

866 AVENUE TACHÉ

WINNIPEG AQUEDUCT
ST. BONIFACE SURGE TANK

City of Winnipeg
Historical Buildings & Resources Committee
Researcher: M. Peterson
April 2018

This building embodies the following heritage values as described in the *Historical Resources By-law*, 55/2014 (consolidated update July 13, 2016):

(a) It is illustrative of the evolution of one of the City's most important services – providing fresh water for use by citizens and businesses;

(b) It is associated with the modernization of Winnipeg's fresh water system and the City of St. Boniface's participation in this development;

(c) N/A;

(d) It is a good example of an architecturally treated industrial building located in a residential neighbourhood;

(e) It is a conspicuous building within its neighbourhood; and

(f) The building's exterior has suffered little alteration.

866 AVENUE TACHÉ– WINNIPEG AQUEDUCT ST. BONIFACE SURGE TANK

The history of an organized waterworks in St. Boniface dates back to 1904. Prior to this period, water was obtained by various methods: through a system of public wells, purchase from private companies and the use of the Seine River. In 1904, however, the town council passed a resolution funding an artesian well system to supply the growing residential, commercial and industrial sectors of St. Boniface. Designed and built by St. Boniface Engineer Cecil Goddard, the system entailed a series of wells with small pump houses sending the water to the central pump house on Plinguet Street. From there, the powerful pumps sent the water up 43.0 metres to the 390,956-litre-capacity tank. Gravity then moved the water through the town's 20.1 kilometres of water mains. Total cost of the water and sewer systems was $345,000, a large sum indicative of council's desire to meet future needs of the community.[1]

Unfortunately, the system proved inadequate almost before it was completed. The wells produced water of uncertain volume and poor quality. The growth of the town had exceeded even council's optimistic forecasts and the water system was quickly overburdened. In 1905, a $40,000 extension was made to the water system and in 1908, the year St. Boniface incorporated as a city, additional wells were drilled. The inconsistency of the supply is illustrated by the City's need to purchase water from the City of Winnipeg in 1912 and then its ability to sell surplus water to St. Vital in 1913.[2] It was becoming obvious that a more dependable source was necessary.

That new and dependable source would surface as the Shoal Lake aqueduct development of 1913-1919. St. Boniface, together with the City of Winnipeg, the Town of Transcona and the municipalities of St. Vital, and parts of Kildonan, Assiniboia and Fort Garry formed the Greater Winnipeg Water District (GWWD) to build the aqueduct. It was not the cheapest of the possible

---

1 Procès Verbal du Conseil de la Municipalité de Saint Boniface (below as Procès Verbal), March 12, 1905; and Western Municipal News, June 1906, p. 135.

2 Procès Verbal, October 9, 1905, December 10, 1905 and February 1912, p. 1032.

solutions to the area's water problem – the final cost was $17 million[3] – but it was undoubtedly one of the most far reaching and wisest decisions made for the growth of the entire region (Plates 1 and 2).[4]

Part of the original development of the aqueduct included an inline surge tank; a device capable of storing thousands of litres of Shoal Lake water if it were necessary to relieve rising water pressure in the system (Plate 4).[5] The surge tank was built in St. Boniface, on the banks of the Red River (Plate 5).

STYLE

Even given this structure's industrial role, design and stylistic considerations were still an obvious concern of the designers, its exterior features a number of fine ornamental elements based on classical architecture.

CONSTRUCTION

The water holding tank is encased in the exterior structure which has a 12.2-metre diameter (see Appendix I for additional construction information).[6] The tower is built of brick with stone and concrete elements.

Also on the site is the one-storey brick Booster Pumping Station, completed in 1950 and measuring approximately 11.3 x 20.7 metres (Plate 6).

---

3 Winnipeg's Water. Our Most Essential Resource (Winnipeg, MB: Winnipeg Water and Waste Department, 2002), p. 4.

4 For the City of St. Boniface, Aqueduct water was piped to a pumping station and water tower and tank facility on Plinguet Street to maintain consistent pressure and supply (Plate 3).

5 Information supplied by D. Romans, Water and Waste Department, Water Services Division.

6 City of Winnipeg Assessment Record, Roll No. 600650-06.

DESIGN

The base is clad in rough-cut limestone which is only interrupted on the east where a small wooden door was placed to give access to the tank within (Plate 7). Above is a band of smooth concrete, capping the stone and leading to the dark brick tower (Plate 8). The brickwork on the actual tower is very intricate, including header and stretcher courses, arches, diamond shapes with concrete accents and at the top, a raised area of brick leading to the stone and concrete cornice (Plate 9), interrupted by a metal ladder giving access to the roof (Plate 10). Finishing the structure is a concrete capped brick parapet (Plate 11).

INTERIOR

N/A

INTEGRITY

This structure stands on its original site, is in excellent structural condition and has not suffered major alteration. A shed, originally attached to the east side of the building, has been removed.

STREETSCAPE

The surge tank/pumping station complex is located at the bottom of avenue Taché, near the banks of the Red River. It is surrounded by single-family dwellings and small scale commercial/industrial property and the Canadian National Railway's raised right-of-way to the south (Plate 12). A newer multi-tenant residential structure is being built immediately south of the structure (Plate 13).

ARCHITECT/CONTRACTORS

The architect and contractor for the surge tank are unknown at this time.

The Booster Pumping Station, which officially opened on May 31, 1951, was designed by local architectural firm Green, Blankstein, Russell and Associates.

PERSON/INSTITUTION

Construction began on the Winnipeg/Shoal Lake Aqueduct on May 15, 1915, and Shoal Lake water first flowed from Winnipeg taps on April 6, 1919.[7] On the St. Boniface side of the Red River, a surge tank was built through which the cast iron main line water pipe ran.[8] If necessary, the Shoal Lake water could be diverted into the surge tank, reducing water pressure in the system. If necessary, water could overflow the tank and run (from the top) into the Red River.[9] The main line then ran under the Red River on its way to the system's enclosed reservoir at McPhillips Street and Logan Avenue.

The Winnipeg Aqueduct System has seen technological changes that have affected the St. Boniface Surge Tank, although it is still an integral part of the system. Large increases in water consumption in the 1940s led to the construction of a booster pumping station to increase flow to the McPhillips Reservoir.[10] It was described by City Engineer W.D. Hurst as the "first major addition to the district's aqueduct since the original works were built in1919."[11] If additional water was required by the system, a valve diverted Shoal Lake water from the main line into the booster station; its three pumps drew in the water and pumped it back into the main line on its

---

7 Winnipeg's Water, op. cit., p. 4. The aqueduct was officially opened by His Royal Highness, Edward, Prince of Wales on September 9, 1919.

8 Manitoba Free Press, March 7, 1919, p. 9.

9 Ibid., p. 6; and D. Romans, op. cit. Overflow water can no longer flow into the Red River because fluoride and orthophosphate have been added to the Shoal Lake water at the Deacon Reservoir since 2000.

10 Winnipeg Free Press, July 6, 1948, p. 3, October 13, 1948, p. 3 and March 17, 1950, p. 3. The final cost of the booster station was estimated at $200,000.

11 Quoted in Winnipeg Free Press, March 17, 1950, p. 3.

way to the McPhillips Reservoir. The Booster Pumping Station, although only used infrequently, is still an active part of the waterworks system (Plates 14 and 15).

Today, the system operates with increased capacity (Plate 16). A second branch line was built from the Shoal Lake Aqueduct, running from the Deacon Reservoir to the Wilkes Reservoir in southwest Winnipeg. The system now boasts four reservoirs, two additional surge tanks (both located at the Deacon Reservoir) and several booster pumping stations.

EVENT

There is no known event connected with this building.

CONTEXT

The surge tank was one of the original facilities built for the Winnipeg Aqueduct, opened in 1919. The Booster Pumping Station, completed in 1950 just north of the surge tank, was part of the post-World War II expansion of the system, necessitated by a rise in demand for water in Winnipeg and the surrounding municipalities that were also connected to the aqueduct. The surge tank and the booster pumping station both continue to be integral parts of the system that brings fresh water to Winnipeg from Indian Bay on Shoal Lake.

LANDMARK

The unusual design and scale of the surge tank ensure that the building stands out within its residential neighbourhood.

APPENDIX I

CITY OF WINNIPEG - Preliminary Report
Assessment Record

Building Address: 866 avenue Taché

Building Name: St. Boniface Surge Tank

Original Use: surge tank (Winnipeg Aqueduct)

Current Use: surge tank

Roll No. (Old): 06060065000 (600650-06)

RSN: 185921

Legal Description: 76 St. Boniface, Plan 64, Lots 8, 10, 107

Location: southeast corner rue Message

Date of Construction: 1918

Storeys: 1

Heritage Status: **ON INVENTORY**

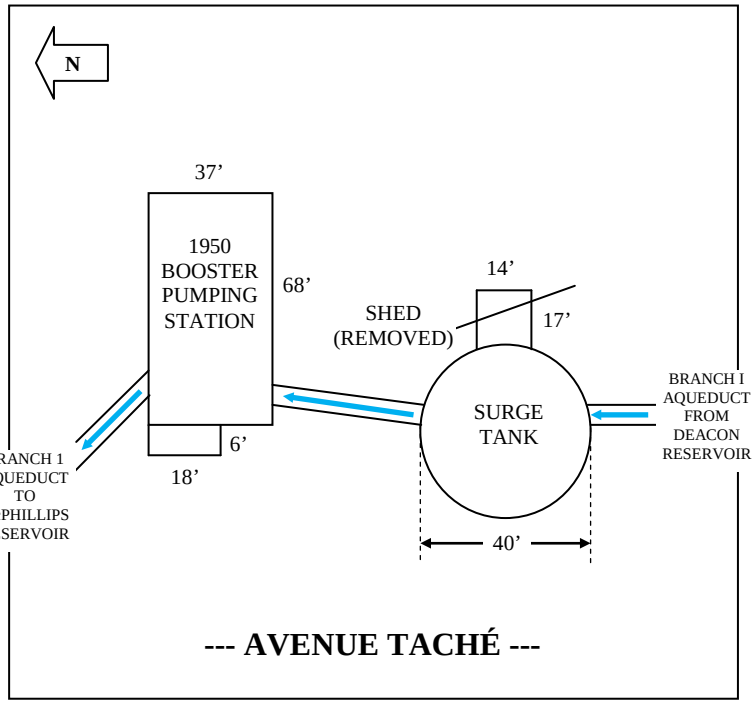
Construction Type: Brick, concrete and stone on stone base

Building Permits (Plans available: **[M]** Microfilm; **[PPD]** Department Storage):
- 1720/1918 (St. Boniface Permit); 1976/1994 $3,000 (locate miscellaneous structure)

Information:

- tank 40’ in diameter

- Booster Pumping Station- 1 storey & basement, brick, built 1950, 37 x 68’



ARCHITECT: UNKNOWN

CONTRACTOR: UNKNOWN





Plate 1 – Two photographs taken during the construction of the Winnipeg Aqueduct, no date. Note the shape of the line, a dish-shaped floor covered by a parabolic-shaped shell. Sections of the line were connected with copper expansion joints. (Top: City of Winnipeg; Bottom: Winnipeg Free Press Archives.)

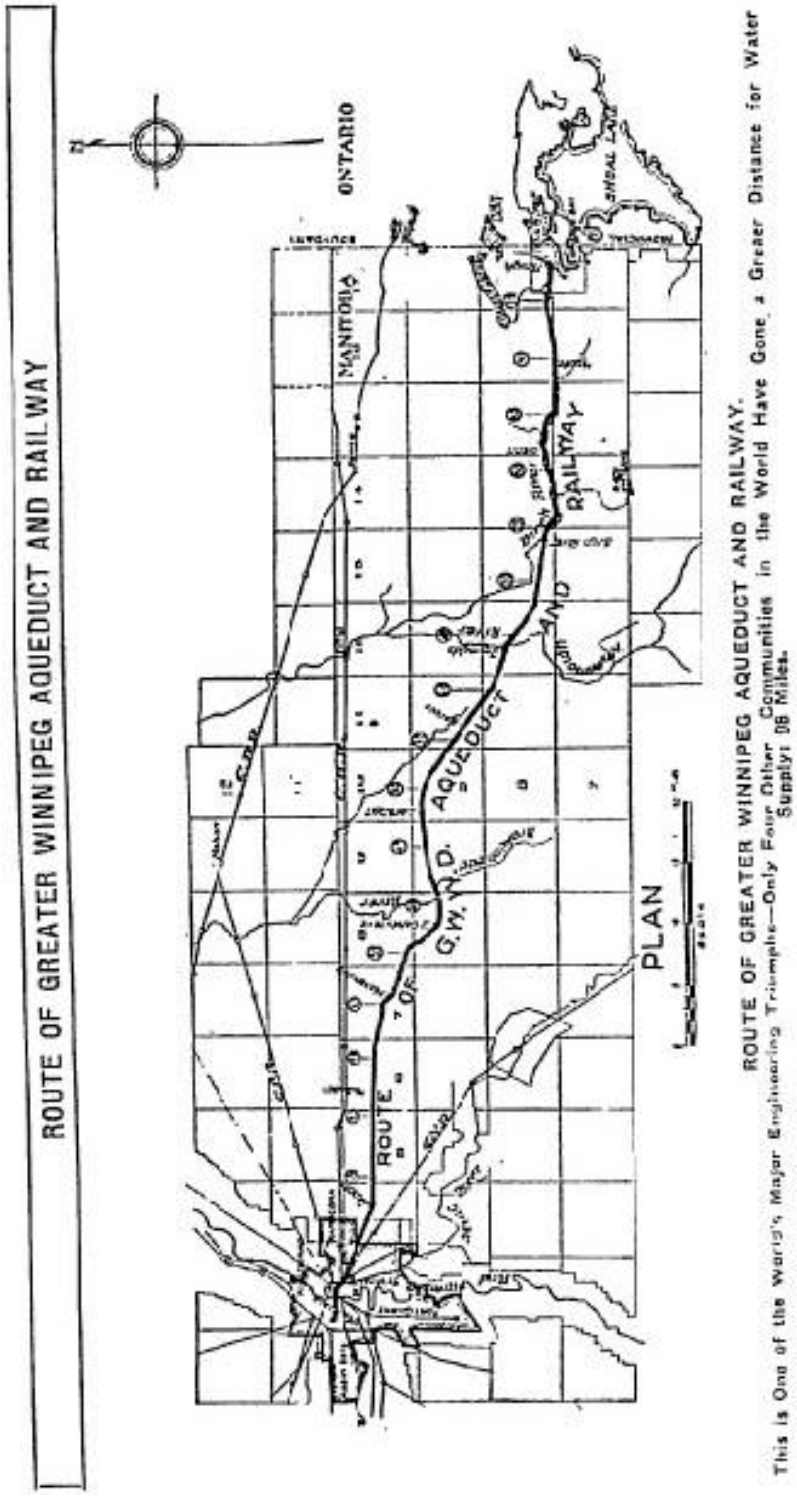


Plate 2 – The completed route for the aqueduct and Greater Winnipeg Water District Railway, 1920. (Reproduced from the Manitoba Free Press, January 3, 1920, p. 27.)

866 TACHÉ AVENUE – WINNIPEG AQUEDUCT ST. BONIFACE SURGE TANK



Plate 3 – This photograph was taken in 1918 from the Winnipeg side of the Red River and shows the construction of the surge tank on the opposite shore in St. Boniface. (Courtesy of the Water and Waste Department, City of Winnipeg.)

866 TACHÉ AVENUE – WINNIPEG AQUEDUCT ST. BONIFACE SURGE TANK



Plate 4 – Winnipeg Aqueduct St. Boniface Surge Tank, looking southwest from rue Messager, 2013. (M. Peterson, 2013.)

866 TACHÉ AVENUE – WINNIPEG AQUEDUCT ST. BONIFACE SURGE TANK



Plate 5 – St. Boniface Waterworks, Plinguet Street, no date. The facility was taken out of service in the 1970s and the pumping station (left) was demolished in the 1990s. (M. Peterson, no date.)



Plate 6 – Winnipeg Waterworks Pumping Station, front (west) and north façades, 2012. (M. Peterson, 2012.)



Plate 7 – Winnipeg Aqueduct St. Boniface Surge Tank, east door, 2013. (M. Peterson, 2013.)

866 TACHÉ AVENUE – WINNIPEG AQUEDUCT ST. BONIFACE SURGE TANK



Plate 8 – Winnipeg Aqueduct St. Boniface Surge Tank, 2013. (M. Peterson, 2013.)



Plate 9 – Winnipeg Aqueduct St. Boniface Surge Tank, brick detail, 2013. (M. Peterson, 2013.)



Plate 10 – Winnipeg Aqueduct St. Boniface Surge Tank, metal roof access ladder, 2013. (M. Peterson, 2013.)



Plate 11 – Winnipeg Aqueduct St. Boniface Surge Tank, detail of top, 2013. (M. Peterson, 2013.)

866 TACHÉ AVENUE – WINNIPEG AQUEDUCT ST. BONIFACE SURGE TANK



Plate 12 – Looking north on avenue Taché from rue Hebert, 2013. (M. Peterson, 2013.)

866 TACHÉ AVENUE – WINNIPEG AQUEDUCT ST. BONIFACE SURGE TANK



Plate 13 – Looking north on avenue Taché from rue Hebert, new construction, #850-852 avenue Taché, in the foreground, 2018. (M. Peterson, 2018.)



Plate 14 – Winnipeg Waterworks Booster Pumping Station, Branch I Aqueduct entering the basement, 2013. (M. Peterson, 2013.)



Plate 15 – Winnipeg Waterworks Booster Pumping Station, ground floor water pumps, 2013. (M. Peterson, 2013.)

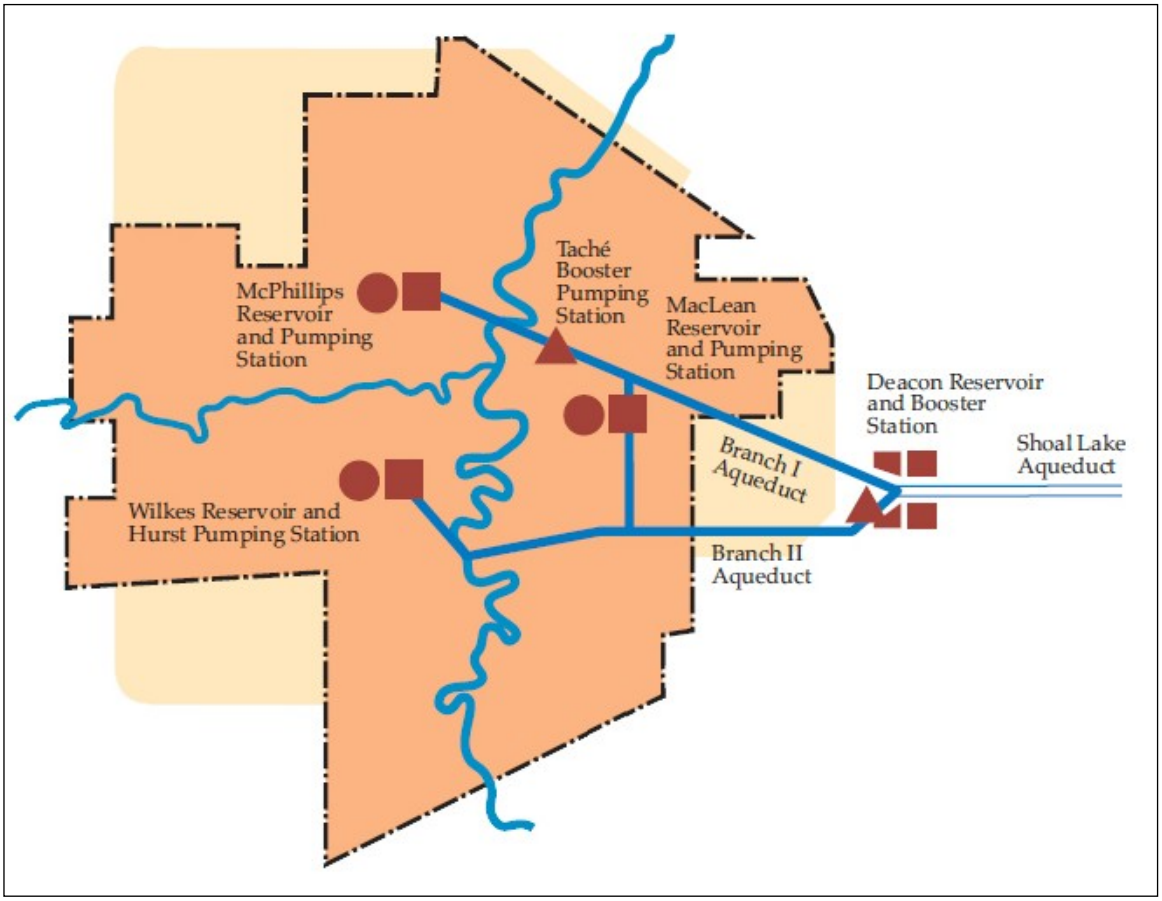


Plate 16 – The Winnipeg Waterworks system. (Reproduced from Winnipeg's Water. Our Most Essential Resource [Winnipeg, MB: Winnipeg Water and Waste Department, 2002], p. 6.)