

THE VALUE STATEMENT

February 14, 2017

THE GLEN VIADUCT

HERITAGE DESIGNATION

Municipal - None

Provincial - None

Federal - None



Glen Viaduct insertion site



Glen Viaduct (view from Glen Road)

OVERVIEW OF THE VALUE STATEMENT

The Glen Viaduct is a civil works structure worthy of interest. This railway bridge, owned by the Canadian Pacific Railway, is part of a northbound landscape corridor from Westmount's southern boundary to Westmount Park. The Glen Viaduct played a determining role in the development of the City of Westmount at the turn of the 20th century. It was also the first major civil engineering structure erected in Westmount. The Viaduct's Richardsonian Romanesque Style reflects the architectural practices of the era and North America's tradition of constructing railway viaducts. Today, this arch forms part of a unique landscape in the metropolitan area, as the only stone viaduct in a landscape area in the heart of an old valley. This iconic place remains a meaningful visual landmark on a local scale as the municipality of Westmount's "gateway to the city".



CONTEXT

The place of interest is the Glen Viaduct and its supporting embankments.

The insertion sector of the viaduct is composed of the vegetation cover located around the structure, along both sides of Glen Road. The part studied is the area extending from the southern boundary of the municipality to Sainte-Catherine Street West. This irregular landscape corridor covers, on average, a distance of 230 metres (length) by 90 metres (width).

This area is sliced lengthwise by Glen Road and crossed perpendicularly by the Canadian Pacific Railway. It has topographical features including a slope accentuated by the Saint-Jacques cliff.

Glen Road is a route between Landsdowne Avenue (in Westmount) and De Courcelles Street (in the Sud-Ouest borough of Montreal). The Ville-Marie Expressway overlooks this road at the southern boundary of the City of Westmount.

CHRONOLOGY

STEP 1. BEFORE 1880

Before the 15th century – Aboriginal presence

15th century – Presence of Hochelagans, second known Aboriginal nation

1663 – Development of seigniories along Côte-Saint-Antoine Road

1685 – First tanneries set up on St. Pierre River, near Otter Lake

1780 – First tanneries in the Village of Côte Saint-Antoine near Saint-Antoine Street and De Courcelles Street

1870-1880 – Road along the Glen ravine leading to Saint-Henri station of the *Canadian Grand Trunk Railway Company*

1872 – *Montreal City Passenger Railway Co.* created a network of horse-drawn streetcars

STEP 2. 1880 TO 1930

1881 – Founding of the Canadian Pacific Railway Company

1882-1883 – Construction of the first railway station in Montreal, Dalhousie Station

1885 – CP built its rails along the Saint-Jacques Escarpment

1887-1889 – Construction of Windsor Station

1888 – CP built a timber trestle bridge in the Glen Valley (1889–currently in use)

1890 – The Village of Côte Saint-Antoine became the Town of Côte Saint-Antoine

1892 – Construction of the stone arch, the Glen Arch (negotiations started in 1890)

1893 – Electrification of tramways

1895 – The Town of Côte Saint-Antoine changed its name to City of Westmount

1896 – The CP Abbott Station was built

1906 – Construction of the power station and incinerator, expansion in 1909

1907 – CP built Victoria Station (Westmount Train Station), replacing Abbott Station

1918-1919 – Enlargement of the Glen Arch (World War I)

1930 – Construction of Boulangerie POM (designed by Sydney Comber)

STEP 3. 1930 TO TODAY

1957 – Reconstruction of Sainte-Catherine Street West and Glen Road

1972 – Completion of the Ville Marie Expressway

1983 – Closure of Westmount Station (passenger service)

1994 – Designation of the station as a Canadian Heritage Railway Station

1998 – The former Glen rail yard purchased by the MUHC (for the future MUHC hospital)

2000 – Acquisition of Westmount Train Station by the City of Westmount

2004 – The Glen train yard ended its operations

2010 – Restoration of the Glen Viaduct (Glen Arch) by CP

2012 – Unveiling of a commemorative stone for the Glen Viaduct

HERITAGE VALUES

HISTORICAL VALUE

DESCRIPTION

The Viaduct as part of a national railway system.

The Viaduct is a railway structure belonging to Canadian Pacific. The railway system, with its transcontinental routes and oceanic connections, was instrumental in the country's development. As a railway passage, the Viaduct played a role in the economic dominance of the Island of Montreal across Canada at the turn of the 20th century. This structure was also located within a major railway complex, which includes the Glen Yard and the Westmount Train Station.

The Viaduct as the first major civil works structure in Westmount.

The stone arch was built in 1892 to span the Glen valley and stream. This structure was erected to replace the wooden bridge, which had been in use since 1889. The Town of Côte St. Antoine, which would become the City of Westmount, bore the construction costs, in exchange for the right to plot out Glen Road and to channel the Glen stream under the road. This ambitious project also shows the innovative overall vision of the municipality at the turn of the 20th century.

The toponym "Glen" in reference to the old Glen stream.

The term "Glen" referred to the old Glen stream ("The Glen"), which, in the past, extended to the St. Pierre River. This name was likely assigned in the early 19th century by the Scottish who settled in this area and originated from the Scottish Gaelic word *glenn* or *gleann*, which means "mountain valley [...] narrow, secluded valley." This name relates to various locations, including the Glen Viaduct (also known as "Glen Arch") and Glen Road.

CHARACTER-DEFINING ELEMENTS

- The Trans-Canada Railroad.
- The viaduct as a civil works structure.
- The toponym "Glen" refers to the former Glen Stream.



Glen Viaduct, 1910



Westmount Train Station (Victoria)



Former Glen Stream

HERITAGE VALUES

TECHNOLOGICAL VALUE

DESCRIPTION

A Viaduct with proven durability.

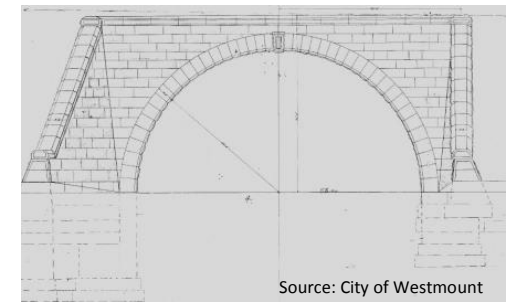
The stability of this structure lies in the ingenuity of its construction and stems from the rigorous requirements developed by P. Alex Peterson, the Canadian Pacific Railway's Chief Engineer, and from the work supervised by the Town of Côte St. Antoine. The Viaduct consists of a semi-circular barrel vault. This construction technique, which has been used for millennia, holds an exemplary structural quality. The structure mass and load capacity have enabled it to withstand the weight of railway equipment until present. The enlargement of the arch in 1918-1919, to triple the rail lines, was designed according to the same engineering design.

The Viaduct as part of a network of civil works structures.

The Viaduct is part of a set of civil works projects carried out in the Glen area during the same period. These projects included draining and channelling the Glen stream with a hydraulic routing system, as well as building a road (Glen Road).

CHARACTER-DEFINING ELEMENTS

- The semi-circular barrel vault as a high-load-capacity construction system.
- Limestone as a strong material.
- The viaduct's functional purposes as crossing, railway bridge, and tunnel.
- The overlaying of several roadway components, including Glen Road, the Viaduct, and the rail lines.
- The piping system under Glen Road (underground channelling of the stream flow).



Blueprint of the Glen Viaduct



Diagram (approximate data):
Glen Valley (top image) and channelled stream
(bottom image)

HERITAGE VALUES

ARCHITECTURAL VALUE

DESCRIPTION

A railway Viaduct emblematic of the Richardsonian Romanesque Revival architecture style.

The Viaduct was constructed in the Richardsonian Romanesque style, an American architectural style prevalent in the last quarter of the 19th century. This Viaduct is characterized by stylistic elements drawn from 10th- and 12th-century Romanesque architecture as well as the picturesque effects of the late Victorian era (use of rusticated masonry, recessed entrances, etc.) This remarkable engineering work was built according to the Canadian Pacific Railway's plans.

A Viaduct that respects the tradition of railway viaducts in North America.

Between 1885 and 1912, the Canadian Pacific favoured the Richardsonian Romanesque style. The stone arch, built in 1892, was also designed in an era in which limestone rock was used for railway viaducts in North America. This same material was used when the arch was enlarged in 1918-1919, despite the building materials in fashion at the time. From a stylistic perspective, these elements contribute to the picturesque character of the Viaduct and to the integrity of its composition.

The materials which contribute to the physical integrity of the Viaduct.

The Viaduct is made of grey Trenton limestone, which came from the old quarries in Pointe-Claire. The enlargement of the arch in 1918-1919 was carried out while respecting the original materials and with similar finishing (limestone). However, the stone details reveal that the materials were treated differently.

Note: Additions to the viaduct's structure (such as safety fences, benches, etc.) are not included as components of heritage interest.

CHARACTER-DEFINING ELEMENTS

- The Viaduct's Richardsonian Romanesque style.
- The semi-circular barrel vault.
- The grey limestone with its natural rock facing (uneven edges), from the old quarry in Pointe-Claire.
- The composition of the Viaduct, including the vault and the retaining wing walls.



Barrel vault



Inside view of the Viaduct



Trenton limestone, southern section (second stage of the construction)

HERITAGE VALUES

LANDSCAPE VALUE

DESCRIPTION

The Viaduct as a picturesque site.

The Viaduct is incorporated into a landscape corridor radiating north, starting at the Westmount southern city limit, up to Westmount Park. This vegetative and ecological cover has a pastoral character with its abundant green spaces and its stone Romanesque Revival structure. The site's landscaping was designed in the picturesque spirit of the 19th century, respecting natural watercourses, as well as ravines and wooded areas. Nowadays, this site constitutes a unique landscape on the Island of Montreal, as it is the only stone viaduct within a landscaped area in the heart of an old valley.

A Viaduct that provides remarkable views and a landscape experience.

Remarkable views are created by the Viaduct and the significant change in grade. The route's curvature, the vegetative landscape, and the sunken effect gradually unveil this century-old arch. From inside the tunnel, the play of light highlights the monumentality of the structure. Along the route, the old valley and its impressive vegetative cover offer users a discovery-filled experience.

CHARACTER-DEFINING ELEMENTS

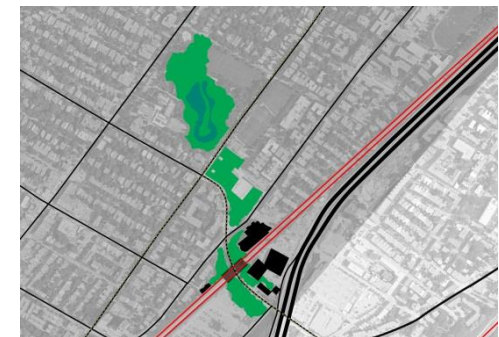
- The different types of setting along the landscape corridor, including a wooded section, a grassed area, and mature trees.
- The dimensions, architectural structure, and monumentality of the Viaduct.
- The picturesque components including the site's topography, the vegetative cover, and Glen Road's winding route.
- Noteworthy views from both sides of the Viaduct and embankments.
- Wildlife habitat and vegetation ecosystem.



Glen Viaduct as the city's gateway



Presence of mature trees on the embankments



The landscape corridor

HERITAGE VALUES

SYMBOLIC VALUE

DESCRIPTION

The Viaduct as an important visual landmark on a municipal scale.

A scenic view, formed by the stone arch and its vegetative corridor, represents an important visual landmark as it marks the gateway to the City of Westmount. For centuries, Glen Road has also been a passageway and transition point between two areas, known today as Westmount and the Southwest Borough.

The Viaduct and its commemorative monument.

Westmount's local and community organizations have led sustained mobilization efforts aimed at protecting the Viaduct. A commemorative stone, located in the vicinity of the structure, was inaugurated on November 27, 2012, in honour of the 120th anniversary of the Viaduct's construction.

CHARACTER-DEFINING ELEMENTS

- The embankments part of a landscaped, historical environment.
- The Glen Viaduct as a commemorative space.
- The Viaduct's function as a "gateway" (passageway).



The Viaduct as an important visual landmark



Gathering for the unveiling of the commemorative plaque

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