simon Ransom it is a fine example of masonry arch construction. The picturesque, three-span bridge was built of local field stone, laid in random courses, and is unadorned except for the sandstone wall caps and arch surrounds, with curved flared end walls. In 1986 the Lyndhurst Bridge was strengthened with a reinforced concrete interior frame and completely restored to its original exterior appearance. It remains in regular use today.
Continued on next page

Driving Directions: From Thousand Islands Bridge, in 200 metres take 2nd exit to Thousand Islands Parkway west; in 600 metres turn right on Cnty. Rd. 3; north on Cnty. Rd. 3 for 28 km.; turn right at intersection, bridge 40 metres ahead; park on east side of bridge.

Notes:

**8. Swing Bridge,
Gananoque**

Lat: 44.325400
Long: -76.159400

The swing bridge in Gananoque was built in 1894, as a spur line from the waterfront terminal of the Thousand Islands Railway, across the Gananoque River to the carriage works that is now the Gananoque Inn. Still a one-lane bridge today, it only seldom opened, operating with a hand crank.

Driving Directions: Drive east from Kingston on Cnty. Rd. 2 to Gananoque, approx. 30 km. Turn right on Main St., to Water St.; bridge is 200 metres ahead.

Notes:

9. Kay's Bridge

Lat: 44.357700
Long: -76.074400

Kay's Bridge is a dry stone bridge, built by volunteers in 2010 to cross this creek along a hiking trail here on the Landon Bay Centre property. The bridge is constructed entirely without mortar, from stone recovered from the historic homestead of Barbara Heck, founder of the Methodist Church in Canada. The bridge was named in memory of one of the Landon Bay Centre's founders, Kay Donevan.

Driving Directions: Drive east from Gananoque on King St., to Thousand Islands Parkway exit on right; approx. 6 km to Cross Cemetery Rd.; turn right, approx. .5 km. Park at roadside, bridge is on right.

Notes:

10. Parkway Twins

Lat: 44.351800
Long: -76.069900

The twin bridges on the Thousand Islands Parkway at Landon Bay seem odd, in that there is just a two lane highway. When the Parkway was built in the mid-1930s, this was planned as a four-lane highway – but the depression-era economics downsized the plans. A second four-lane span crosses further east, at Jones Creek.

Driving Directions: At Thousand Islands Parkway, turn left; approx. 600 meters to bridges; park on north lane.

Notes:

10. Thousand Islands Bridge

Lat: 44.362250
Long: -75.982640

The Thousand Islands International Bridge was begun in May 1937, and opened under budget and on time in August, 1938. This Canadian section spans 3,300 ft/1,006 metres, with three bridge forms – suspension, arch and truss. Best experienced on foot, park at the toll booth lot, and walk (no charge) on the walkway on the west side. The view is superb. Built at the narrowest part of the river, the St. Lawrence begins where Lake Ontario ends, literally right under your feet. Note the river is current-stressed as it plunges down an underwater chute one and a half times the height of Niagara Falls to begin the race to the Atlantic.

Driving Directions: Drive approx. 7.5 km. east on Parkway; exit left on ramp to Thousand Islands Bridge/Hill Island, .5 km.; toll booth parking on right.

Notes:

Return to Brockville

Driving Directions: From the Thousand Islands Bridge, drive north 200 metres past toll booth, take first exit right to Thousand Islands Parkway East; drive approx.. 23.5 km. to end of Parkway, which merges onto Highway 401; drive approx.. 2 km. on 401; exit right onto Cnty. Rd. 2 to Brockville, approx.. 7 km.

Your Trip Notes:

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