# **Ontario Regulation 9/06 Assessment**

Address: 43 Eccles Street Date: Prepared by: Heritage Staff



Source: Google Earth, 2019

# **Executive Summary**

43 Eccles Street is a two-storey red brick Edwardian Classical building with a raised basement. 43 Eccles is located between Booth Street and Bronson Street in the West Centretown neighbourhood.

Purpose built in 1919, 43 Eccles served as the Sherwood Exchange, the fourth Bell Telephone Company telephone exchange in Ottawa, providing services to the Western suburbs of Ottawa including Hull and Westboro until the 1940s. The building is an example of the Edwardian Classicism architectural style, and is visually representative of the typology of Bell Telephone exchange buildings across Ontario.

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,	Yes
material or construction method.	
Response to Criterion	
Designed in 1919 by Chief Architect of the Bell Telephone Company of Canada at the	
time, William John Carmichael, 43 Eccles Street is a two-storey red brick building	
representative of the Edwardian Classicism architectural style and visually aligns with	
the typology of Bell Telephone exchange buildings across Ontario. The build	ing
features a red brick façade with dentilled cornice and contrasting stone quoins,	
keystones, and a carved stone pediment over its entrance. Similar classical features	
are visible on other exchange buildings designed by Carmichael.	

### Supporting Details – Criterion 1

# Description of Building

43 Eccles Street is a two-storey red brick building with a raised basement, representative of the Edwardian Classicism architectural style. It is located in the West Centretown neighbourhood. 43 Eccles Street is a rectilinear building with dentilled cornice and contrasting stone quoins, keystones, carved stone pediment over entrance.



Alterations and Additions



1922 Fire Insurance Plan



Google Earth, 2024

No major additions or alterations are visible in the building's massing or façade over time.

# Description of Architectural Style

Edwardian Classism is associated with the British monarch Edward VII who reigned from 1901 to 1910. The style developed in England from the Beaux Arts movement with revived Classism through an eclectic and selective application of Classical forms.<sup>1</sup> Edwardian Classism was popularized around the turn of the 20<sup>th</sup> century to the end of the First World War.<sup>2</sup> In response to the transforming social climate, Edwardian Classicism featured simplified forms with balanced façades and central entrance, in contrast to the Late Victorian architectural styles with asymmetrical, eclectic, and complex forms.<sup>3</sup> It was used on large scale public and commercial buildings to demonstrate the nation's imperial power, and colonies including Canada quickly adopted the style and its application to residential buildings.<sup>4</sup>

In Ontario, Edwardian Classism was most popular during the first quarter of the 20<sup>th</sup> century.<sup>5</sup> Edwardian Classism served as a transition between the eclectic styles of residential architecture from the 19th century towards the simplified designs of the mid-20th century.<sup>6</sup> The Edwardian Classism architectural style in Ontario is characterized by its compact, square or rectangular massing, balanced façades, flat rooflines, simple colour schemes, smooth brick surfaces with multiple windows with stone sills, understated application of Classical features (colonettes, voussiors, keystones,

<sup>&</sup>lt;sup>1</sup> Ricketts, S. Maitland, L. and Hucker, J. (2004). *A Guide to Canadian Architectural Styles*, Second Edition, (Toronto: Broadview Press) 123.

<sup>&</sup>lt;sup>2</sup> Kyles, S. "Edwardian (1890-1916)," Ontario Architecture; "Ontario Architectural Style Guide," University of Waterloo Heritage Resources Centre.

<sup>&</sup>lt;sup>3</sup> Blumenson, J. Ontario Architecture: A Guide to Styles and Building Terms 1784 to the present, (Canada: Fitzhenry & Whiteside, 1990), 166.

<sup>&</sup>lt;sup>4</sup> Ricketts, S. Maitland, L. and Hucker, J. A Guide to Canadian Architectural Styles, 127.

<sup>&</sup>lt;sup>5</sup> Blumenson, Ontario Architecture: A Guide to Styles and Building Terms 1784 to the present, 166.

<sup>&</sup>lt;sup>6</sup> Kyles, S. "Edwardian (1890-1916)," Ontario Architecture

cornices, columns, pilasters, pediments etc.), entrance in the porch or verandah, and restrained ornamentation.<sup>7</sup>

# Local and National Context

Examples of Edwardian Classicism in Ottawa date from the end of the 19<sup>th</sup> century into the late 1930s. A few buildings constructed in this style were public buildings such as schools, however the majority were constructed for residential purposes.

43 Eccles Street visually represents the typology of Bell Telephone buildings designed by the company's chief architect at the time, William John Carmichael. Carmichael's designs were industrial in nature, to cater to the function of Bell Telephone exchange buildings. However, the building's façades were well proportioned, decorated with classical elements and included monumental entrance porticos.

The Bell Telephone Exchange buildings in Brockville, Lindsay, Collingwood, and other locations across Ontario are rectilinear two-storey red brick buildings with a noncentralized entrance which interrupts an otherwise symmetrical façade. The buildings feature similar elements such as contrasting stone quoins and keystones, carved pedimented entranceways and dentilled cornicing. Carmichael's example in Toronto displays his range in working with the unique sites and functionalities of the various Bell Telephone buildings, while maintaining classical detailing and uniformity across his buildings.

More information on the architect is under criterion 6.



39 Apple Street, Brockville, 1915.



33 William Street, Lindsay, 1917.

<sup>&</sup>lt;sup>7</sup> "Architectural Style: Edwardian Classicism," Ontario Heritage Trust; "Ontario Architectural Style Guide," 18.



150 Hurontario Street, Collingwood, 1917-19.

criterion.



80 Birmingham Street, Etobicoke, 1926.



1030 Dufferin Street, Toronto, 1918.

Criterion 2	
The property has design value or physical value because it displays a high	No
degree of craftsmanship or artistic merit.	NO
Response to Criterion	
The property displays a moderate degree of craftsmanship typically visible on commercia	
buildings designed in the building's architectural style. The property does not r	neet this

Criterion 3The property has design value or physical value because it demonstrates a<br/>high degree of technical or scientific achievement.NoResponse to CriterionHeritage staff have compared the building to others of similar age or typology and<br/>consulted relevant secondary sources including newspaper articles and architectural<br/>history books. Staff's review concluded that this property exemplifies typical construction<br/>methods for buildings of its type. The property does not meet this criterion.

5

Criterion 4	
The property has historical value or associative value because it has direct	
associations with a theme, event, belief, person, activity, organization or	Yes
institution that is significant to a community.	

#### Response to Criterion

43 Eccles Street 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.

43 Eccles Street was purpose-built in 1919 as the Sherwood Exchange, the fourth switchboard telephone exchange in Ottawa for the Bell Telephone Company of Canada. This property symbolizes a time of growth, technological advancement, and increased wealth in Ottawa.

The Bell Telephone Company was established in 1877 and the first telephone exchange in Canada was built in 1878. 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. 43 Eccles Street is a property that sheds light on the important history of women in the Canadian workforce.

Supporting Details – Criterion 4



"A reminder of Bell Telephone's many years at 43 Eccles Street. The building's most noble feature was this impressive pediment over the front door." Roger Swetnam, The BUZZ.

43 Eccles Street was purpose-built in 1919 as the Sherwood Exchange for the Bell Telephone Company, providing telephone services to the Western suburbs of Ottawa including Hull and Westboro. The Sherwood Exchange was the fourth and final switchboard exchange built in Ottawa. Three more telephone exchanges were built in Ottawa: The Queen Exchange built in 1892 on 60 Queen Street providing services to Uppertown, the Rideau Exchange on 251 Besserer Street providing services to Lowertown and The Carling Exchange built in 1913 on 200 First Avenue providing services to the Glebe. All four exchanges ended operations in the early 1940s as Ottawa shifted to dial-in technology.

The Bell Telephone Company of Canada was established in 1877, after Alexander Graham Bell received a patent for the Bell telephone on March 7, 1876.<sup>8</sup> Bell transferred 75% of the patent rights to his father, Melville, who established the company in Canada. The first commercial telephone exchange was built in New Haven, Connecticut in 1878.<sup>9</sup> 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.<sup>10</sup> On April 29, 1880, The Bell Telephone Company of Canada received the rights to construct telephone lines across Canada.<sup>11</sup> Today, the Canadian company is known as Bell Canada, while the American National Bell Telephone Company (AT&T).<sup>12</sup> 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 1878.<sup>13</sup>

In major Canadian cities, two competing companies provided telephone service: The Dominion Telegraph Company and the Montreal Telegraph Company.<sup>14</sup> 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 Soper.<sup>15</sup> 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 system.<sup>16</sup>

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

<sup>&</sup>lt;sup>8</sup> BCE, n.d.

<sup>&</sup>lt;sup>9</sup> Harvard, n.d.

<sup>&</sup>lt;sup>10</sup> BCE, n.d.

<sup>&</sup>lt;sup>11</sup> Ibid.

<sup>&</sup>lt;sup>12</sup> Harvard, n.d.

<sup>&</sup>lt;sup>13</sup> The Hamilton Spectator, 2016; Plaque, 8 Main Street East, Hamilton, Ontario.

<sup>&</sup>lt;sup>14</sup> The Ottawa Citizen, 1939.

<sup>&</sup>lt;sup>15</sup> Vlasveld, 2020

<sup>&</sup>lt;sup>16</sup> Powell, 1892.

Ahearn continuing as manager until 1895.<sup>17</sup> Ahearn later became a director of the Bell Telephone Company.<sup>18</sup>



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.

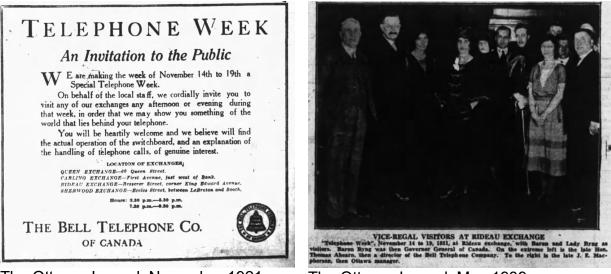
Exchanges were locations where switchboards were operated to connect callers. Power for the telephones was provided from the exchange, called "central energy" or "common battery".<sup>19</sup> A telephone subscriber who needed to speak with another subscriber would pick up the phone which would connect 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.

<sup>&</sup>lt;sup>17</sup> The Ottawa Citizen, 1939.

<sup>&</sup>lt;sup>18</sup> Ibid.

<sup>&</sup>lt;sup>19</sup> 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 women.<sup>20</sup> 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'."<sup>21</sup> 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 eyesight.<sup>22</sup> 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 education.<sup>23</sup> 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 - \$60.<sup>24</sup>

<sup>&</sup>lt;sup>20</sup> Sangster, 1978

<sup>&</sup>lt;sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>&</sup>lt;sup>23</sup> Ibid.

<sup>24</sup> 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.



The Italian Businessmen's Association then acquired the building and sold it in 1973.<sup>25</sup> In 1975, it was a doctor's office which was a much-needed service in the neighbourhood at the time.<sup>26</sup> 43 Eccles has since housed several organizations, including the Humane Society in 1986, Environmental Engineering Consultants Ltd. In 1989, North American Security Services in 2000, St. Joseph Media until 2019 and subsequently Tree Canada, as well as the Gadget Software and Arborus Consulting at unknown dates. It has also housed the architectural practices of Christopher Simmonds and Linda Chapman and today is the offices of Ardington and Associates Design.

<sup>&</sup>lt;sup>25</sup> The Ottawa Journal, 1973.

<sup>&</sup>lt;sup>26</sup> The Ottawa Citizen, 1975.

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	No
community or culture.	
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,	Yes
designer or theorist who is significant to a community.	
Response to Criterion	
This property has historical value as it was designed by William John Carmichael, the	
chief architect for the Bell Telephone Company. Between 1899 and 1926,	
Carmichael's name is linked with nearly 100 new buildings for the Bell Telep	hone

Carmichael's name is linked with nearly 100 new buildings for the Bell Telephone Company. As chief architect, he also designed warehouses for the Northern Electric Company and was also in charge of all major alterations, additions and extensions to existing Bell Telephone exchange buildings.

### Supporting Details – Criterion 6

This property was designed by William John Carmichael, the chief architect for the Bell Telephone Company. He designed nearly one hundred Exchange buildings across Canada. Carmichael was born in Montreal in 1867 and studied engineering at McGill University. In 1893 he worked as draftsman and assistant to Edward Maxwell, and in 1895 he joined the Bell Telephone Company as Clerk-of-Works in charge of construction at the company's headquarters in Montreal. In 1917 he was promoted to Chief Architect for the Bell Telephone Company. Carmichael worked with two assistants, Frederick J. Macnab and Newstead A. Allen, to design many telephone exchange buildings in Ontario and Quebec, as well as supply warehouse buildings for Bell Canada's mechanical department, the Northern Electric Company, in Manitoba and Alberta. Overall, nearly 100 Bell buildings are attributed to Carmichael.<sup>27</sup> Carmichael was also in charge of all major alterations, additions and extensions to existing Bell Telephone exchange buildings that were built to accommodate the rapid growth of the telephone network system in the early 20th C.

For more information about Bell Telephone Exchange buildings designed by W. J. Carmichael, refer to the supporting details section for Criterion 1.

<sup>&</sup>lt;sup>27</sup> Hill, (n.d.).

Criterion 7	
The property has contextual value because it is important in defining,	Yes
maintaining or supporting the character of an area.	res
Response to Criterion	
The former Sherwood Exchange has contextual value because it is importar	nt in
defining and maintaining the character of Dalhousie, a mixed neighbourhood	l that
includes many early 20th century red brick buildings in the Edwardian Classic	cist and
Italianate styles.	
Supporting Details Criterion 7	

# Supporting Details – Criterion 7

The former Sherwood Exchange has contextual value because it is important in defining and maintaining the character of Dalhousie, a mixed neighbourhood that includes many early 20<sup>th</sup> century red brick buildings in the Edwardian Classicist and Italianate styles. Like the former Sherwood Exchange, these buildings are often two storeys in height with heavy cornices, some dentilled, and feature decorative brickwork and classical elements such as pediments and columns.



116 Rochester Street c.1900



134 Eccles Street c. 1912



11-13 Eccles Street c. 1915



802 Somerset St W c. 1900



713 Somerset Street W

Criterion 8	
The property has contextual value because it is physically, functionally,	Yes
visually or historically linked to its surroundings.	162
Response to Criterion	
The property has contextual value because it is historically and functionally lisurroundings. The former name for the building, the former Sherwood Excha linked to the former name of the neighbourhood, Mount Sherwood, which wa established in the 1820s and annexed to the City of Ottawa in 1889. The establishment of the Sherwood Exchange in 1919 is linked to the and city's g development in the early 20 <sup>th</sup> century and the expanding demand for telepho services. The growth in population in the area in the early 20 <sup>th</sup> century is men through large institutional buildings nearby such as the Plant Bath (1924) and	nge, is is growth and ne morialized
Luke's Anglican Church (1922) replacement of older church building which had	
succumbed to fire in 1889. École St. Dominique was constructed across the street	
from the former Sherwood Exchange in 1936.	

### Supporting Details – Criterion 8

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

The 1912 article explains that 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 justifies the opening of the Sherwood Exchange, explaining 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 Sherwood Exchange was opened in 1919 to serve the populations of Ottawa's western suburbs and Hull. The establishment of this exchange reflected Ottawa's increased number of telephone subscribers due to the city's population growth and wealth.

The growth in population in the area in the early 20<sup>th</sup> century is memorialized through large institutional buildings such as the Plant Bath, constructed in 1924 as a public bath

for the working-class residents in the neighbourhood, and St. Luke's Anglican Church, constructed in 1922 to replace the older church building which had succumbed to fire in 1889. École St. Dominique, a francophone Catholic girls' school, was constructed across the street from the former Sherwood Exchange in 1936.



The Plant Bath. Source: Google Maps



St. Luke's Anglican Church. Source: Google Maps



École St. Dominique. Source: Google Maps

The former Sherwood Exchange was named after the old neighbourhood of Mount Sherwood which was located between Booth Street and Bronson Street.<sup>28</sup> Mount Sherwood was named after judge and politician Levius P. Sherwood, who took the land in a deal made with previous bankrupt landowner Robert Randall in 1820.<sup>29</sup> Mount Sherwood remained empty for decades, until Sherwood's son George started dividing lots to build homes in 1869, sparking a wave of development in the 1860s and 1870s by players in the lumber industry due to its proximity to the Chaudière Mill. The growth of this neighbourhood at the time is also exemplified by the construction of The Fleet Street Pumping Station in Lebreton Flats in 1875, which was the city's first pumping station. As the population grew, Mount Sherwood could not sustain itself as a village separate from Ottawa. In 1889, Mount Sherwood was annexed to the City of Ottawa.

<sup>&</sup>lt;sup>28</sup> Smythe, 2024; Stefko, 2023

<sup>&</sup>lt;sup>29</sup> Stefko, 2023

Criterion 9	
The property has contextual value because it is a landmark	No
Response to Criterion	
The property does not stand out in contrast to other buildings in the neighbourhood	
due to its modest style and massing and therefore is not considered a landn	nark.

### Sources

BCE. (n.d.). Explore our rich history. https://www.bce.ca/about-bce/history/timeline

- Harvard (n.d.). National Bell Telephone Company. http://waywiser.fas.harvard.edu/people/855/national-bell-telephone-company
- Hicken, L. (2024). Grover 1924. The Introduction of Dial Telephone Service In The City of Toronto. http://tbeths.com/pdf/telephone-service.pdf
- Hill, R. (n.d.). Biographical Dictionary of Architects in Canada 1800 1950. http://www.dictionaryofarchitectsincanada.org/#:~:text=This%20Dictionary%20we bsite%20lists%20every%20Canadian

John Blumenson, Ontario Architecture: A Guide to Styles and Building Terms 1784 to the present, (Canada: Fitzhenry & Whiteside, 1990), 166.

Ontario Heritage Trust. "Architectural Style: Edwardian Classicism," https://www.heritagetrust.on.ca/places-of-worship/places-of-worshipdatabase/architecture/architectural-style;

Plaque, 8 Main Street East, Hamilton, Ontario.

- Powell, J. (1892). An Electric Banquet. The Historical Society of Ottawa. https://www.historicalsocietyottawa.ca/publications/ottawa-stories/significanttechnological-changes-in-the-city/an-electric-banquet
- Sangster, J. (1978). The 1907 Bell Telephone Strike: Organizing Women Workers. Labour/Le Travailleur, 3, 109–130.
- Shannon Kyles, "Edwardian (1890-1916)," Ontario Architecture, accessed April 30, 2024, http://www.ontarioarchitecture.com/Edwardian.html;
- Shannon Ricketts, Leslie Maitland, and Jacqueline Hucker, *A Guide to Canadian Architectural Styles*, Second Edition, (Toronto: Broadview Press, 2004,) 123.
- Smythe, R. (2024). "Number, please": the many lives of the Sherwood Exchange on Eccles Street. Centretown Buzz. https://centretownbuzz.ca/2024/09/number-please-the-many-lives-of-the-sherwood-exchange-on-eccles-street/
- Stefko, S. (2023). The early history of the Glebe Annex. Glebe Report. https://glebereport.ca/articles/the-early-history-of-the-glebe-annex/

The Hamilton Spectator. (2016).

The Ottawa Citizen, (1939).

The Ottawa Citizen, (1975).

The Ottawa Journal, (1973).

- University of Waterloo Heritage Resources Centre. "Ontario Architectural Style Guide," last modified January 2009, https://www.therealtydeal.com/wpcontent/uploads/2018/06/Heritage-Resource-Centre-Achitectural-Styles-Guide.pdf, 18.
- Vlasveld, M. (2020). Remember This? Ottawa gets its first telephone. https://ottawa.citynews.ca/2020/11/09/remember-this-ottawa-gets-its-first-telephone-2862145/

#### 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 an dto provide for prospective development and increase during the next five years, it became necessary in addition to the outside plant, such as undergroud and aerial cable, to arrange for another exchange. The The Ottawa Citizen, 1919.

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, 1912.



Telephone Economy Talk No. 13. 1918.