

Ontario Regulation 9/06 Assessment

Address: 200 First Avenue

Date:

Prepared by: Heritage Staff



Source: City of Ottawa Heritage Staff, 2024

Executive Summary

200 First Avenue is a two-storey red brick Beaux-Arts building with a raised basement and a symmetrical façade with five bays of windows. The property is located within the Glebe neighbourhood of Ottawa.

Designed by notable Ottawa architect John Albert Ewart and purpose built in 1913, 200 First Avenue served as the Carling Exchange, the third Bell Telephone Company switchboard exchange in Ottawa, providing telephone services until the 1940s. Today, the property is owned by the High Commission of Trinidad and Tobago.

The property has cultural heritage value for its design, associative and contextual values. It meets five of the nine criteria for designation under Part IV of the Ontario Heritage Act.

Criterion 1	
The property has design value or physical value because it is a rare, unique, representative or early example of a style, type, expression, material or construction method.	Yes
Response to Criterion The property at 200 First Avenue has design value as a representative example of the Beaux Arts architectural style, an expressive style evoking grandeur, stability and permanence, often featuring classical elements, and most commonly applied to turn of the century buildings. The former Carling Exchange building features wide massing, symmetrical façade, and central entrance. The building is composed of five bays of windows and a raised basement and displays classical elements including a symmetrical façade, a large cornice, pilasters, decorative brickwork, and central entrance with portico.	

Supporting Details – Criterion 1

200 First Avenue is a two-storey red brick building with a raised basement and a symmetrical façade with five bays of windows. The building, constructed in 1913, is a representative example of the Beaux Arts architectural style, an expressive style evoking grandeur, stability and permanence, often featuring classical elements, and most commonly applied to turn of the century buildings.

The central entrance features double metal front doors with a large square window divided into several lites and framed by decorative metal. A stone entablature including volutes and a pediment surround the entrance. The main brick body of the building divided into bays by two-storey brick pilasters. The building also displays decorative brickwork between the first and second storey, stone lintels and banding over windows, string courses, stone roundels, a heavy cornice and one brick chimney. The building's twin, the Rideau Exchange, built in 1912, is located at 251 Besserer Street.



Front elevation facing First Avenue. City of Ottawa Heritage Staff, 2024.



Image of back of building. Google Earth, 2022.



Image showing west façade. Google Earth, 2024.

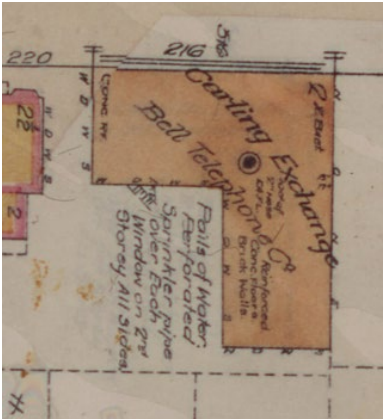


Image showing east façade.
Google Earth, 2024.

During its use as the Carling Exchange for the Bell Telephone Company, the basement of the building comprised of lockers, washrooms for operating staff, an assembly hall, the furnace and battery rooms. The rear end of the first floor had the terminal and power rooms for the operation of the exchange with the wire distribution system for telephone service. The front facing section of the first floor had the operators' quarters, including a kitchen, lunch rooms and a quiet room known as 'the hospital' which staff could use if

they were feeling unwell. The first floor also had a general sitting or resting room overlooking the lawn and garden and another smaller room for the use of the chief operator and supervisors. The upper storey was all switchboard operating space with the projected capacity for eight thousand and eight hundred subscribers in three or four years from the building's inauguration.¹

Alterations and Additions



1922 Fire Insurance Plan



1931 Aerial Image



Google Maps, 2024

The building shape has remained unchanged since its opening and no additions can be seen on maps through the years. The interiors have undergone renovations to accommodate changes in usage of the building from telephone exchange to office spaces for multiple companies.

¹ The Ottawa Citizen, April 24, 1913. <https://www.newspapers.com/image/455598244/>

Renovating Building For Bell Telephone

Extensive renovations to the Bell Telephone Company building at 200 First Avenue will commence in the near future, it was announced today by C. deL. Harwood, Ottawa district manager of the Bell Telephone Company of Canada.

The building will house the Eastern Ontario division plant offices, as well as the Ottawa Valley district offices and engineering and construction department offices, the manager stated.

The renovations to the building, which once housed the Ottawa Carling exchange, were designed by Messrs. Hazelgrove, Lithwick and Cameron, of Ottawa. The contract for the work of altering the building to make it suitable for modern office purposes was awarded to George A. Crain and Sons, Ottawa.

200 FIRST AVENUE

PRIME central executive office space for lease, undergoing quality renovations, individual offices, 120 sq. ft. - 285 sq. ft. Common reception/waiting area 3,200 sq. ft. semi basement, can be divided. Range from \$350 - \$650 gross per month. Contact Ian or Peter, 236-4798

Renovations in 1947 (The Ottawa Journal, 1947) and 1982 (The Ottawa Citizen, 1982).

Description of Architectural Style

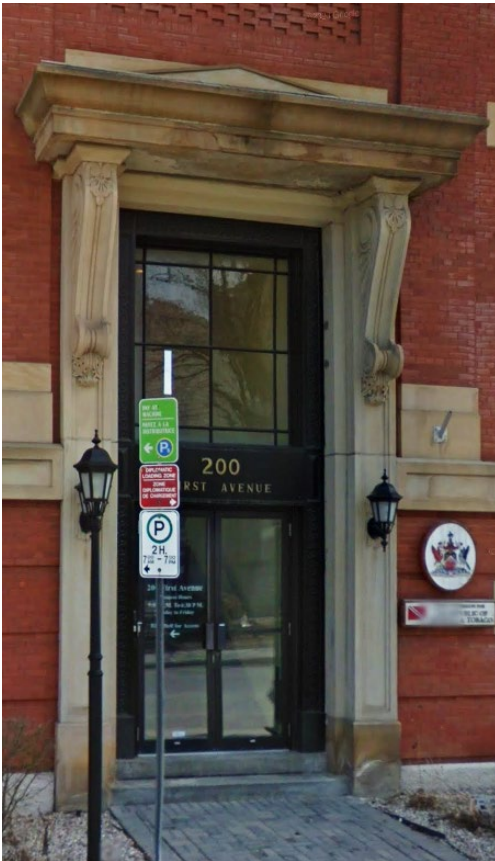
200 First Avenue is a building which evokes grandeur, stability and permanence through its wide massing, symmetrical façade, and central entrance. However, its stylistic elements are understated. Including its careful alterations completed for the building's evolving uses, 200 First Avenue is representative of a turn of the century Beaux-Arts style office building.

The Beaux-Arts style, developed in the last decades of the 19th century at the École des Beaux-Arts in Paris is known for being grand, eclectic and dramatic.² The Beaux-Arts style is eclectic, incorporating classical, and less commonly, renaissance and baroque elements.³ Buildings of the Beaux-Arts style display balance and symmetry, and modern materials such as iron and glass.⁴ The property displays classical elements including an entranceway with a pediment and brackets with ionic scroll design, pilasters of the doric order distinguishing each bay of the façade, and heavy cornices.

² Ontario Architecture. (n.d.) Beaux Arts (1885-1945). <http://www.ontarioarchitecture.com/Beauxarts.htm>

³ Heritage Wilmot. (2022). Wilmot Township Architectural Guide. https://www.wilmot.ca/en/living-here/resources/Heritage-Wilmot/Wilmot-Architecture-Master-Document_FINAL_June-6-2022.pdf; Ontario Heritage Trust. (n.d.) Architectural Style. <https://www.heritagetrust.on.ca/places-of-worship/places-of-worship-database/architecture/architectural-style>

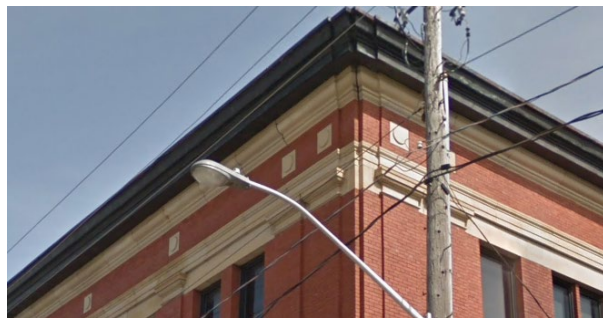
⁴ Ibid.



Entranceway with stone entablature, ionic brackets and pediment



Pilasters on façade spanning two storeys



Stone cornice and roundels lining the top of the building

Local and National Context

Canadian and American architects who attended the École des Beaux-Arts brought the Beaux-Arts style to North America. In Canada, the Beaux-Arts style dominated in public and commercial buildings during the first two decades of the twentieth century.⁵

The use of the Beaux-Arts style in Canada was meant to evoke a sense of permanence and economic success in Canadian cities.⁶ The style was often used in the City Beautiful movement of the late nineteenth and early twentieth centuries, a movement which used urban planning and architecture to beautify and harmonize city centers.⁷ The predominant use of Beaux-Arts architecture in Ontario was for civic buildings.⁸ In

⁵ Thomas, C. (2006). Canadian Architecture: 1867-1914. The Canadian Encyclopedia.

⁶ Ibid.

⁷ Ibid.

⁸ Ontario Heritage Trust. (n.d.) Architectural Style. <https://www.heritagetrust.on.ca/places-of-worship/places-of-worship-database/architecture/architectural-style>

Ottawa, the rise of twentieth century beautification projects in the downtown core led to the development of important buildings such as the Chateau Laurier and the Beaux-Arts style Union Station.⁹



Ottawa's former Union Station, an exuberant expression of the Beaux Arts style. Library of Parliament. Constructed 1912.



251 Besserer Street, historically known as the Rideau Exchange, is the architectural twin of 200 First Avenue. Constructed in 1912.



Ottawa's Carnegie Library, demolished. Constructed in 1906.



New Hamburg Branch of the Region of Waterloo Library. 145 Huron Street. Constructed in 1915.

⁹ Powell, J. (n.d.) Ottawa the Beautiful: The Gréber Report. The Historical Society of Ottawa.
<https://www.historicalsocietyottawa.ca/publications/ottawa-stories/changes-in-the-city-s-landscape/ottawa-the-beautiful-the-greber-report>



Bank of Montreal building in Norwich, Ontario.
Built in 1916.

Criterion 2	
The property has design value or physical value because it displays a high degree of craftsmanship or artistic merit.	No
Response to Criterion The property displays a moderate degree of craftsmanship typically visible on commercial buildings designed in the similar architectural styles. The property does not meet this criterion.	

Criterion 3	
The property has design value or physical value because it demonstrates a high degree of technical or scientific achievement.	No
Response to Criterion Heritage staff have compared the building to others of similar age or typology and consulted relevant secondary sources including newspaper articles and architectural history books. Staff's review concluded that this property exemplifies typical construction methods for buildings of its type. The property does not meet this criterion.	

Criterion 4	
The property has historical value or associative value because it has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community.	Yes
Response to Criterion The former Rideau Exchange has historical value for its direct associations with the Bell Telephone Company and the themes of development of telecommunications in Ottawa and women in the Canadian workforce. Purpose-built in 1912 as the second Bell Telephone Company switchboard exchange in Ottawa, the Rideau Exchange provided telephone services to the surrounding area until the 1940s. The property symbolizes a time of growth, technological advancement, and increased wealth in Ottawa. The former Rideau Exchange building sheds light on the history of women in the Canadian workforce. The Bell Telephone Company was established in 1877 and the first telephone exchange in Canada was built in 1878 in Hamilton, Ontario. By the year 1900, Bell exclusively hired women to work as switchboard operators, a position that demanded a high degree of patience, quick thinking and physical exertion. The property shines a light on the important history of women in the Canadian workforce.	

Supporting Details – Criterion 4

200 First Avenue was purpose-built in 1913 as the Carling Exchange for the Bell Telephone Company, the third exchange providing telephone services to the Glebe area. The Rideau Exchange at 251 Besserer Street, constructed in 1912 was the second exchange building in Ottawa at the time, and the Queen Exchange at 60 Queen Street was the first, established in 1880.

The decision to establish exchanges was due to the increased demand for telephone, and therefore signifies increased wealth and population, and openness to new technology in Ottawa. One more telephone exchange was built in Ottawa in 1919, called the Sherwood Exchange, on 43 Eccles Street. All four exchanges ended operations in the early 1940s as Ottawa shifted to dial-in technology.

Bell was established in 1877, after Alexander Graham Bell received a patent for the Bell telephone on March 7, 1876¹⁰. Bell transferred 75% of the patent rights to his father, Melville, who established the company in Canada¹¹. The first commercial telephone exchange was built in New Haven, Connecticut in 1878¹². In 1879, Melville Bell sold the patent rights to William H. Forbes and his associates at the National Bell Telephone Company of Boston and joined his son in his work in Boston. On April 29, 1880, The Bell Telephone Company of Canada received the rights to construct telephone lines across Canada¹³. Today, the Canadian company is known as Bell Canada, while the American National Bell Telephone Company evolved into The American Telephone and

¹⁰ BCE, n.d.

¹¹ Ibid.

¹² Harvard, n.d.

¹³ BCE, n.d.

Telegraph Company (AT&T)¹⁴. The predecessor to telephones was the use of telegraphs, which was invented by Samuel Morse in 1837.

The first telephone exchange in Canada, often referred to as the first telephone exchange in the British Empire, was established in Hamilton, Ontario in 1878¹⁵.

In major Canadian cities, two competing companies provided telephone service: The Dominion Telegraph Company and the Montreal Telegraph Company¹⁶. Telephone subscribers of one company were unable to make or receive calls from subscribers of the other company. The first telephone exchange in Ottawa was established in January 1880 by the Dominion Telegraph Company under the management of Warren Soper¹⁷. Shortly after, the Montreal Telegraph Company established its exchange with local agent Thomas Ahearn.

Ahearn and Soper were both influential figures in Ottawa's history. Along with telephones, they were responsible for providing Ottawa with electric light and the streetcar system¹⁸.

Later in the same year, the Bell Telephone Company of Canada bought out both the Dominion Telegraph Company and Montreal Telegraph Company in June and November, respectively, and set up the Queen Exchange on 60 Queen Street with Ahearn continuing as manager until 1895¹⁹. Ahearn later became a director of the Bell Telephone Company²⁰.

¹⁴ Harvard, n.d.

¹⁵ The Hamilton Spectator, 2016; Plaque, 8 Main Street East, Hamilton, Ontario.

¹⁶ The Ottawa Citizen, 1939.

¹⁷ Vlasveld, 2020

¹⁸ Powell, 1892.

¹⁹ The Ottawa Citizen, 1939.

²⁰ Ibid.

**A
NEW ISSUE**
OF THE
Telephone Directory

for Eastern Ontario, including Ottawa and Hull, is now being prepared, and will soon be distributed.

Owing to the opening of the new "Rideau" exchange, a great many changes are necessary in this issue, so that subscribers requiring any changes in their entry should report it at once.

If you are not a subscriber, now is the time to place your order so that your name may appear in the new book.

THE BELL TELEPHONE CO. OF CANADA
J. E. MACPHERSON, - District Superintendent.



J. E. Macpherson was manager of Bell in Ottawa for 20 years (The Ottawa Journal, 1939). Macpherson was appointed to Executive Assistant in 1923, and then promoted to Vice President of Bell Canada in 1925. Image from The Ottawa Journal, 1912.

Exchanges were locations where switchboards were operated to connect callers. Power for the telephones was provided from the exchange, called "central energy" or "common battery"²¹. A telephone subscriber who needed to speak with another subscriber would pick up the phone which would connect immediately to the switchboard, indicated by a glowing light, and hear the operator ask "Number, please?". The operator would then connect the call by plugging the ringing cable into the relevant jack on their switchboard. If the number belonged to another region, the operator would transfer the call to the correct exchange where another operator would connect the caller.

In the year 1921, Bell Telephone hosted 'telephone week' at the four exchanges in Ottawa, which allowed the general public to visit the exchanges and learn about how calls are made. The success of the event in 1921 led to more telephone weeks in upcoming years.

²¹ Hicken, 2024



The Ottawa Journal, November 1921.



The Ottawa Journal, May 1939.

Women's History

The Bell Telephone Company was established in 1877, and by the year 1900, all telephone operators hired at exchange buildings were women²². The decision to hire only women emerged from an experiment done in 1888 which found that men were "seldom polite and submissive to irate or rude subscribers but 'matched insult for insult'."²³. However, the wage rates for women operators were also lower than for men. Furthermore, to qualify, women had to be physically fit, at least a certain height, and had to prove good hearing and eyesight²⁴. Women who wore eyeglasses, were unhealthy, and lacked the skills of "enunciation, education and penmanship" were dismissed, which disqualified many immigrants and women without formal education²⁵. However, the Royal Commission revealed that even with these specifications, the operators' working conditions did not necessarily reflect a higher class or result in higher wages, and instead resembled blue collar work. Although operators conducted important and demanding work, the starting salary was \$18 a month, increasing to \$25 after three years of service. Comparatively, the average rate of skilled women in the industry was \$30 a month, and for men, it was \$40 - \$60²⁶.

²² Sangster, 1978

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

Whenever there is a village fire, when tragedy strikes, or if a national calamity occurs, you can bet your last buck that the unsung heroine of it all will probably be the Bell Telephone operator.

The Ottawa Citizen, 1959



Ottawa Long-Distance Switchboard Operators, Bell Telephone Co. Chris Lund, December 1961. Library and Archives Canada.

As the number of telephone subscribers grew, technology had to adapt to the increase in lines and frequency of calls. Operators became overwhelmed by the volume of calls and callers formed queues.

Ottawa shifted to dial in technology in the early 1940s. The switchboard operated exchanges were no longer in use. Instead, dial in exchanges were opened which had machinery perform the task of connecting callers. Callers would now hear a dial tone instead of the “Number, please?” and use their rotary dial phones to input the number.

In 1947, 200 First Avenue was still owned by Bell Telephone, being used as the Eastern Ontario division plant offices, the Ottawa Valley district offices and the engineering and construction department²⁷. In 1982, offices were being rented out to other companies²⁸. In 1986, the building was listed for sale²⁹. 200 First Avenue was then home to various private firms. In the 1980s, it was home to Oakes & Marshall Solicitors, Wood, Banani & Associates Ltd., Dunlop Farrow Aitken Cansfield Architects and Engineers, Hinds, Brian & Associated Ltd., Fifth Dimension CAD CAM, Quorum Graphics and ADI Ltd. Engineering Consultants. In the 1990s, it was home to Dunlop Farrow Architects, Christopher Simmonds Architects and BRIDGES Consulting. Since 2002, the building has been owned by the High Commission of Trinidad and Tobago³⁰.

²⁷ The Ottawa Journal, 1947

²⁸ The Ottawa Citizen, 1982

²⁹ The Ottawa Journal, 1986

³⁰ Taitt, 2002. TT Newsday

Criterion 5	
The property has historical or associative value because it yields, or has the potential to yield, information that contributes to an understanding of a community or culture.	No
Response to Criterion Bell exchange buildings have the potential to yield historical information significant to the understanding of women in the Bell workforce; their situation, struggles and demands. However, in the research conducted for this property, not much was found relevant to the operators who worked at this building.	

Criterion 6	
The property has historical value or associative value because it demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.	Yes
Response to Criterion The property has historical value because it demonstrates the work of prominent Ottawa architect J. A. Ewart. Ewart was the architect for Ottawa's first telephone exchange, known as the Queen Exchange at 60 Queen Street and likely the second telephone exchange at 251 Besserer Street, which is an architectural twin of the 200 First Avenue property. Ewart's most well-known works includes the Booth Building (165 Sparks Street), the Wellington Building (former Metropolitan Life Assurance Building), Knox Presbyterian Church at 120 Lisgar Street, and several schools.	

Supporting Details – Criterion 6

200 First Avenue is attributed to prominent Ottawa architect John Albert Ewart³¹. J. A. Ewart, son of David Ewart, Chief Architect of the Department of Public Works, was born in Ottawa in 1872³².

The first telephone exchange in Ottawa, the Queen Exchange, was designed by Arnoldi & Calderon in 1892. Ewart apprenticed in the office of Arnoldi and Calderon from 1887 to 1891³³. In 1891, Ewart studied at the School of Practical Science at the University of Toronto and moved back to Ottawa after graduating in 1895. Upon returning to Ottawa, he became a full partner of King M. Arnoldi's firm until 1904. The first telephone exchange in Ottawa, the Queen exchange, was designed by Arnoldi & Calderon in 1892³⁴. The contract record for the Queen Exchange lists Ewart as the architect.

Ewart briefly worked as a draftsman for Band, Burritt & Meredith. In 1906, he opened an office under his own name and designed many notable buildings in Ottawa for the next 45 years. His best-known works include several schools for the Ottawa School Board including the collegiate gothic style Glebe Collegiate Institute in 1922 and commercial buildings including the Chicago school Neogothic style Transportation Building in 1916,

³¹ Hill, n.d.

³² Ibid.

³³ Ibid.

³⁴ Ibid.

one of the first Ottawa skyscrapers. He also designed several public buildings and factories³⁵.

200 First Avenue's architectural twin, historically the Rideau exchange, is located on 251 Besserer Street. The Rideau exchange was designed in 1912, one year before the Carling exchange.



Left: 251 Besserer Street; Right: 200 First Avenue

Ottawa, Ont.
Exchange, cost \$45,000, 1st ave., for
Bell Telephone Co., Queen street. Ar-
chitect, J. Albert Ewart, 193 Sparks St.
General contractor, Geo. Crain, Clemow
ave. Carpentry, J. & C. Low, 262 Cath-
erine. Iron and steel, Dominion Bridge
Co., Sparke street.

The Contract Record and Engineering Review, 1913.

J. A. Ewart's most well-known works include the Booth Building (165 Sparks Street), the Wellington Building (180 Wellington Street), Knox Presbyterian Church (120 Lisgar Street), the May Court Club (114 Cameron Avenue), and several schools in the Old Ottawa South area as he was the main architect for the Ottawa Collegiate Institute Board. Ewart was also a member of the Royal Architectural Institute of Canada and an honorary life member of the Engineering Institute of Canada. He was appointed to the Federal District Commission and had a long-standing association with the Ottawa Collegiate Board. Ewart was the son of David Ewart, the Chief Dominion architect who was responsible for the many federal buildings constructed at the turn of the century including the Connaught Building, the Victoria Memorial Building and the Dominion Observatory.

³⁵ OAA, n.d.

Criterion 7	
The property has contextual value because it is important in defining, maintaining or supporting the character of an area.	Yes
Response to Criterion The former Carling Exchange has contextual value because it is important in supporting the character of the Glebe neighbourhood. The property is located near Bank Street, the neighbourhood's central artery for commercial activity. The former Carling Exchange visually and thematically aligns with the commercial buildings in the area which have low and wide massing, and feature rich exterior materials including red and buff-coloured brick veneers, wood and limestone. Many of their façades employ heavy cornices, and stone lintels, sills and keystones juxtaposed with red brick.	

Supporting Details – Criterion 7

200 First Avenue visually and thematically aligns with the buildings in the Glebe neighbourhood, projecting out of the central artery for commercial activity, Bank Street. The commercial buildings which form the character of the Glebe have low and wide massing with the consistent use of rich exterior materials including red- and buff-brick veneers, wood and limestone. Although a variety of architectural styles are present throughout these buildings, many of their façades employ heavy cornices, and stone lintels, sills and keystones juxtaposed with red brick.



Mayfair Theatre



Ottawa Hydro Substation #2



Glebe Collegiate Institute



Ambassador Court Apartments,
612 Bank Street



Ottawa Chinese United
Church



779 Bank Street



800 Bank Street



834 Bank Street



691 Bank Street

Criterion 8

The property has contextual value because it is physically, functionally, visually or historically linked to its surroundings.

Yes

Response to Criterion

The property has contextual value because it is historically and functionally linked to its surroundings. Although the history of the Glebe dates to the construction of the Rideau Canal in 1827, the neighbourhood flourished and grew in the 1870s and evolved into a streetcar suburb with the extension of the streetcar line in 1891. The establishment of the Carling Exchange is linked to the neighbourhood and city's growth and development in the early 20th century. The expanding demand for services such as telephone and electricity are seen in this building and other related infrastructure such as Hydro Substation No. 2 on Glebe Avenue.

Supporting Details – Criterion 8

The first recorded settler in the Glebe was George Patterson, Chief of the Canal Commissariat, who built a permanent home in 1826.

Although the neighbourhood was considered run down, Bank Street extended to Patterson's Creek as a toll road by 1866 and a number of French and Irish squatters were evicted from the area by 1870, thereby inspiring new development and growth.

Hotels soon appeared along Bank Street, such as James Meakin's Gate Hotel built in 1869 (now the site of the Ambassador Court Apartments). Simple front-gabled houses, belonging mainly to market gardeners, were first built east of Bank Street in the 1870s and 1880s. When the streetcar line was extended south in 1891, the Glebe – Dows Lake area grew as an important residential area of the city with significant institutional landmarks, especially educational and religious institutions such as Mutchmor School, First Avenue School, Corpus Christi School, and Glebe Collegiate. Commercial enterprises established at this time including grocery stores, hardware stores, gas stations, shops allowed the Glebe to be a self-sufficient neighbourhood.

Two Ottawa Citizen articles from 1912 and 1919 explain that new telephone exchanges were built to cater to the increased demand in Ottawa for telephone at the time as well as the projected growth and development of the city in upcoming years (Included in Appendix).

The 1912 article justifies the opening of a new telephone exchange building, writing “The rapid growth of the city and the consequent increase in number of installation of telephones made the erection of a new exchange necessary in Ottawa. The number of subscribers is rapidly approaching the ten thousand mark and to handle the big volume of calls from this number of phones from one office is practically impossible owing to the necessity of having the requires number of operators under one roof in the same room”.

The 1919 article explains that the number of telephone subscribers in Ottawa rose from 11,565 in 1915 to 20,650 in 1919, almost doubling in four years. Examining population, it was found that in 1919, 1 out of 6 people had a telephone subscription in Ottawa, while in Toronto the ratio was 1 to 9, and in Kingston it was 1 to 10. “Ottawa is growing in population, in commercial institutions and in wealth!”. The article goes on to write that the building of another exchange was necessary to accommodate this increased number of subscribers and forecasted telephone demand for the next 5 years.

The chosen location for the telephone exchange is further indication that the Glebe at the turn of the century was an area that was accepting of change and was growing quickly in population and wealth. The expanding demand for services such as telephone and electricity are seen in this building and other related infrastructure such as Hydro Substation No. 2 on Glebe Avenue.

Criterion 9	
The property has contextual value because it is a landmark	No
Response to Criterion Although 200 First Avenue is a well preserved and large red brick building in the Glebe neighbourhood, it is located away from the arterial Bank Street in a quieter residential area. The property does not meet the landmark criterion.	

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Appendix

was really unique. Way back in the old pre-war days we had a Rideau and a Queen exchange. Carling also had been begun. But in 1915 the number of subscribers amounted to only 11,565 while today the list comprises 20,650 or an increase of 9,085. In fact in four short years, Ottawa has nearly doubled its telephone subscription list. In this respect, Ottawa, which has 1 telephone to every 6 of the population, is considerably farther advanced than Toronto, which has 1 for every 9 and Kingston, which has 1 for 10 of the population. Ottawa is growing in population, in commercial institutions, and in wealth!

To take care of this increased telephone demand which came upon the heels of Ottawa's greater business and to provide for prospective development and increase during the next five years, it became necessary in addition to the outside plant, such as underground and aerial cable, to arrange for another exchange. The

The Ottawa Citizen, 1912

To the average citizen, the event of connecting up a new telephone exchange holds but little importance, but a brief description of how the work is accomplished and the need of it, is both interesting and instructive. The rapid growth of the city and the consequent increase in number of installation of telephones, made the erection of a new exchange necessary in Ottawa. The number of subscribers is rapidly approaching the ten thousand mark, and to handle the big volume of calls from this number of 'phones from one office is practically impossible owing to the necessity of having the required number of operators under one roof in the same room.

The Ottawa Citizen, Sep 13, 1919

Why So Many Exchanges?

WHY do you build exchanges at so many different points in the same city?" a subscriber asks; "Why not have one big exchange serving the whole city?"

Q There are two basic reasons for multiplying exchanges.

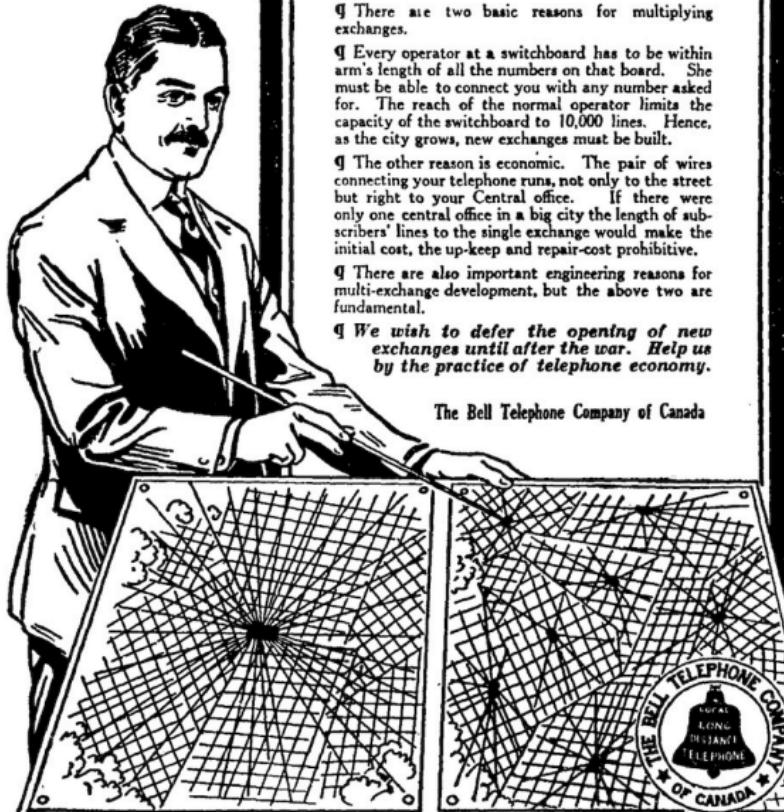
Q Every operator at a switchboard has to be within arm's length of all the numbers on that board. She must be able to connect you with any number asked for. The reach of the normal operator limits the capacity of the switchboard to 10,000 lines. Hence, as the city grows, new exchanges must be built.

Q The other reason is economic. The pair of wires connecting your telephone runs, not only to the street but right to your Central office. If there were only one central office in a big city the length of subscribers' lines to the single exchange would make the initial cost, the up-keep and repair-cost prohibitive.

Q There are also important engineering reasons for multi-exchange development, but the above two are fundamental.

Q We wish to defer the opening of new exchanges until after the war. Help us by the practice of telephone economy.

The Bell Telephone Company of Canada



Telephone Economy Talk No. 13. 1918.