

To: Economic and Development Services Committee

From: Warren Munro, HBA, RPP, Commissioner,
Economic and Development Services Department

Report Number: ED-22-205

Date of Report: November 23, 2022

Date of Meeting: November 28, 2022

Subject: Proposed Telecommunication Towers and Related Equipment,
633 Merritt Street, 970 Nelson Street and the CNR Corridor
North of the Northern Terminus of Drake Street, Fontur
International Inc. on behalf of Bell Mobility Inc.

Ward: Ward 5

File: SPA-2022-22, SPA-2022-24 and SPA-2022-29

1.0 Purpose

The purpose of this Report is to provide background information for the public meeting on three telecommunication towers proposed by Fontur International Inc. ("Fontur") on behalf of Bell Mobility Inc. ("Bell") at various locations.

Bell proposes to erect the following new telecommunication towers in Oshawa:

- a) A 22 metre (72.2 ft.) high meso flower telecommunication tower with related at-grade equipment and fencing at 633 Merritt Street;
- b) a 22 metre (72.2 ft.) high meso flower telecommunication tower with related at-grade equipment and fencing at 970 Nelson Street; and,
- c) 22 metre (72.2 ft.) high meso flower telecommunication tower with related at-grade equipment and fencing on the Canadian National Railway ("C.N.R.") corridor north of the northern terminus of Drake Street.

Bell proposes to lease the areas for the telecommunication towers and related equipment from the owners of the above noted properties each of whom have authorized the applications by executing the application form.

The public meeting is being held in accordance with Council's Telecommunications Policy.

A notice advertising the public meeting and an information package prepared by Fontur on behalf of Bell were mailed to all assessed property owners and tenants within 120 metres

(393.7 ft.) of the above noted properties based upon Council policy that the consultation area will be the greater of 120 metres or 4 times the height of the tower. In addition, the notice was posted on the City's website and communicated through its Corporate Twitter and Facebook social media accounts.

The notice regarding the public meeting provided an advisory that the meeting is open to the public and will take place in person in the Council Chamber at Oshawa City Hall. Members of the public wishing to address the Economic and Development Services Committee through electronic means rather than appear in-person to make a delegation were invited to register their intent to participate electronically by 4:30 p.m. on November 23, 2022.

In accordance with Council policy, Fontur will make a presentation at the public meeting on the proposals.

Attachment 1 is a map showing the location of 633 Merritt Street, the location of the proposed telecommunication tower within 633 Merritt Street and the existing zoning in the area.

Attachment 2 is a copy of the Site Selection and Justification Report submitted by Fontur on behalf of Bell for 633 Merritt Street.

Attachment 3 is a map showing the location of 970 Nelson Street, the location of the proposed telecommunication tower within 970 Nelson Street and the existing zoning in the area.

Attachment 4 is a copy of the Site Selection and Justification Report submitted by Fontur on behalf of Bell for 970 Nelson Street.

Attachment 5 is a map showing the location of the proposed telecommunication tower within the C.N.R. corridor to the north of the northern terminus of Drake Street and the existing zoning in the area.

Attachment 6 is a copy of the Site Selection and Justification Report submitted by Fontur on behalf of Bell for the C.N. rail corridor site.

Attachment 7 is a copy of the City's Telecommunication Policy as approved by Council.

2.0 Recommendation

That the Economic and Development Services Committee select an appropriate option as set out in Section 5.5 of Report ED-22-205 dated November 23, 2022.

3.0 Executive Summary

Not applicable.

4.0 Input from Other Sources

4.1 Other Departments and Agencies

No department or agency that provided comments on the telecommunication tower proposal has any objection.

The Airport Manager has no objections. However, an application to NAV CANADA is required to ensure that the proposed tower will not impact any current flight procedures and will be listed and identified in all aviation publications and maps.

5.0 Analysis

5.1 General

5.1.1 Oshawa Official Plan and Zoning Provisions for Telecommunication Facilities

Telecommunication facilities are permitted in any land use designation in the Oshawa Official Plan subject to any regulatory requirements. Telecommunication facilities are also permitted in any zone in Zoning By-law 60-94 under the Public Use section provided the proposal conforms to the Oshawa Official Plan.

5.1.2 Innovation, Science and Economic Development Canada

Innovation, Science and Economic Development Canada approves licences for radio and telecommunication companies to operate and ultimately authorizes and approves the locations of telecommunication antennas and towers.

A goal of Innovation, Science and Economic Development Canada is to find mutually acceptable locations for new antennas or towers. As such, it has defined roles for the City, the telecommunication company and Innovation, Science and Economic Development Canada.

For telecommunication tower proposals on **private** property the City has an opportunity to influence the location of new antennas and towers, not only from a land use compatibility perspective but from the community's perspective.

However, the City cannot prohibit the installation of a tower or an antenna on private property. It is Innovation, Science and Economic Development Canada's position that telecommunication facilities licensed by the authority of the Federal Government are not subject to municipal planning regulations such as the Oshawa Official Plan, Zoning By-law 60-94 or site plan control.

Telecommunication companies wishing to establish new towers or antennas must do the following:

- For certain proposed installations, telecommunication providers are required to consult with the City and follow any reasonable land use consultation process established by the City, including public consultation.

- Consult with Transport Canada where applicable to ensure antennas and tower structures comply with painting and lighting requirements for aeronautical safety.
- Ensure that telecommunications facilities operate in a manner that complies with Health Canada's limits of exposure to radio-frequency field emissions.
- If necessary, undertake an environmental assessment to comply with the Canadian Environmental Assessment Act.

Consultation between the City and telecommunication providers is intended to:

- (a) Discuss site options;
- (b) Ensure that local processes related to telecommunication systems are respected;
- (c) Address reasonable and relevant concerns; and,
- (d) Obtain City concurrence in writing.

A telecommunication provider is prohibited from starting the installation of a telecommunication system until any required consultation process with the City has been completed or Innovation, Science and Economic Development Canada confirms concurrence with the consultation process undertaken. Consultation responsibilities will normally be considered complete when a telecommunication provider has:

- (a) Concluded consultation requirements with the City;
- (b) Carried out public consultation through the process established by the City; and,
- (c) Addressed all reasonable and relevant concerns.

All consultation is to be completed within 120 days of a telecommunication provider's initial formal contact with the City. Where unavoidable delays are encountered, the City is expected to indicate to the telecommunication provider when a response can be expected to the proposal. If the City is not responsive, the telecommunication provider may contact Innovation, Science and Economic Development Canada. Depending on the individual circumstances, Innovation, Science and Economic Development Canada may support additional time or consider the City's consultation process complete.

In the event a telecommunication provider and the City cannot reach an agreement on the location of the telecommunication facility then Innovation, Science and Economic Development Canada can make a decision as to what is appropriate.

5.1.3 Council Policy for New Telecommunication Facilities

The City's policy for new telecommunication facilities was adopted by Council in June 2007 and amended in June 2008 and September 2014. A copy of the current Council policy forms Attachment 7 to this Report. The applicant has submitted a site plan application pursuant to the Council Policy.

5.2 633 Merritt Street

Bell is proposing to construct a 22 metre (72.2 ft.) high meso flower style telecommunication tower with related at-grade equipment and fencing generally located at

633 Merritt Street (see Attachment 1), approximately midway between the front and rear lot lines. The property is occupied by a legal non-conforming single detached dwelling.

To the north of 633 Merritt Street is Highway 401. To the east is a commercial property fronting onto Howard Street that is zoned PSC-A (Planned Strip Commercial) and owned by the same Owner as that of the 633 Merritt Street. To the west is Merritt Street, beyond which is a legal non-conforming single detached dwelling also zoned PSC-A (Planned Strip Commercial). To the south are several legal non-conforming single detached dwellings fronting onto Merritt Street as well as commercial properties fronting onto Bloor Street East, all of which are zoned PSC-A (Planned Strip Commercial).

Bell has advised that the proposed telecommunication facility is required to improve coverage for the surrounding area. The installation would also provide an opportunity to accommodate future technology services (i.e. 5G) as well as potential co-location with other licensed carriers, helping to reduce the number of future structures in the area. This principle is encouraged by both the City and Innovation, Science and Economic Development Canada.

Bell advises that it investigated the potential to use other sites including other service providers' sites in the area but was unable to find any that met its locational needs in this area.

In accordance with City Council policy, Bell has submitted a Site Selection Report including a site plan for the proposed telecommunication facility (see Attachment 2).

5.3 970 Nelson Street

Bell is proposing to construct a 22 metre (72.2 ft.) high meso flower style telecommunication tower with related at-grade equipment and fencing generally located in the northwest corner of 970 Nelson Street (see Attachment 3). The property is currently occupied by an automobile body shop.

To the north and west of 970 Nelson Street is the City of Oshawa's Consolidated Operations Depot. To the east of 970 Nelson Street is Nelson Street, beyond which are several industrial properties zoned GI (General Industrial). To the south is a multi-unit industrial mall containing uses such as an automobile repair garage, an automobile body shop and a custom furniture work shop.

Bell has advised that the proposed telecommunication facility is required to improve coverage for the surrounding area. The installation would also provide an opportunity to accommodate future technology services (i.e. 5G) as well as potential co-location with other licensed carriers, helping to reduce the number of future structures in the area. This principle is encouraged by both the City and Innovation, Science and Economic Development Canada.

Bell advises that it investigated the potential to use other sites including other service providers' sites in the area but was unable to find any that met its locational needs in this area.

In accordance with City Council policy, Bell has submitted a Site Selection Report including a site plan for the proposed telecommunication facility (see Attachment 4).

5.4 Canadian National Railway Corridor to the north of the Northern Terminus of Drake Street

Bell is proposing to construct a 22 metre (72.2 ft.) high meso flower style telecommunication tower with related at-grade equipment and fencing on the C.N.R. corridor lands adjacent to the northern terminus of Drake Street (see Attachment 5).

The C.N.R. corridor lands between Wilson Road South and Farewell Street are occupied by two railway lines and related railway equipment.

To the north of the proposed tower are railway tracks, beyond which are single detached dwellings fronting Veterans Road and City-owned parkland known as Veterans Tot Lot. To the east and west of the proposed tower location are C.N.R. corridor and several industrial properties zoned SI-A (Select Industrial). To the south of the proposed tower location is the Drake Street road allowance and additional SI-A zoned properties with light industrial uses.

Bell has advised that the proposed telecommunication facility is required to improve coverage for the surrounding area. The installation would also provide an opportunity to accommodate future technology services (i.e. 5G) as well as potential co-location with other licensed carriers, helping to reduce the number of future structures in the area. This principle is encouraged by both the City and Innovation, Science and Economic Development Canada.

Bell advises that it investigated the potential to use other sites including other service providers' sites in the area but was unable to find any that met its locational needs in this area.

In accordance with City Council policy, Bell has submitted a Site Selection Report including a site plan for the proposed telecommunication facility (see Attachment 6).

5.5 Options

At the conclusion of the public meeting, two options are available to the Economic and Development Services Committee to deal with the proposed telecommunication towers, related equipment and fencing.

5.5.1 Option 1: No Objection to the Telecommunication Tower and Related Equipment Proposals

At the conclusion of a public meeting, staff are normally directed to further review the proposal and prepare a report and recommendation to the Economic and Development Services Committee.

The Economic and Development Services Committee may wish to pass the following motion for City Council's consideration in the event no significant issues are raised at the public meeting:

"That, pursuant to Report ED-22-205 dated November 23, 2022, Economic and Development Services staff be authorized to advise Innovation, Science and Economic Development Canada that the City has no objection to the proposal by Fontur International Inc. on behalf of Bell Mobility Inc. to install telecommunication towers, related equipment and fencing at 633 Merritt Street, 970 Nelson Street and the Canadian National Railway corridor at the northern terminus of Drake Street, subject to Bell Mobility Inc. addressing such matters as siting and tower design to the satisfaction of the Commissioner of Economic and Development Services (Files: SPA-2022-22, SPA-2022-24 and SPA-2022-29)."

5.5.2 Option 2: Direct Staff to Further Review the Telecommunication Towers and Related Equipment Proposal and Prepare a Subsequent Report and Recommendation

In the event significant issues are raised by the public and/or the Economic and Development Services Committee at the public meeting, then staff should be directed to further review the telecommunication tower and equipment proposal and prepare a subsequent report and recommendation. In this case, the following motion should be passed by the Economic and Development Services Committee:

"That, pursuant to Report ED-22-205 dated November 23, 2022, staff be directed to further review and prepare a subsequent report and recommendation back to the Economic and Development Services Committee concerning the telecommunication towers, related equipment and fencing proposed by Fontur International Inc. on behalf of Bell Mobility Inc. at 633 Merritt Street, 970 Nelson Street and the Canadian National Railway corridor at the northern terminus of Drake Street (Files: SPA-2022-22, SPA-2022-24 and SPA-2022-29). This direction does not constitute or imply any form or degree of approval."

6.0 Financial Implications

There are no financial implications associated with the recommendation in this Report.

7.0 Relationship to the Oshawa Strategic Plan

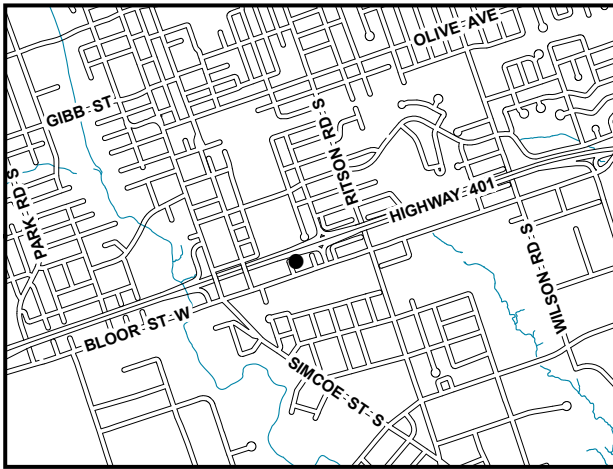
Holding a public meeting on proposed telecommunication tower applications advances the Accountable Leadership Goal of the Oshawa Strategic Plan.



Tom Goodeve, M.Sc.Pl., MCIP, RPP, Director,
Planning Services



Warren Munro, HBA, RPP, Commissioner,
Economic and Development Services Department



Item: ED-22-205
Attachment 1

Economic & Development Services

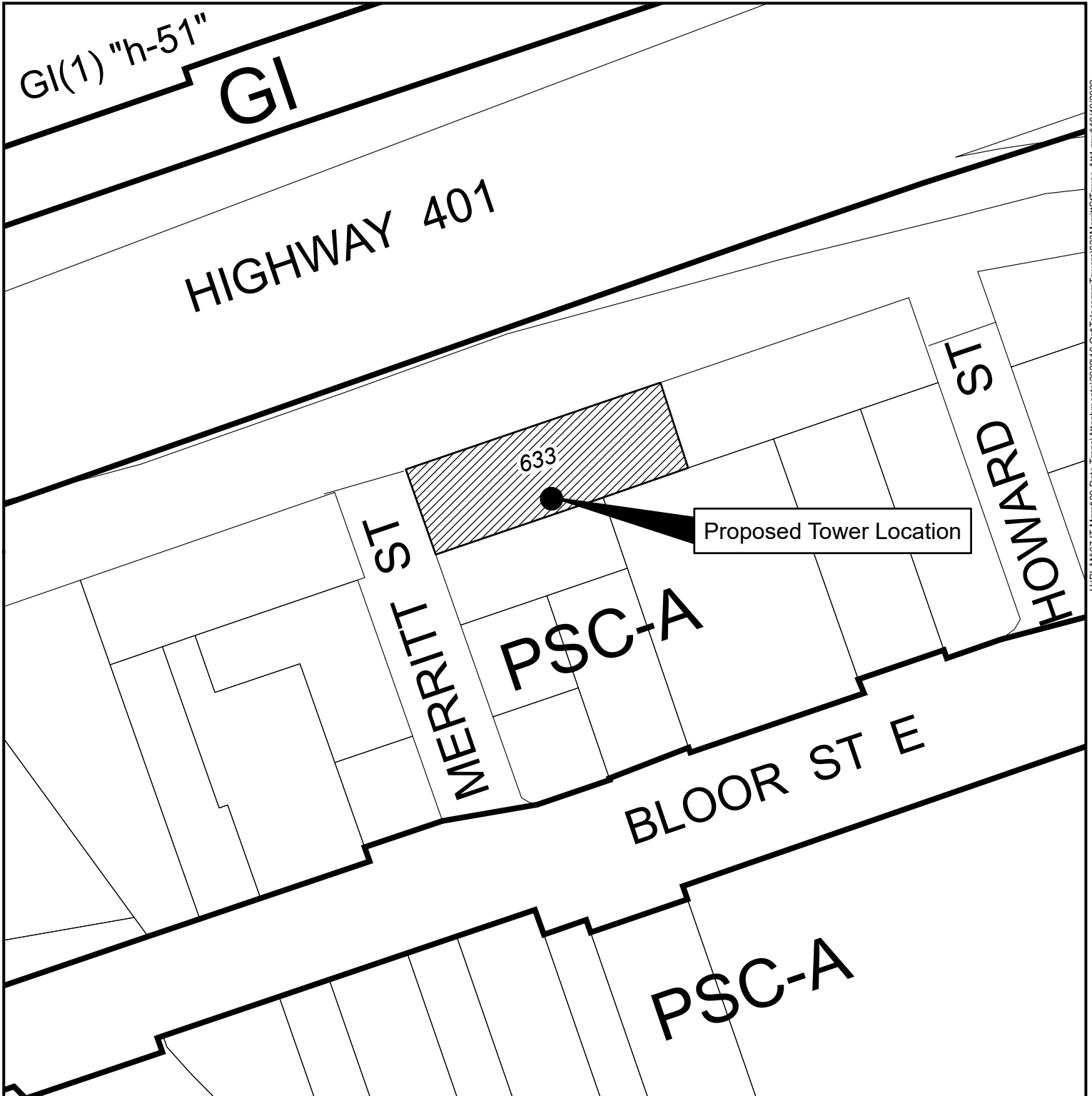
Subject: Proposed Telecommunication Towers and Related Equipment, 633 Merritt Street, 970 Nelson Street and the CNR Corridor North of the Northern Terminus of Drake Street, Fontur International Inc. on behalf of Bell Mobility Inc.

Ward: Ward 5

File: SPA-2022-22, SPA-2022-24 and SPA-2022-29



Subject Site





July 12, 2022

**Site Selection & Justification Report
Wireless Telecommunications Tower Site**

633 Merritt Street Oshawa, Ontario

Bell Mobility – contracted to:
FONTUR International

70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

Table of Contents

Introduction3

Purpose - Background & Coverage Requirement.....3

Identification & Evaluation of Different Site Location Options8

Proposed Site Location9

Description of Proposed System..... 10

Statement Indicating Need for Tower Height..... 11

Health Canada’s Safety Code 6 Compliance 11

Canadian Environmental Assessment Act and Conservation Authority 11

Transport Canada’s Aeronautical Obstruction Marking Requirements 11

Engineering Practices 11

Distance to Residential 12

Justification of Preferred Tower Type..... 12

Public Consultation 12

Impact on Sensitive Land Uses.....13

Conclusion 13



Introduction

The on-going increase in the use of personal cellular telephones and other wireless devices for personal, business, and emergency purposes requires the development of new wireless telecommunications infrastructure. This infrastructure includes new antennas and their support structures which are required to meet the demands of increased capacity and broadening service areas. Without antennas in close proximity to a wireless device, wireless communication is simply not possible.

The use of wireless telecommunications is firmly entrenched into Canadian society and economy. Canadians currently use more than 30 million wireless devices on a daily basis including, wireless phones, tablets, mobile radios, and broadband internet devices. Three-quarters of every Canadian household have access to a wireless phone, and more than half of all phone connections are wireless. About one-third of households now use cellphones exclusively (i.e. no landline). More importantly, each year Canadians place more than 6 million calls to 9-1-1 or other emergency numbers from their mobile phones and many major urban centres report that over half of all emergency calls are made by cell phone.

As part of its on-going commitment to provide high quality wireless services, Bell Mobility has determined that a new wireless telecommunications facility is required in the City of Oshawa.

As a general matter, Bell's site selection process is a balanced exercise that must meet Bell's network coverage objectives, having regard for land use constraints and its obligation to its customers to provide a high quality of service.

Wireless telecommunications facilities are regulated by the Federal Government under Innovation, Science and Economic Development Canada and need not follow municipal or provincial planning approvals. However, in recognition of the policy vacuum which exists as a result of that circumstance, Industry Canada requires that wireless telecommunication carriers consult with land use authorities.

Purpose - Background & Coverage Requirement

A radio antenna and a tower are the two most important parts of a radio communication system. The antenna is needed to send and receive signals for the radio station. The tower raises the antenna above obstructions such as trees and buildings so that it can send and receive these signals clearly. Each radio station and its antenna system (including the tower) provide radio coverage to a specific geographic area, often called a cell. The antenna system must be carefully located to ensure that it provides a good signal over the whole cell area, without interfering with other stations and can "carry" a call as the user moves from cell to cell.

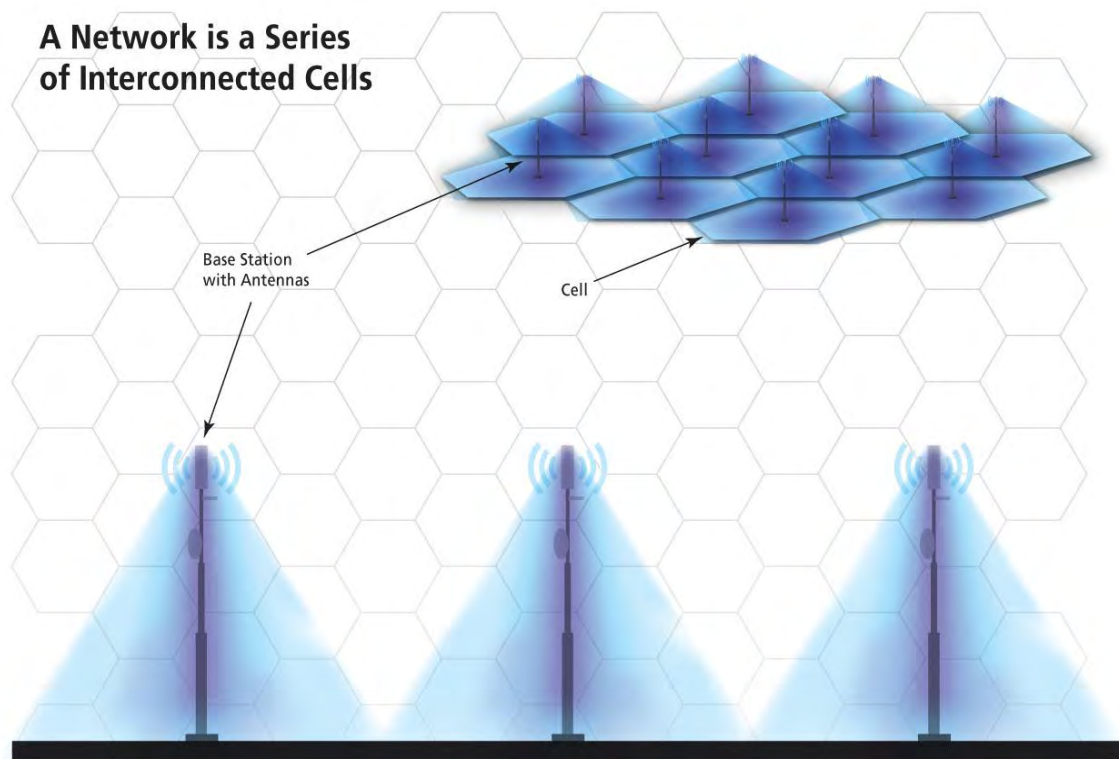


Figure 1

If the station is part of a radio telephone network, the number of stations needed also depends on how many people are using the network. If the number of stations is too small, or the number of users increases people may not be able to connect to the network, or the quality of service may decrease.

As the number of users exceeds the capacity of the radio station to receive and send calls, the coverage area for the cell shrinks and the shrinkage between cells creates coverage holes.

As demand increases for mobile phones and new telecommunication services, additional towers are required to maintain or improve the quality of service to the public and restore contiguous wireless service.

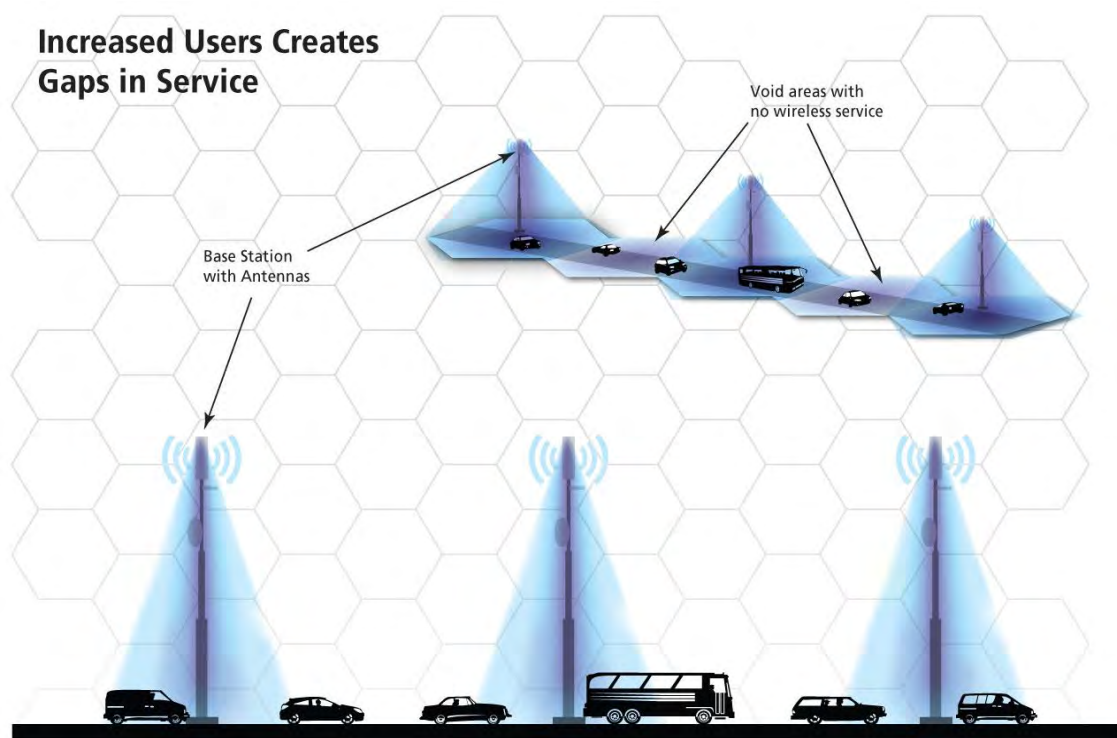


Figure 2

In this case, Bell Mobility's Radio Frequency Engineering department has determined the need for a service upgrade to adequately provide continuous coverage and service to our existing and future customer base surrounding this area of Oshawa. Currently, our network is burdened by a combination of poor voice and data quality, specifically in high-use residential areas and transportation corridors. In some cases, the coverage is so poor that a handset would be unable to place a mobile call at all in the subject location and surrounding area. The result of this situation is on-going customer complaints, high "dropped call" rates, and in extreme circumstances, the potential inability to place a mobile call that may be absolutely critical in an emergency situation.

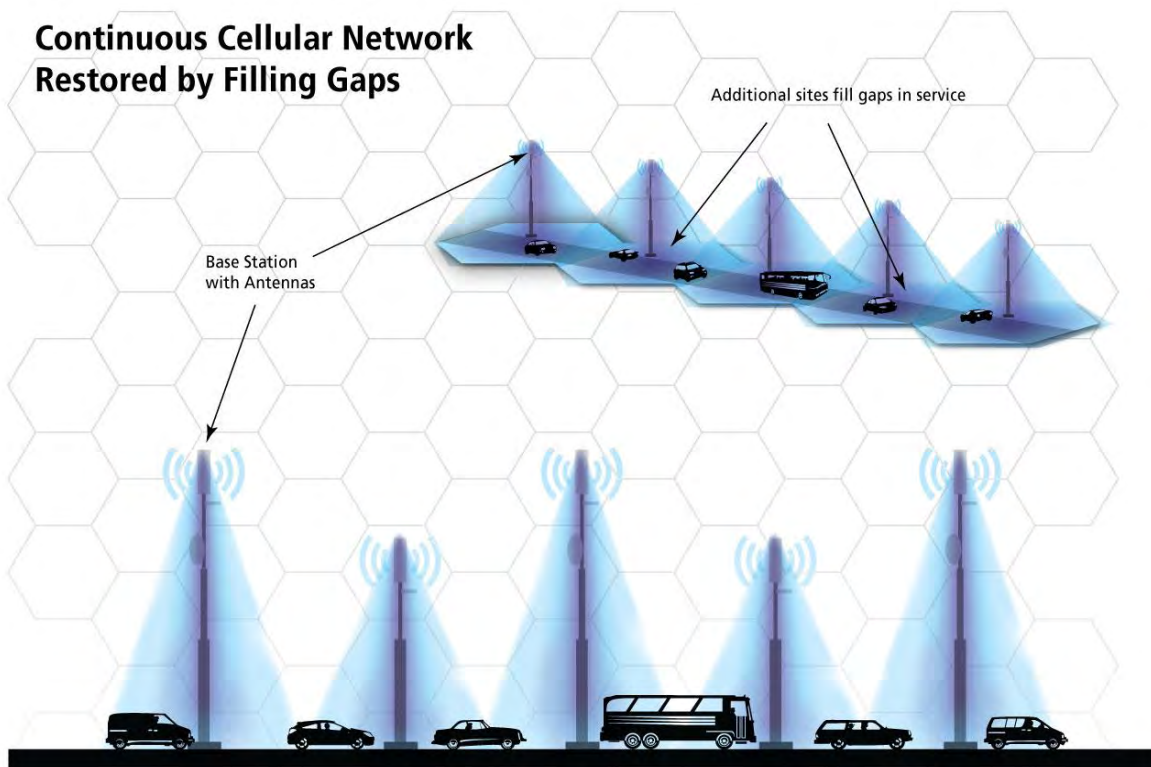


Figure 3

Bell Mobility is committed and mandated by its license to ensure the best coverage and service to the public and private sectors. The proposed site in the City of Oshawa is extremely important in terms of providing coverage to an area that is under-serviced. Bell Mobility wants to provide infrastructure necessary to ensure that both residents and visitors to the area have access to service.

A drive test was conducted along area roads such as Bloor Street East and Ritson Road South, and smaller residential streets in this area (i.e., Fourth Avenue or Albert Street), for the purpose of determining our coverage objectives. Very weak coverage areas with poor signal strength were found around and along these stretches of road, which generate significant coverage requirements as a result of the number of users and the varying topography. Bell Mobility is also anticipating significant growth in the amount of wireless broadband use in this area as a result of the general increase in wireless services use and local population increase.

Bell Mobility's existing coverage in this part of the City of Oshawa is in need of upgrading. Like all other infrastructure, it must keep up with changes in the ways people use technology, as well as general population growth of the area. As illustrated in the map below (**Figure 4**), there is a gap in wireless

telecommunications infrastructure in the area of coverage need. The following sites are within 1 km of our search area, and are shown in Figure 4:

- **18m Freedom Antenna** located at 470 Albert Street, Oshawa, approximately 580m from the tower location. Due to the low height available and type of structure co-location is not possible. Carriers require a 3 metre separation distance between antennas which would not allow Bell Mobility to meet their coverage objectives as a height of 22m is required.
- **32m Bell Shrouded Tri-pole tower** located at 316 Kitchener Avenue, Oshawa. Due to the distance from the search area (810m) co-locating on this tower would not fix the gap in coverage experienced near Bloor Street East and Ritson Road South.
- **35m Rogers Monopole Tower** located at 417 Oshawa Boulevard South, Oshawa. Due to the distance from the search area (900 m) and low height available, this structure is also not sufficient to co-locate. This tower's main purpose is to serve the semi-urban communities near Bloor Street East and Ritson Road, and its coverage does not extend outside.
- **18m Telus Tower** located at 901 Simcoe Street South, Oshawa. The distance from this installation (750m) is too great to provide coverage to the target area. In addition, the low height available on this tower makes co-location not possible.

Figure 4 – Current Telecommunications Infrastructure in Oshawa



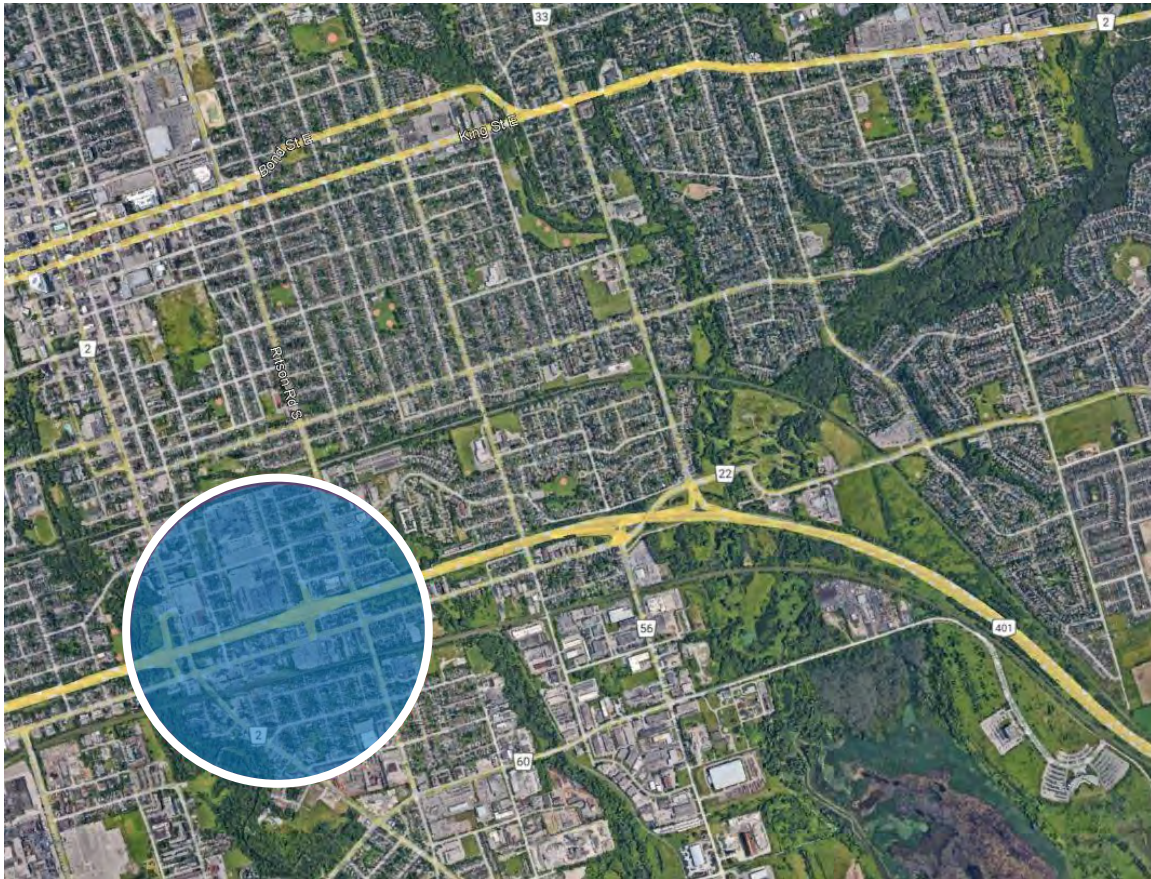
New equipment is therefore required in this area, to accommodate growing demand for wireless services, to mitigate existing coverage and capacity issues, and to effectively pass on calls to other towers in the network.

Identification & Evaluation of Different Site Location Options

Based on research by Bell's Radio Frequency Engineering team, a general search area location was chosen centered on the intersection of Bloor Street East and Ritson Road South. A site within the search area on the map below (**Figure 5**) would, from an engineering point of view, meet the coverage objectives of Bell's network. Typically, in semi-urban areas, the search area can have a radius of between 500-700 metres.

A review of existing telecommunications installations within the search area, as illustrated in **Figure 4**, revealed that there are no existing towers that would meet Bell Mobility's coverage requirements (i.e. within the search area).

Figure 5 – Search area



The search area consists of predominantly residential, environmental, and other sensitive land uses, which had a significant effect on the number and quality of site candidates.

After visiting the search area and reviewing the City of Oshawa's *Council Policy for New Telecommunication Facilities*, we identified a number of potential sites that would meet engineering requirements, as well as the standards outlined in

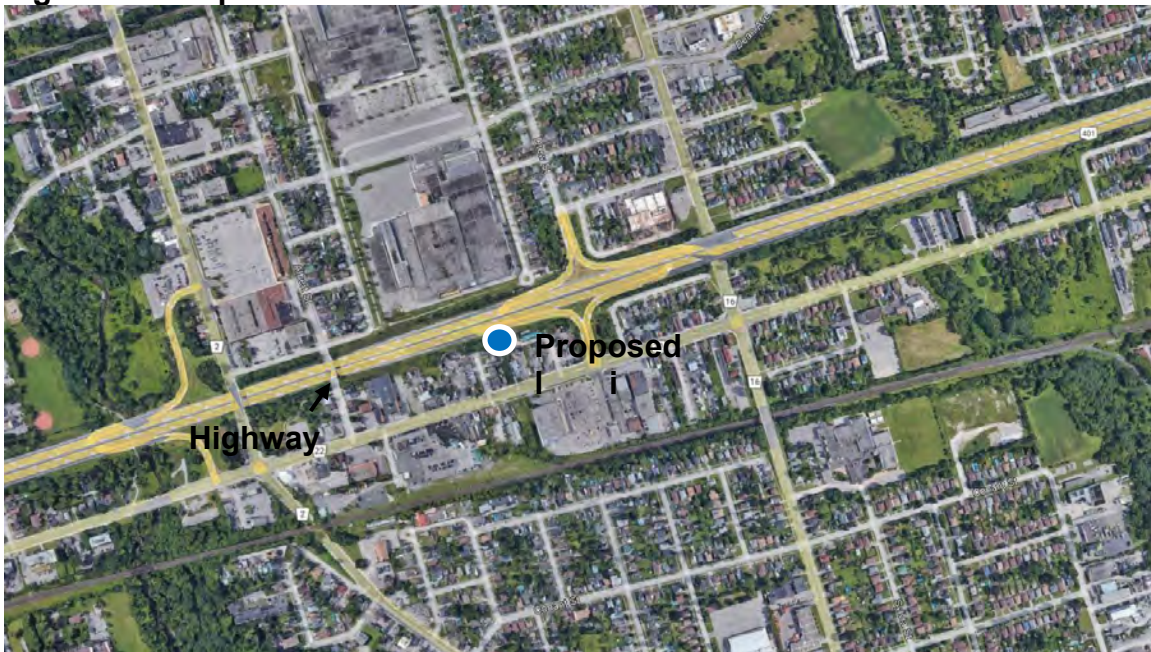
Industry Canada's CPC 2-0-03 document. We proceeded to meet with several land owners in the area to discuss potential locations.

Proposed Site Location

The location which Bell proposes for a wireless telecommunications site in the City of Oshawa is on the property municipally known as 633 Merritt Street Oshawa, Ontario L1H 4W3 (**Figure 6**).

The property's legal description is: LT 29 PL 159 CITY OF OSHAWA

Figure 6 – Proposed location



The site itself is located approximately 60 metres North of Bloor Street East.

The geographic coordinates for the site are as follows;

Latitude (NAD 83) N 43 52' 55.7"

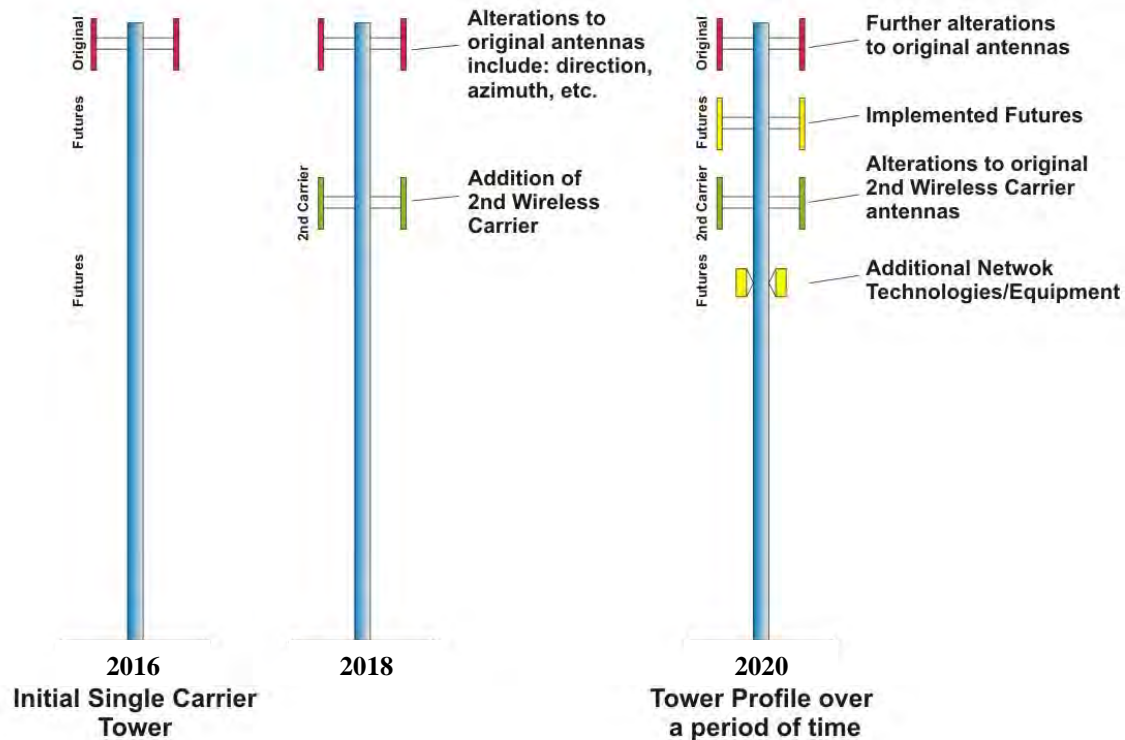
Longitude (NAD 83) W 78 51' 03.4"

Bell Mobility's proposed tower will accommodate wireless antennas for the purpose of providing wireless communications coverage and network capacity. To the end user, this translates into Bell's suite of wireless technologies such as cellular phone or wireless internet coverage. Depending on the signal strength, and the amount of data being downloaded, the regular user should not see a difference between this and a fibre line.

Bell strongly supports co-location on existing towers and structures and designed the tower to accommodate future carriers on the tower. The use of existing structures minimizes the number of new towers required in a given area and is

generally a more cost effective way of doing business. However, tower infrastructure is a finite resource and over time most towers reach their engineered maximum. This normally results when more than two carriers occupy the same tower as illustrated in **Figure 7**. The proposed tower is designed to support and accommodate additional carriers.

Figure 7



Towers are limited in terms of both allowable space and engineering capacity. Each antenna array requires a separation of vertical space so they do not cause interference with each other.

Unfortunately, there are no pre-existing towers that would work for co-location and given the low average height of structures in the search area, a rooftop antenna installation is also not viable.

Description of Proposed System

The proposed system for 633 Merritt Street is a steel, Meso Flower telecommunications tower that is 22 metres in height. A fenced-in compound would also be constructed, and would occupy a ground compound area of approximately 22 square metres.

Bell Mobility proposes to install antenna and microwave equipment. The tower would initially provide wireless voice and data services for subscribers to the Bell Mobility network.

Statement Indicating Need for Tower Height

The proposed tower has been designed at a height of 22 metres. Due to the large coverage hole that currently exists in Bell Mobility's network in this part of Oshawa, this height is required to provide optimal coverage to the area for voice and, importantly, data use, and to "pass on" calls and other uses effectively to surrounding towers in the network. The height will also allow other carriers to use the tower for their own equipment.

Health Canada's Safety Code 6 Compliance

Bell Mobility attests that the radio antenna system described in this report will comply with Health Canada's Safety Code 6 limits, as may be amended from time to time, for the protection of the general public including any combined effects of additional carrier collocations and nearby installations within the local radio environment.

***Canadian Environmental Assessment Act* and Conservation Authority**

Bell Mobility attests that the radio antenna system described in this notification package is not subject to the *Canadian Environmental Assessment Act, 2012*; therefore this facility is exempt from assessment.

Bell Mobility has also made every effort to design the tower and access in compliance with the Central Lake Ontario Conservation Authority's (CLOCA) regulations.

Transport Canada's Aeronautical Obstruction Marking Requirements

Bell Mobility attests that the radio antenna system described in this notification package will comply with Transport Canada / NAV Canada aeronautical safety requirements. Bell Mobility has made all necessary applications to Transport Canada and NAV Canada.

At the time of writing, neither Transport nor NAV Canada has completed their review of the proposed structure. However, given that the structure is not in close proximity to any aerodrome, we anticipate that lighting and/or painting of the structure will not be required.

Engineering Practices

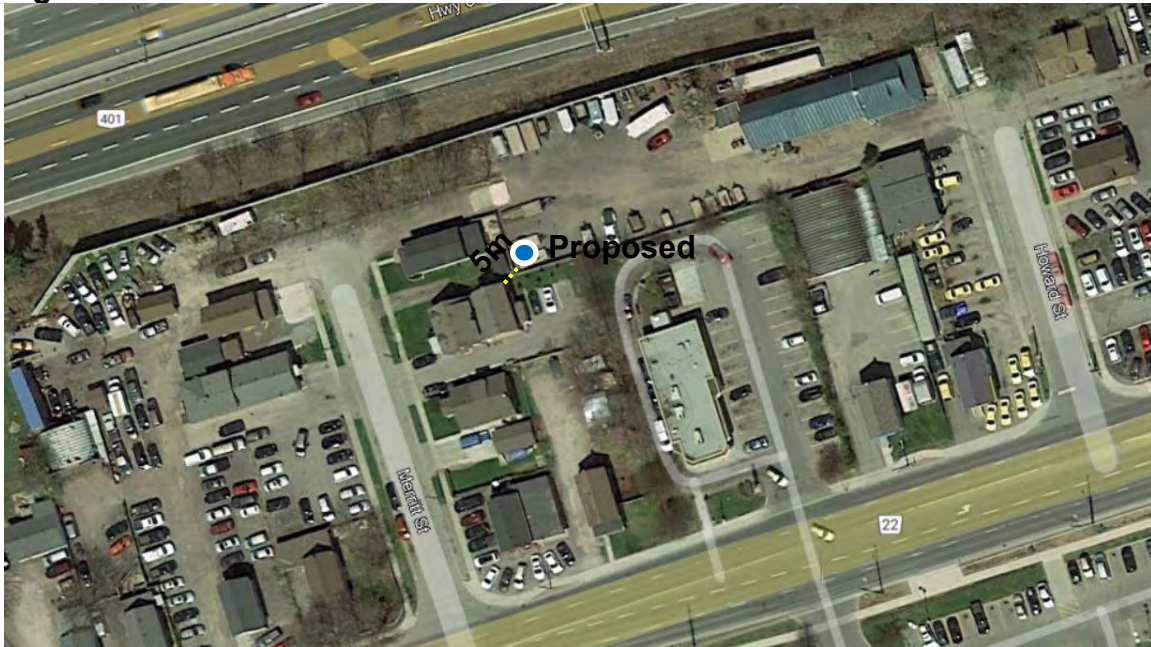
Bell Mobility attests that the radio antenna system described in this notification package will be constructed in compliance with the National Building Code of

Canada, specifically CSA S37-18 or modifications thereof and comply with good engineering practices including structural adequacy.

Distance to Residential

The nearest horizontal residential use outside of the subject property is approximately 5 metres west of the proposed site, on Merritt Street, as illustrated in Figure 8.

Figure 8 – Distance to nearest residential



Justification of Preferred Tower Type

Due to the dearth of existing telecommunication facilities in the area, and the demand for improved wireless services, there is a great need for new wireless signal in the search area. As a result, Bell Mobility has designed a steel meso flower. This tower allows for potential co-location while simultaneously resulting in an aesthetically-pleasing design. This design, in addition to the proposed height of the tower (22m) should allow The City of Oshawa to minimize the amount of towers required in semi-urban area in the future.

Public Consultation

In accordance with Industry Canada's CPC 2-0-03 guidelines and Section 4.3 of Oshawa's *Council Policy for New Telecommunication Facilities*, Bell Mobility will conduct a public circulation at the appropriate time in the evaluation process.

Impact on Sensitive Land Uses/Features

This installation will not affect any sensitive land uses, natural heritage, significant vegetation, or agricultural uses.

Conclusion

Canadians as a whole are becoming more dependent on wireless products for personal, business, and emergency purposes. In many areas of the country, more than half of all 9-1-1 calls are now made via a mobile phone. To that end, an improvement upon the current wireless coverage in this area of the City of Oshawa would be a benefit to the community.

Bell Mobility believes the proposal:

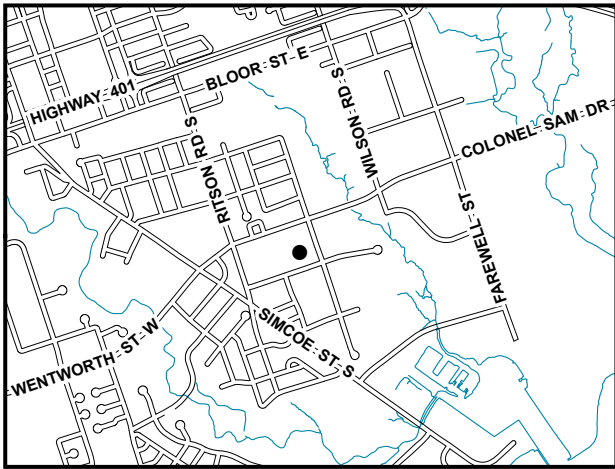
- Is in a location technically suitable to meet Bell Mobility's network requirements;
- Is a design that will accommodate additional providers in the future, if needed;
- Is a development compatible and appropriate with surrounding uses, and will have limited impact on existing land uses in the vicinity.

Bell Mobility is committed to effective public and municipal consultation. Should you have any questions or require further information regarding our proposal, please do not hesitate to contact the undersigned.

Sincerely,



Lucas Cuff, Planner
Consultant for Bell Mobility



Item: ED-22-205
Attachment 3

Economic & Development Services

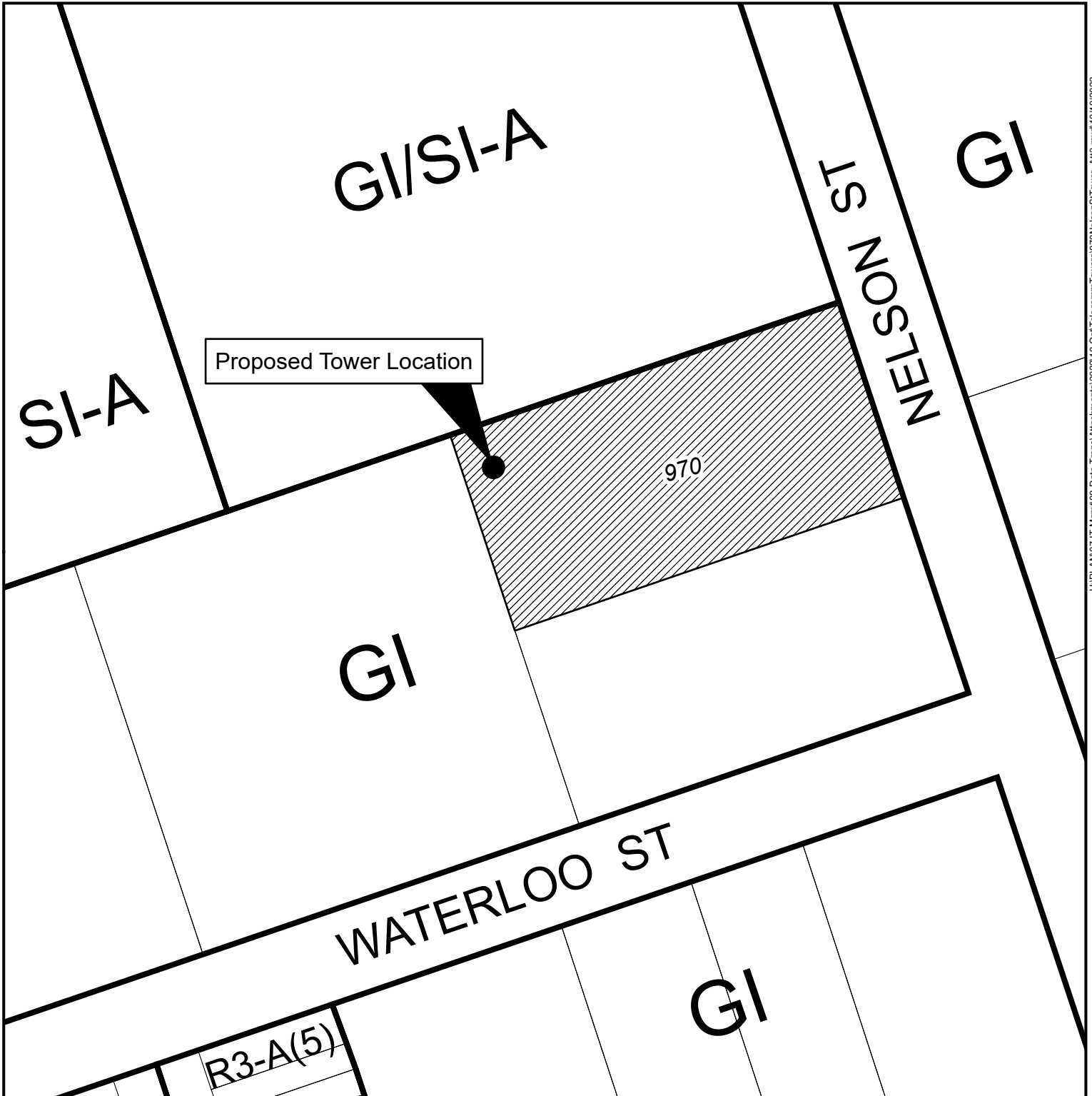
Subject: Proposed Telecommunication Towers and Related Equipment, 633 Merritt Street, 970 Nelson Street and the CNR Corridor North of the Northern Terminus of Drake Street, Fontur International Inc. on behalf of Bell Mobility Inc.

Ward: Ward 5

File: SPA-2022-22, SPA-2022-24 and SPA-2022-29



Subject Site 





August 30, 2022

Site Selection & Justification Report

Wireless Telecommunications Tower Site

970 Nelson Street, Oshawa, Ontario

Bell Mobility – contracted to:
FONTUR International
70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

Table of Contents

Introduction	3
Purpose - Background & Coverage Requirement.....	3
Identification & Evaluation of Different Site Location Options	7
Proposed Site Location	8
Description of Proposed System.....	10
Statement Indicating Need for Tower Height.....	10
Health Canada's Safety Code 6 Compliance	11
Control of Public Access	11
<i>Canadian Environmental Assessment Act</i> and Conservation Authority	11
Transport Canada's Aeronautical Obstruction Marking Requirements	11
Engineering Practices	11
Distance to Residential	12
Justification of Preferred Tower Type.....	13
Public Consultation	13
Conclusion	14

Introduction

The on-going increase in the use of personal cellular telephones and other wireless devices for personal, business, and emergency purposes requires the development of new wireless telecommunications infrastructure. This infrastructure includes new antennas and their support structures which are required to meet the demands of increased capacity and broadening service areas. Without antennas in close proximity to a wireless device, wireless communication is simply not possible.

The use of wireless telecommunications is firmly entrenched into Canadian society and economy. Canadians currently use more than 30 million wireless devices on a daily basis including, wireless phones, tablets, mobile radios, and broadband internet devices. Three-quarters of every Canadian household have access to a wireless phone, and more than half of all phone connections are wireless. About one-third of households now use cellphones exclusively (i.e. no landline). More importantly, each year Canadians place more than 6 million calls to 9-1-1 or other emergency numbers from their mobile phones and many major urban centres report that over half of all emergency calls are made by cell phone.

As part of its on-going commitment to provide high quality wireless services, Bell Mobility has determined that a new wireless telecommunications facility is required in the City of Oshawa.

As a general matter, Bell's site selection process is a balanced exercise that must meet Bell's network coverage objectives, having regard for land use constraints and its obligation to its customers to provide a high quality of service.

Wireless telecommunications facilities are regulated by the Federal Government under Innovation, Science and Economic Development Canada and need not follow municipal or provincial planning approvals. However, in recognition of the policy vacuum which exists as a result of that circumstance, Industry Canada requires that wireless telecommunication carriers consult with land use authorities.

Purpose - Background & Coverage Requirement

A radio antenna and a tower are the two most important parts of a radio communication system. The antenna is needed to send and receive signals for the radio station. The tower raises the antenna above obstructions such as trees and buildings so that it can send and receive these signals clearly. Each radio station and its antenna system (including the tower) provide radio coverage to a specific geographic area, often called a cell. The antenna system must be carefully located to ensure that it provides a good signal over the whole cell area, without interfering with other stations and can "carry" a call as the user moves from cell to cell.

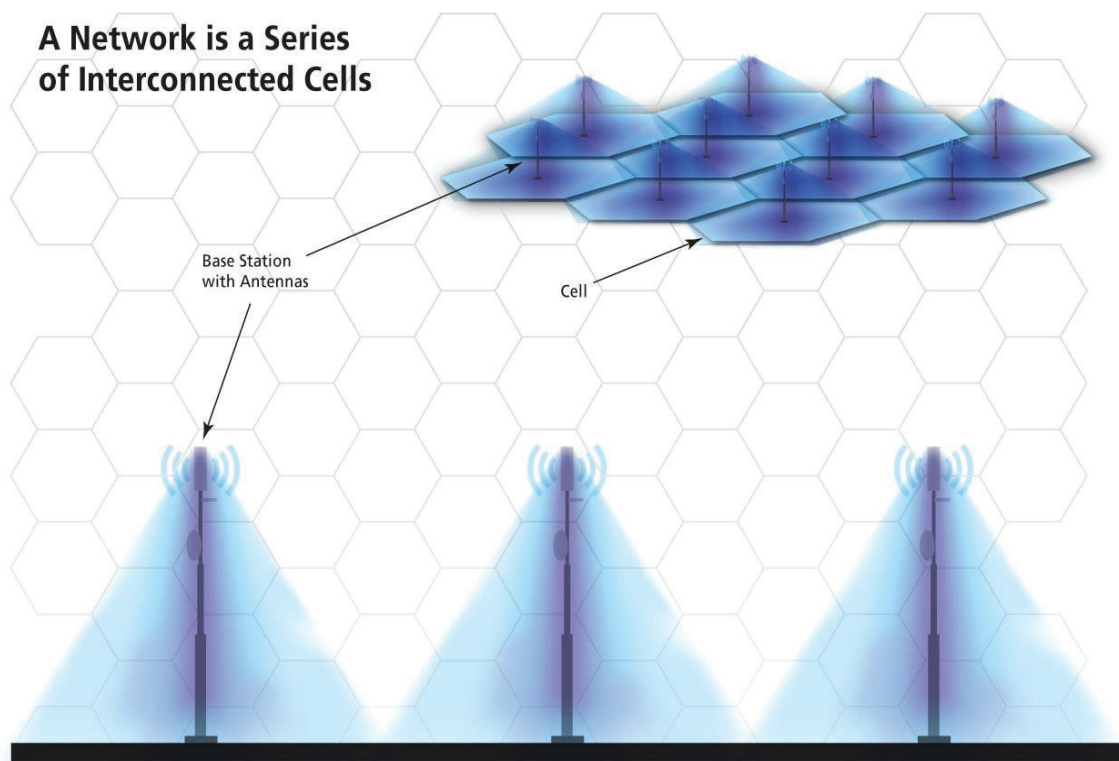


Figure 1

If the station is part of a radio telephone network, the number of stations needed also depends on how many people are using the network. If the number of stations is too small, or the number of users increases people may not be able to connect to the network, or the quality of service may decrease.

As the number of users exceeds the capacity of the radio station to receive and send calls, the coverage area for the cell shrinks and the shrinkage between cells creates coverage holes.

As demand increases for mobile phones and new telecommunication services, additional towers are required to maintain or improve the quality of service to the public and restore contiguous wireless service.

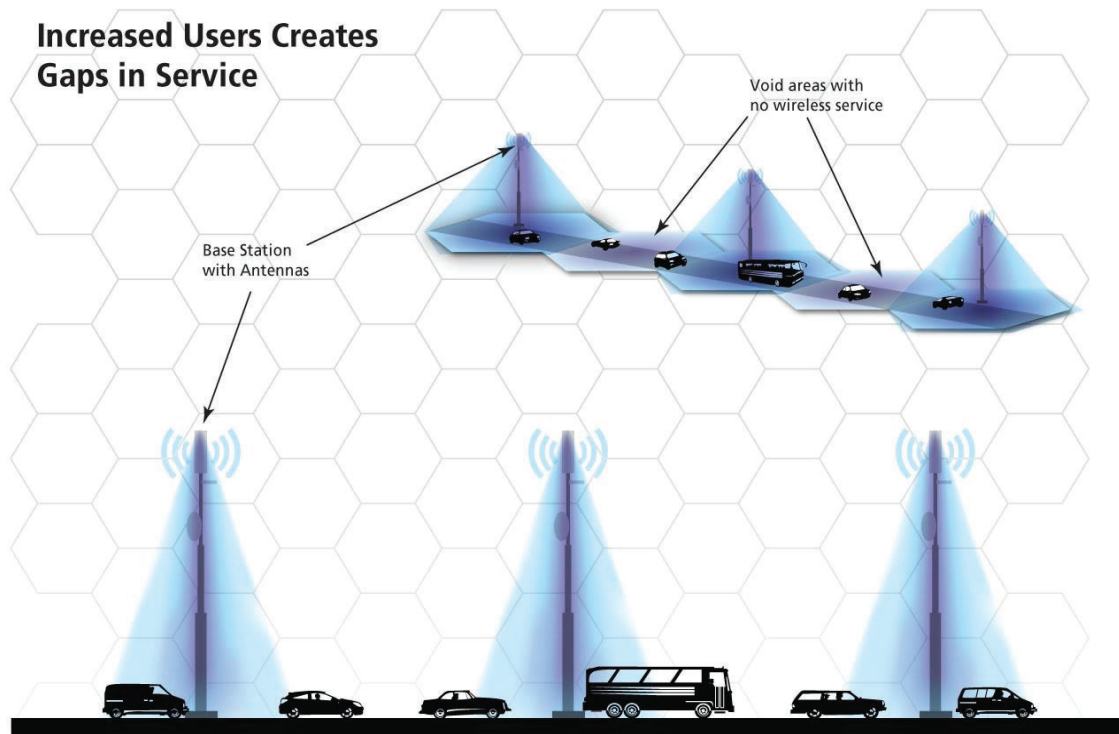


Figure 2

In this case, Bell Mobility's Radio Frequency Engineering department has determined the need for a service upgrade to adequately provide continuous coverage and service to our existing and future customer base surrounding this industrial and adjacent residential areas within Oshawa. Currently, our network is burdened by a combination of poor voice and data quality, specifically in high-use residential areas and transportation corridors. In some cases, the coverage is so poor that a handset would be unable to place a mobile call at all in the subject location and surrounding area. The result of this situation is on-going customer complaints, high "dropped call" rates, and in extreme circumstances, the potential inability to place a mobile call that may be absolutely critical in an emergency situation.

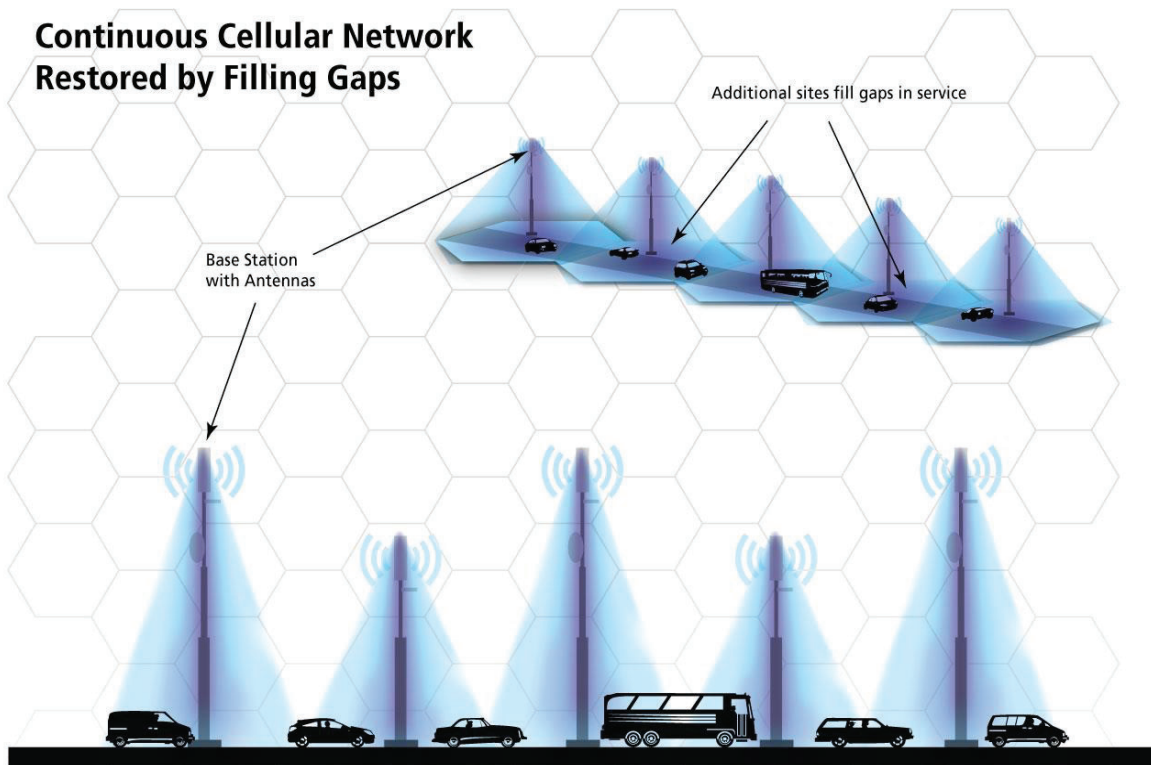


Figure 3

Bell Mobility is committed and mandated by its license to ensure the best coverage and service to the public and private sectors. The proposed site in the City of Oshawa is extremely important in terms of providing coverage to an area that is under-served. Bell Mobility wants to provide infrastructure necessary to ensure that both residents and visitors to the area have access to service.

A drive test was conducted along area roads such as Ritson Road S and Wentworth Street E and smaller residential streets in this area, for the purpose of determining our coverage objectives. Very weak coverage areas with poor signal strength were found around and along these stretches of road, which generate significant coverage requirements as a result of the number of users and the varying topography. Bell Mobility is also anticipating significant growth in the amount of wireless broadband use in this area as a result of the general increase in wireless services use.

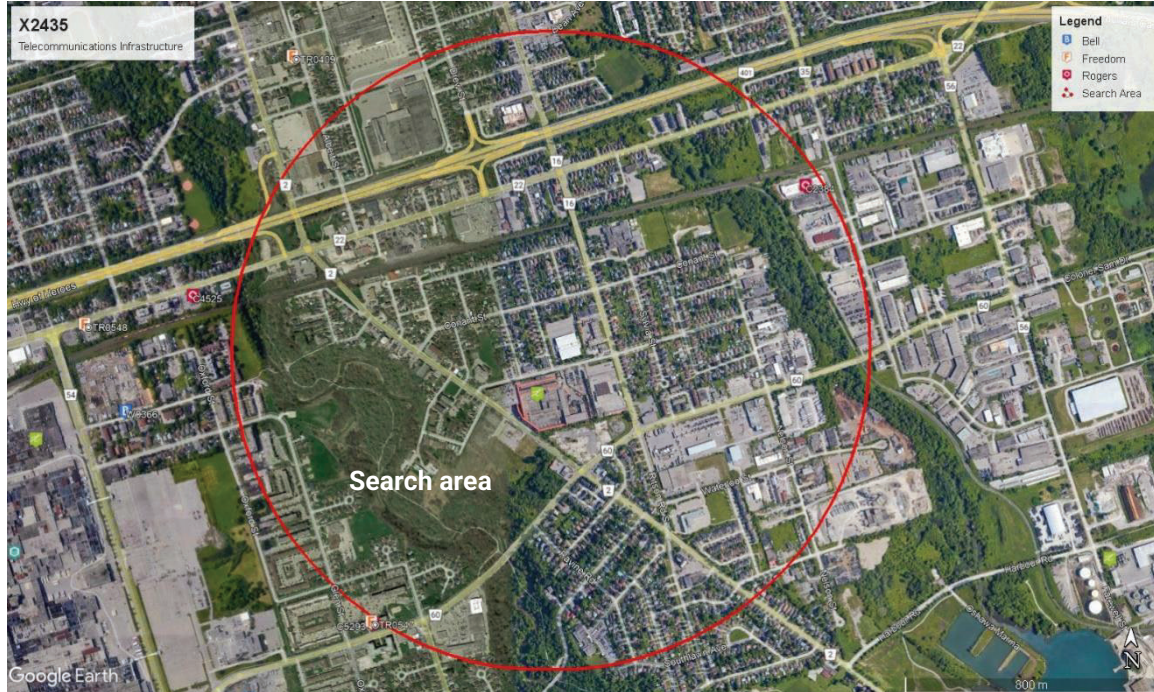
Bell Mobility's existing coverage in this part of Oshawa is in need of upgrading. Like all other infrastructure, it must keep up with changes in the ways people use technology, as well as general population growth of the area. As illustrated in the map below (**Figure 4**), there is a gap in wireless telecommunications infrastructure in the area of coverage need. The following sites are within 1 km of our search area, and are shown in Figure 4:

- **Telus Antenna** located at 901 Simcoe Street S, approximately 680m from the antenna location. Due to the low height of the building and distance from target

area's, co-location will not be possible as their coverage objectives will only be met with the development of this tower.

- **48m Rogers tower** located at 712 Wilson Road S, approximately 800m away from the proposed tower. Due to the distance from the target area (1.1km) co-locating on this tower would not fix the gap in coverage experienced near Ritson Road S and Wentworth Street E.

Figure 4 – Current Telecommunications Infrastructure in Oshawa



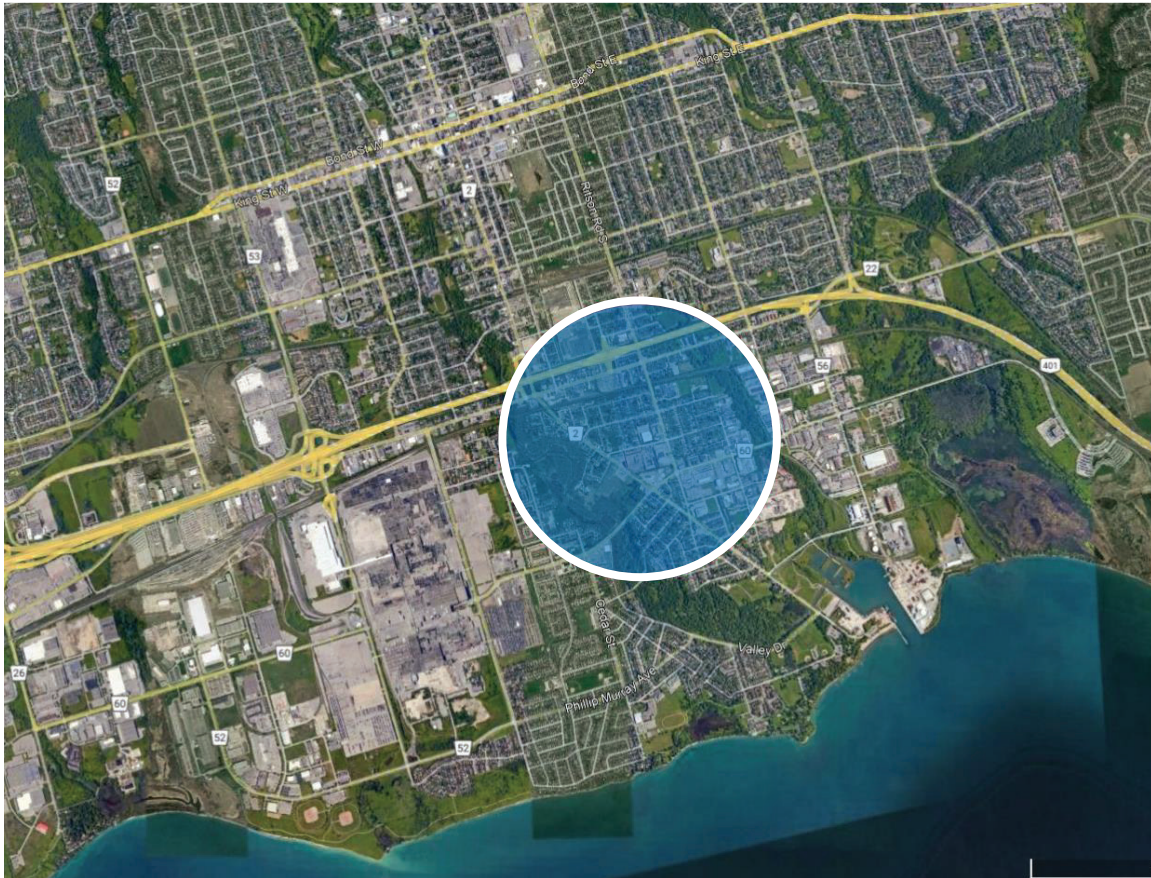
New equipment is therefore required in this area, to accommodate growing demand for wireless services, to mitigate existing coverage and capacity issues, and to effectively pass on calls to other towers in the network.

Identification & Evaluation of Different Site Location Options

Based on research by Bell's Radio Frequency Engineering team, a general search area location was chosen centered on the intersection of Ritson Road S and Wentworth Street E. A site within the search area on the map below (**Figure 5**) would, from an engineering point of view, meet the coverage objectives of Bell's network. Typically, in semi-urban areas, the search area can have a radius of between 500 and 700 metres.

A review of existing telecommunications installations within the search area, as illustrated in **Figure 4**, revealed that there are no existing towers that would meet Bell Mobility's coverage requirements (i.e. within the search area).

Figure 5 – Search area



The search area consists of predominantly residential, environmental, and other sensitive land uses, which had a significant effect on the number and quality of site candidates.

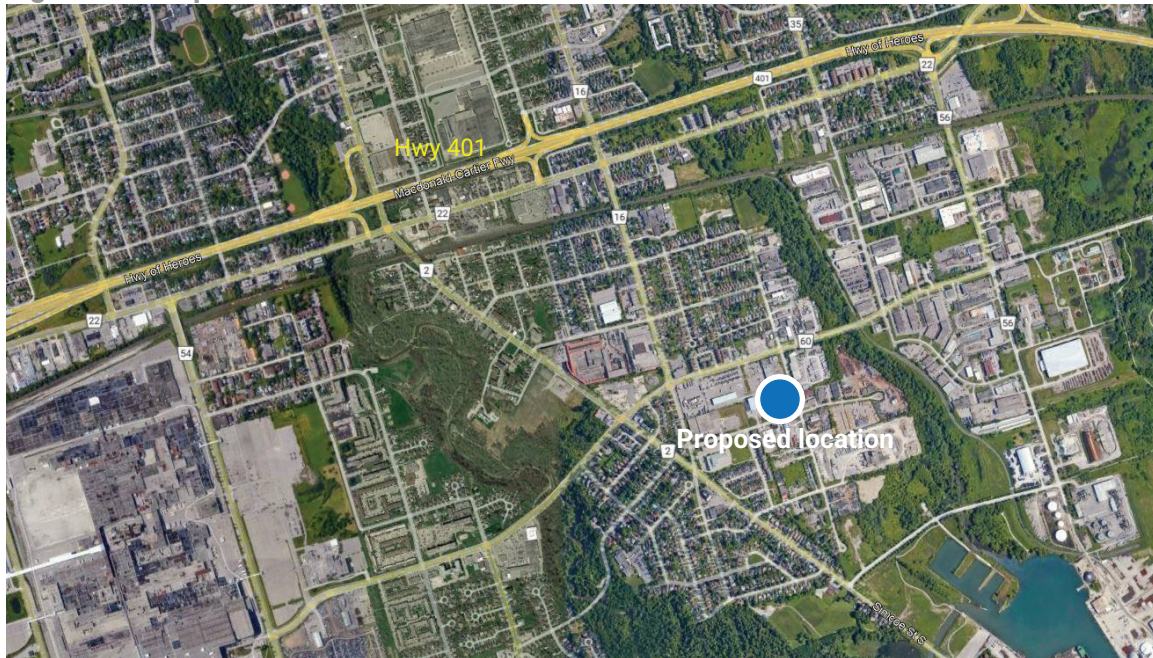
After visiting the search area and reviewing the City of Oshawa's Council Policy for New Telecommunication Facilities, we identified a number of potential sites that would meet engineering requirements, as well as the standards outlined in Industry Canada's CPC 2-0-03 document. We proceeded to meet with several land owners in the area to discuss potential locations.

Proposed Site Location

The location which Bell proposes for a wireless telecommunications site in the City of Oshawa is on the property municipally known as 970 Nelson Road, Oshawa, Ontario L1H 8L6 (**Figure 6**).

The property's legal description is: PT LT C10 SHEET 26 PL 335 OSHAWA PT 1, 40R3554; OSHAWA

Figure 6 – Proposed location



The site itself is located approximately 140 metres south of Wentworth Street E.

The geographic coordinates for the site are as follows;

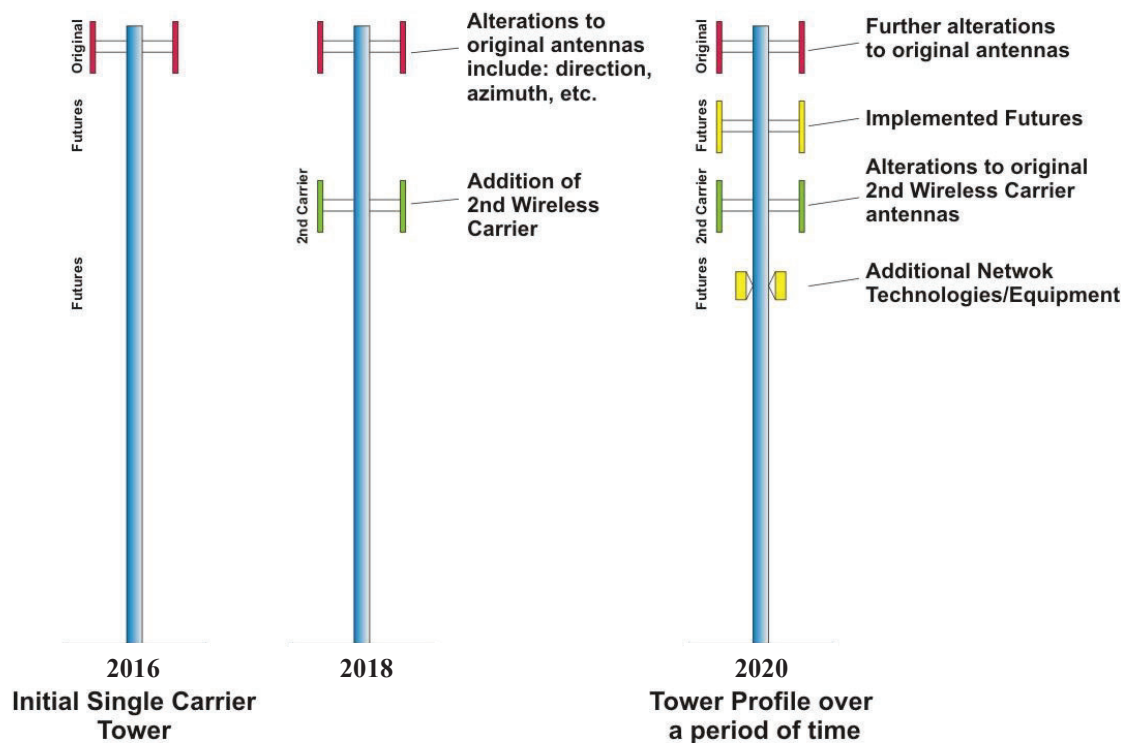
Latitude (NAD 83) N 43 52' 30"

Longitude (NAD 83) W 78 50' 18.8"

Bell Mobility's proposed tower will accommodate wireless antennas for the purpose of providing wireless communications coverage and network capacity. To the end user, this translates into Bell's suite of wireless technologies such as cellular phone or wireless internet coverage. Depending on the signal strength, and the amount of data being downloaded, the regular user should not see a difference between this and a fibre line.

Bell strongly supports co-location on existing towers and structures and designed the tower to accommodate future carriers on the tower. The use of existing structures minimizes the number of new towers required in a given area and is generally a more cost-effective way of doing business. However, tower infrastructure is a finite resource and over time most towers reach their engineered maximum. This normally results when more than two carriers occupy the same tower as illustrated in **Figure 7**. The proposed tower is designed to support and accommodate additional carriers.

Figure 7



Towers are limited in terms of both allowable space and engineering capacity. Each antenna array requires a separation of vertical space so they do not cause interference with each other.

Unfortunately, there are no pre-existing towers that would work for co-location and given the low average height of structures in the search area, a rooftop antenna installation is also not viable.

Description of Proposed System

The proposed system for 970 Nelson Road is a steel, meso telecommunications tower that is 22 metres in height. A fenced-in compound would also be constructed, and would occupy a ground compound area of approximately 9.3 square metres.

Bell Mobility proposes to install antenna and microwave equipment. The tower would initially provide wireless voice and data services for subscribers to the Bell Mobility network.

Statement Indicating Need for Tower Height

The proposed tower has been designed at a height of 22 metres. Due to the large coverage hole that currently exists in Bell Mobility's network in this part Oshawa, this height is required to provide optimal coverage to the area for voice and, importantly, data

use, and to “pass on” calls and other uses effectively to surrounding towers in the network. The height will also allow other carriers to use the tower for their own equipment.

Health Canada’s Safety Code 6 Compliance

Bell Mobility attests that the radio antenna system described in this report will comply with Health Canada’s Safety Code 6 limits, as may be amended from time to time, for the protection of the general public including any combined effects of additional carrier collocations and nearby installations within the local radio environment.

Canadian Environmental Assessment Act and Conservation Authority

Bell Mobility attests that the radio antenna system described in this notification package is not subject to the *Canadian Environmental Assessment Act, 2012*; therefore this facility is exempt from assessment.

Bell Mobility has also made every effort to design the tower and access in compliance with the Central Lake Ontario Conservation Authority (CLOCA) regulations.

Transport Canada’s Aeronautical Obstruction Marking Requirements

Bell Mobility attests that the radio antenna system described in this notification package will comply with Transport Canada / NAV Canada aeronautical safety requirements. Bell Mobility has made all necessary applications to Transport Canada and NAV Canada. At the time of writing, NAV Canada has not completed their review of the proposed structure. However, given that the structure is not in close proximity to any aerodrome, we anticipate that lighting and/or painting of the structure will not be required. Transport Canada has completed their evaluation and determined that no lighting will be required.

Engineering Practices

Bell Mobility attests that the radio antenna system described in this notification package will be constructed in compliance with the National Building Code of Canada, specifically CSA S37-18 or modifications thereof and comply with good engineering practices including structural adequacy.

Distance to Residential

The nearest residential use outside of the subject property is approximately 230 metres North of the proposed site, on Trafalgar Ave, as illustrated in Figure 8. While the closest horizontal residence is 357 metres west of the proposed tower, illustrated in Figure 9.

Figure 8 – Distance to nearest residential

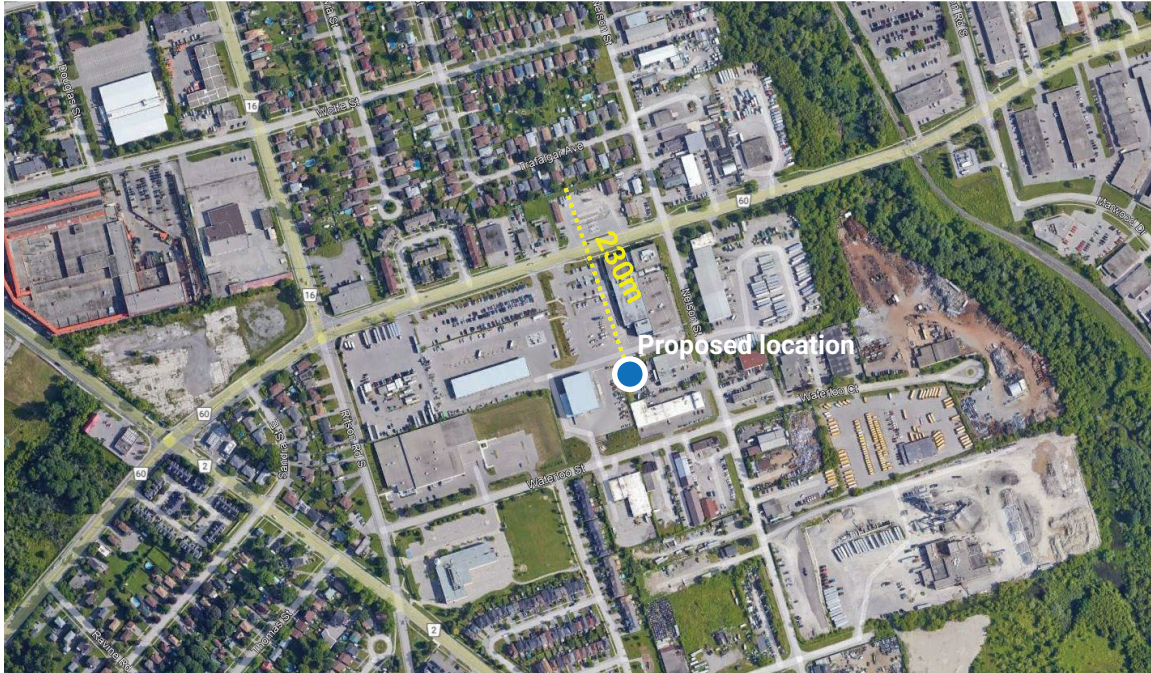
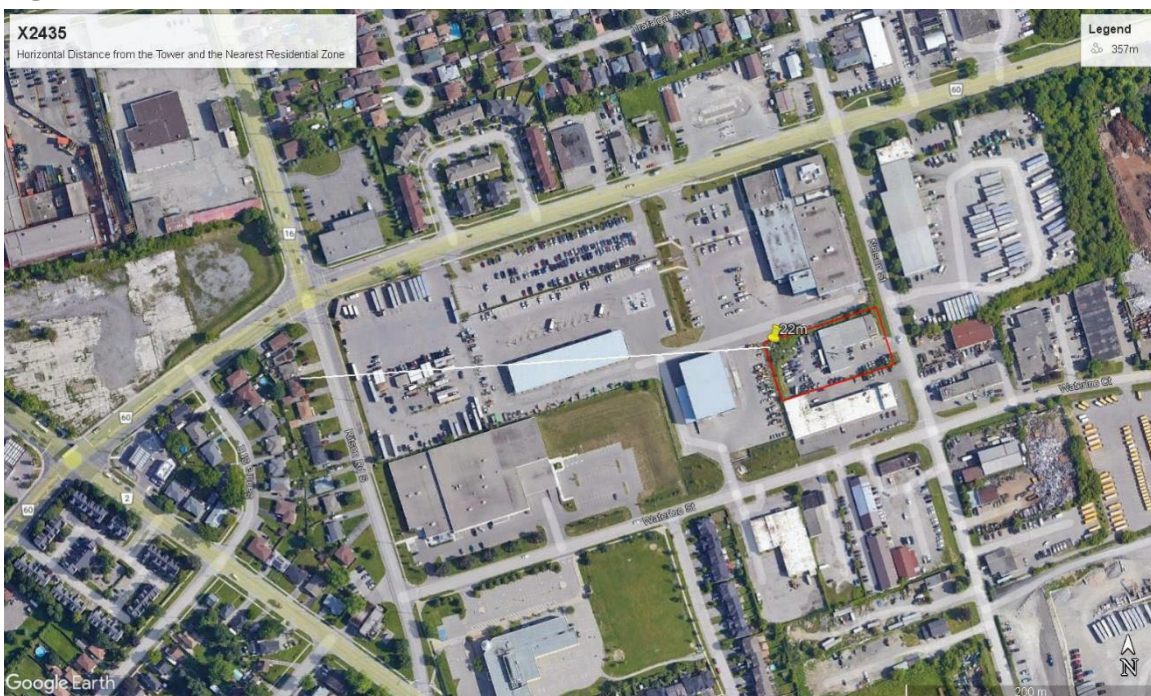


Figure 9 – Horizontal distance to nearest residential



Justification of Preferred Tower Type

Due to the dearth of existing telecommunication facilities in the area, and the demand for improved wireless services, there is a great need for new wireless signal in the search area. As a result, Bell Mobility has designed a steel meso tower. This tower allows for potential co-location while simultaneously resulting in an aesthetically-pleasing design. This design, in addition to the proposed height of the tower (22m) should allow The City of Oshawa to minimize the amount of towers required in this semi-urban area in the future.

Public Consultation

In accordance with Industry Canada's CPC 2-0-03 guidelines and Section 4.3 of Oshawa's *Council Policy for New Telecommunication Facilities*, Bell Mobility will conduct a public circulation at the appropriate time in the evaluation process.

Impact on Sensitive Land Uses/Features

This installation will not affect any sensitive land uses, natural heritage, significant vegetation, or agricultural uses.

Conclusion

Canadians as a whole are becoming more dependent on wireless products for personal, business, and emergency purposes. In many areas of the country, more than half of all 9-1-1 calls are now made via a mobile phone. To that end, an improvement upon the current wireless coverage in this area of the City of Oshawa would be a benefit to the community.

Bell Mobility believes the proposal:

- Is in a location technically suitable to meet Bell Mobility's network requirements;
- Is a design that will accommodate additional providers in the future, if needed;
- Is a development compatible and appropriate with surrounding uses, and will have limited impact on existing land uses in the vicinity.

Bell Mobility is committed to effective public and municipal consultation. Should you have any questions or require further information regarding our proposal, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Patel" with a stylized flourish extending from the end of the word.

Vallari Patel, Planner
Consultant for Bell Mobility

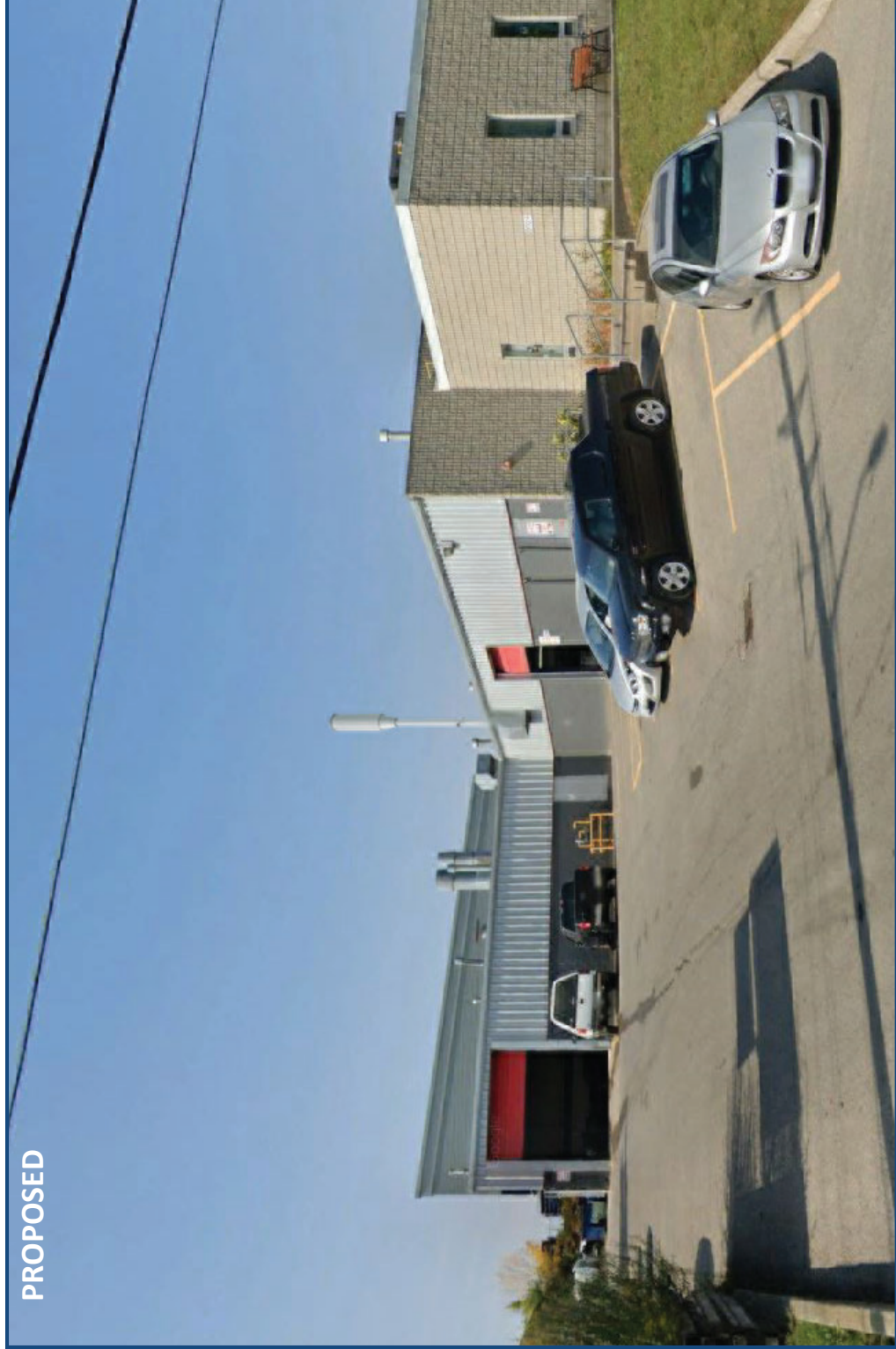


X2435 — 970 Nelson Road Oshawa, ON — East



FONTUR

PROPOSED



PHOTOGRAPHIC SIMULATION

Proposed 22.0m Meso Flower tower. The photo simulation is based on information provided by Bell Mobility Inc. prior to construction.





X2435 — 970 Nelson Road Oshawa, ON — North



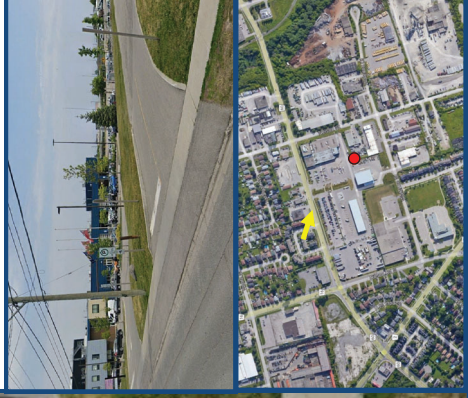
FONTUR

PROPOSED



PHOTOGRAPHIC SIMULATION

Proposed 22.0m Meso Flower tower. The photo simulation is based on information provided by Bell Mobility Inc. prior to construction.





X2435 — 970 Nelson Road Oshawa, ON — West

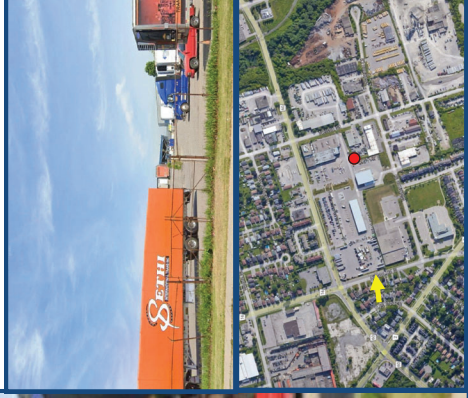


FONTUR

PROPOSED

PHOTOGRAPHIC SIMULATION

Proposed 22.0m Meso Flower tower. The photo simulation is based on information provided by Bell Mobility Inc. prior to construction.



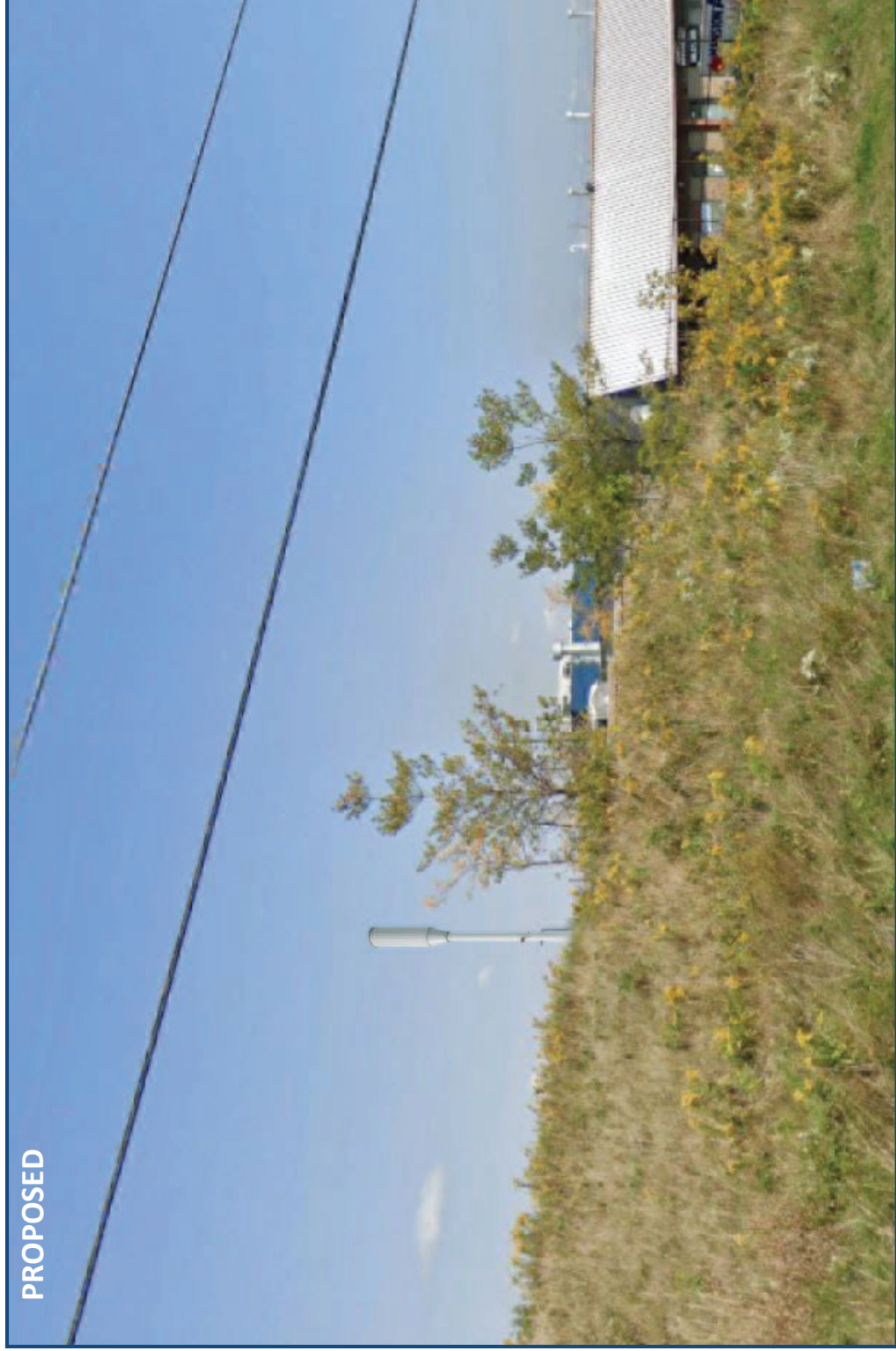


X2435 — 970 Nelson Road Oshawa, ON — South



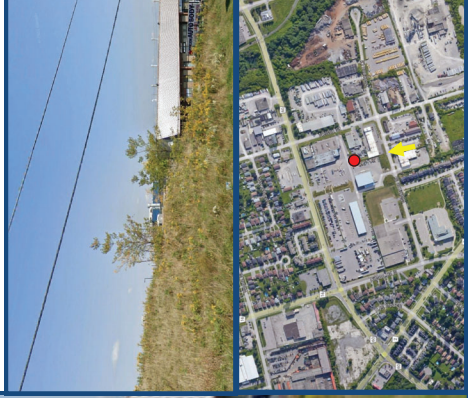
FONTUR

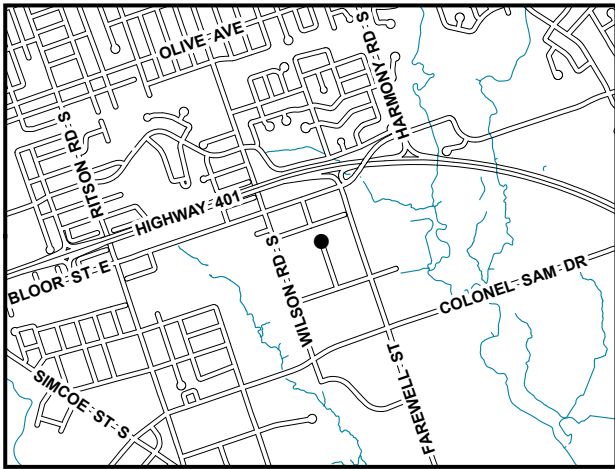
PROPOSED



PHOTOGRAPHIC SIMULATION

Proposed 22.0m Meso Flower tower. The photo simulation is based on information provided by Bell Mobility Inc. prior to construction.





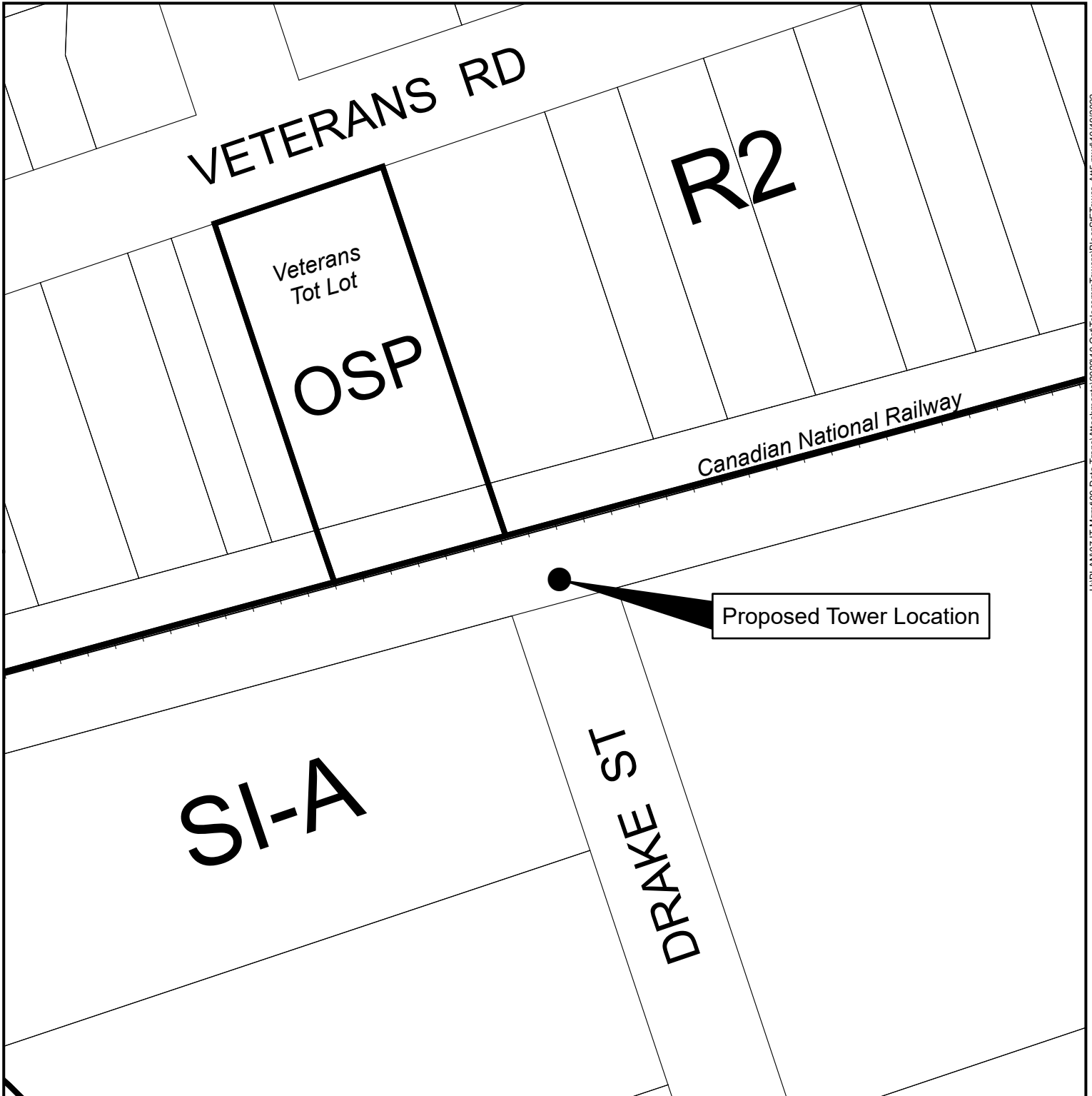
Item: ED-22-205
Attachment 5

Economic & Development Services

Subject: Proposed Telecommunication Towers and Related Equipment, 633 Merritt Street, 970 Nelson Street and the CNR Corridor North of the Northern Terminus of Drake Street, Fontur International Inc. on behalf of Bell Mobility Inc.

Ward: Ward 5

File: SPA-2022-22, SPA-2022-24 and SPA-2022-29





June 15, 2022

**Site Selection & Justification Report
Wireless Telecommunications Tower Site**

CN Rail – Drake St, Oshawa, Ontario

Bell Mobility – contracted to:
FONTUR International

70 East Beaver Creek Road, Suite 22
Richmond Hill, ON L4B 3B2

Table of Contents

Introduction3

Purpose - Background & Coverage Requirement.....3

Identification & Evaluation of Different Site Location Options7

Proposed Site Location8

Description of Proposed System..... 10

Statement Indicating Need for Tower Height..... 11

Health Canada’s Safety Code 6 Compliance 11

Canadian Environmental Assessment Act and Conservation Authority 11

Transport Canada’s Aeronautical Obstruction Marking Requirements 11

Engineering Practices 11

Distance to Residential 12

Justification of Preferred Tower Type..... 12

Public Consultation 12

Impact of Sensitive Land Use.....12

Conclusion 13



Introduction

The on-going increase in the use of personal cellular telephones and other wireless devices for personal, business, and emergency purposes requires the development of new wireless telecommunications infrastructure. This infrastructure includes new antennas and their support structures which are required to meet the demands of increased capacity and broadening service areas. Without antennas in close proximity to a wireless device, wireless communication is simply not possible.

The use of wireless telecommunications is firmly entrenched into Canadian society and economy. Canadians currently use more than 30 million wireless devices on a daily basis including, wireless phones, tablets, mobile radios, and broadband internet devices. Three-quarters of every Canadian household have access to a wireless phone, and more than half of all phone connections are wireless. About one-third of households now use cellphones exclusively (i.e. no landline). More importantly, each year Canadians place more than 6 million calls to 9-1-1 or other emergency numbers from their mobile phones and many major urban centres report that over half of all emergency calls are made by cell phone.

As part of its on-going commitment to provide high quality wireless services, Bell Mobility has determined that a new wireless telecommunications facility is required in the City of Oshawa.

As a general matter, Bell's site selection process is a balanced exercise that must meet Bell's network coverage objectives, having regard for land use constraints and its obligation to its customers to provide a high quality of service.

Wireless telecommunications facilities are regulated by the Federal Government under Innovation, Science and Economic Development Canada and need not follow municipal or provincial planning approvals. However, in recognition of the policy vacuum which exists as a result of that circumstance, Industry Canada requires that wireless telecommunication carriers consult with land use authorities.

Purpose - Background & Coverage Requirement

A radio antenna and a tower are the two most important parts of a radio communication system. The antenna is needed to send and receive signals for the radio station. The tower raises the antenna above obstructions such as trees and buildings so that it can send and receive these signals clearly. Each radio station and its antenna system (including the tower) provide radio coverage to a specific geographic area, often called a cell. The antenna system must be carefully located to ensure that it provides a good signal over the whole cell area, without interfering with other stations and can "carry" a call as the user moves from cell to cell.

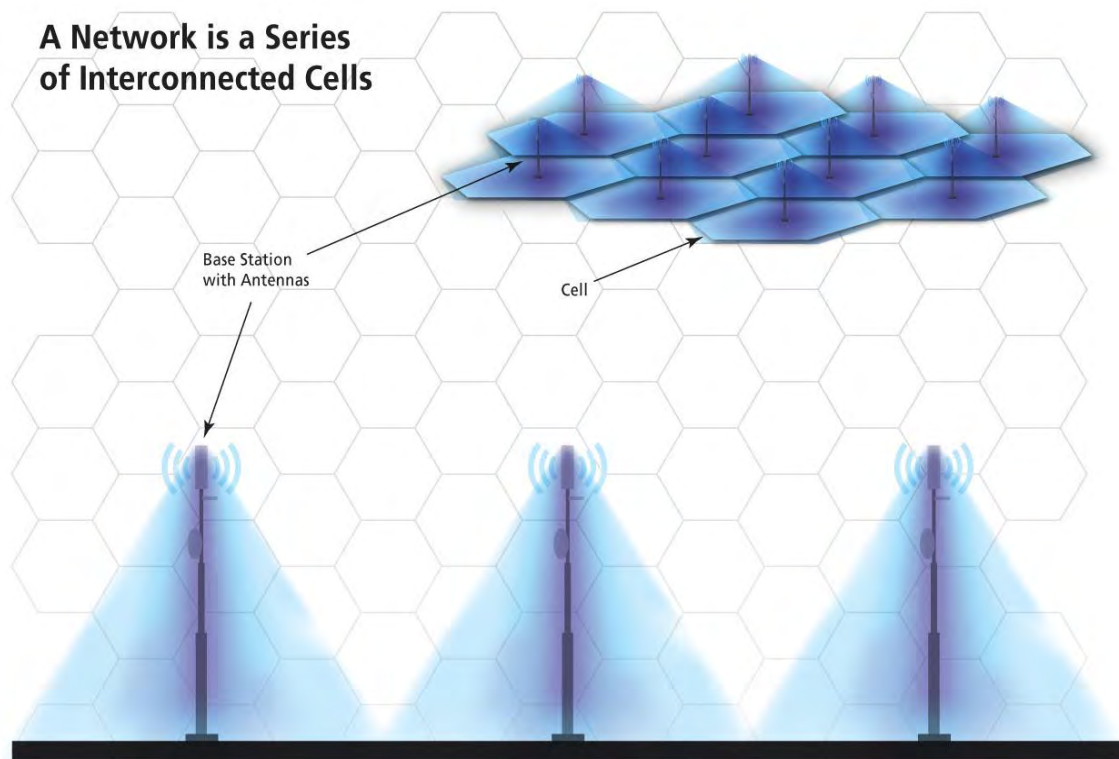


Figure 1

If the station is part of a radio telephone network, the number of stations needed also depends on how many people are using the network. If the number of stations is too small, or the number of users increases people may not be able to connect to the network, or the quality of service may decrease.

As the number of users exceeds the capacity of the radio station to receive and send calls, the coverage area for the cell shrinks and the shrinkage between cells creates coverage holes.

As demand increases for mobile phones and new telecommunication services, additional towers are required to maintain or improve the quality of service to the public and restore contiguous wireless service.

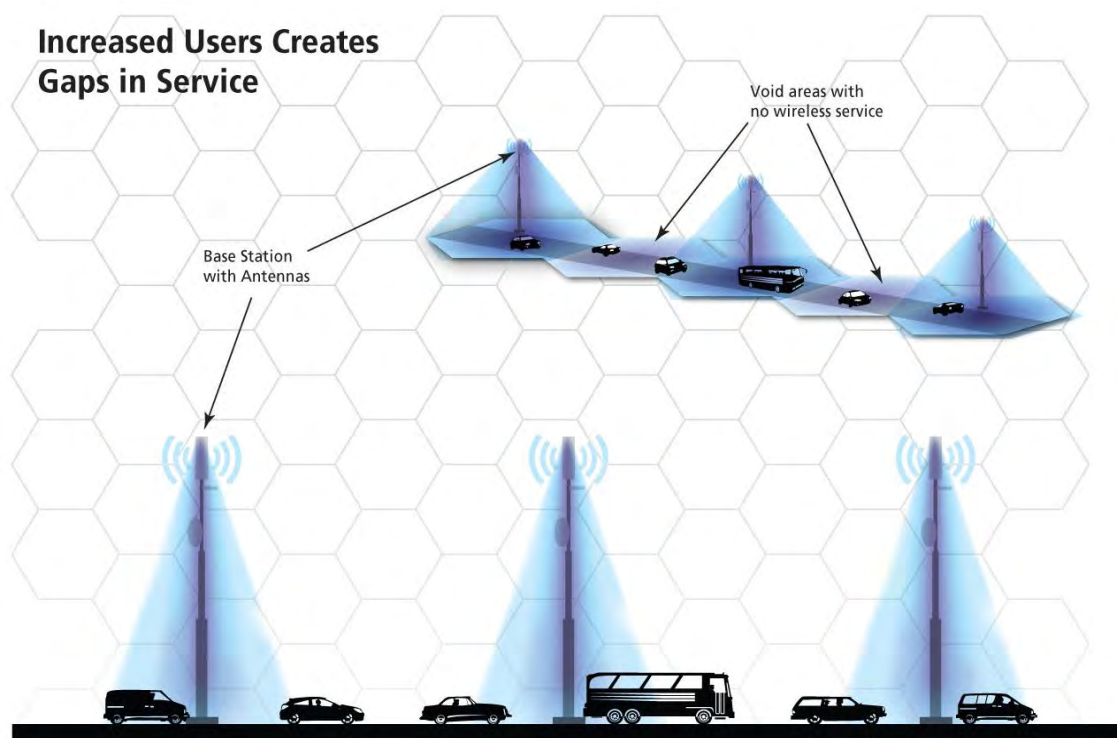


Figure 2

In this case, Bell Mobility's Radio Frequency Engineering department has determined the need for a service upgrade to adequately provide continuous coverage and service to our existing and future customer base within the City of Oshawa. Currently, our network is burdened by a combination of poor voice and data quality, specifically in high-use residential areas and transportation corridors. In some cases, the coverage is so poor that a handset would be unable to place a mobile call at all in the subject location and surrounding area. The result of this situation is on-going customer complaints, high "dropped call" rates, and in extreme circumstances, the potential inability to place a mobile call that may be absolutely critical in an emergency situation.

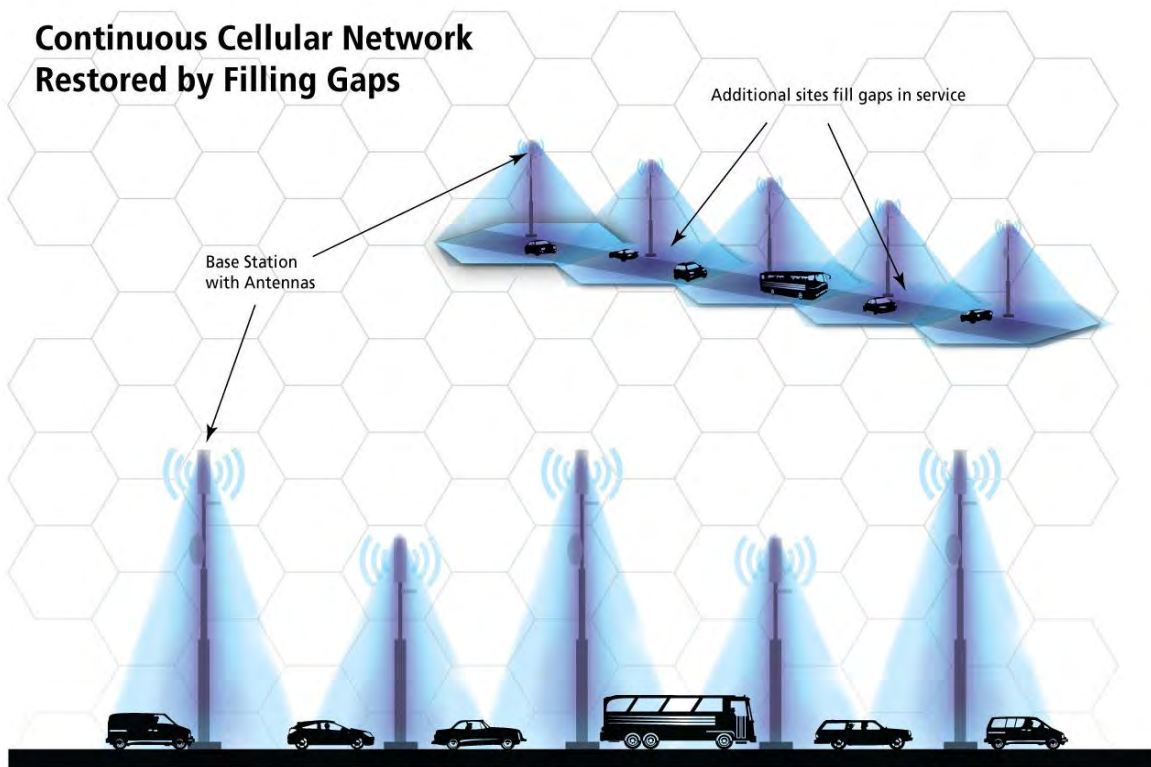


Figure 3

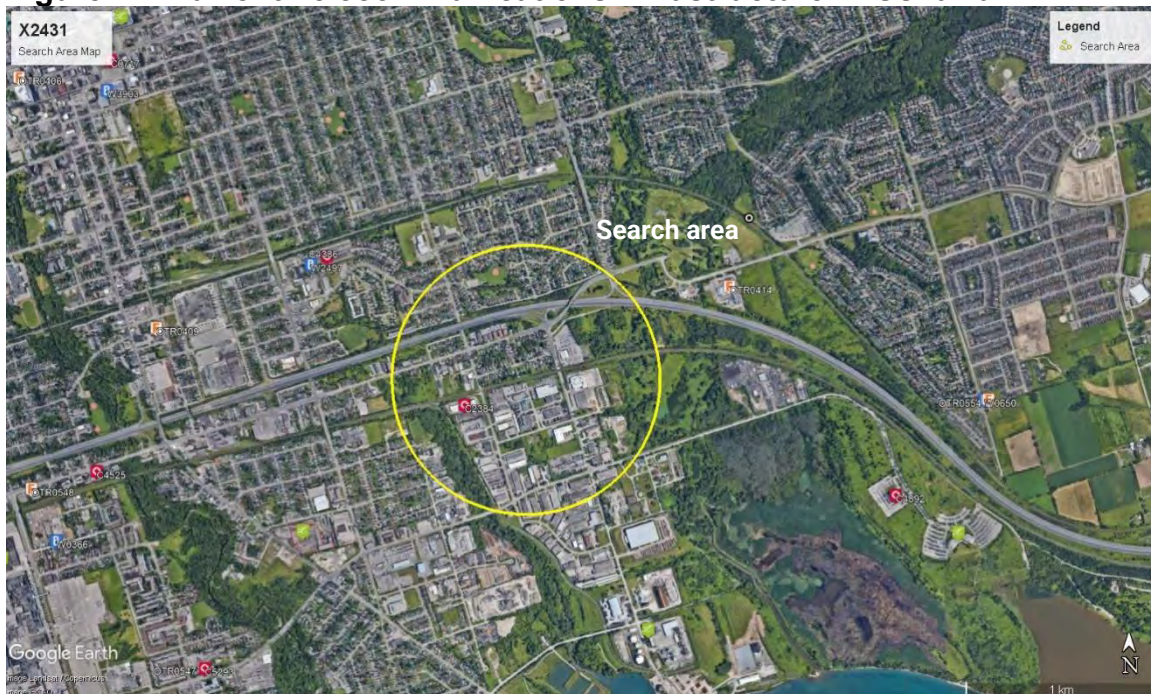
Bell Mobility is committed and mandated by its license to ensure the best coverage and service to the public and private sectors. The proposed site in the City of Oshawa is extremely important in terms of providing coverage to an area that is under-serviced. Bell Mobility wants to provide infrastructure necessary to ensure that both residents and visitors to the area have access to service.

A drive test was conducted along area roads such as Bloor St E, Colonel Sam Dr, and smaller residential streets in this area, for the purpose of determining our coverage objectives. Very weak coverage areas with poor signal strength were found around and along these stretches of road, which generate significant coverage requirements as a result of the number of users and the varying topography. Bell Mobility is also anticipating significant growth in the amount of wireless broadband use in this area as a result of the general increase in wireless services use and local population increase.

Bell Mobility's existing coverage in this part of the City of Oshawa is in need of upgrading. Like all other infrastructure, it must keep up with changes in the ways people use technology, as well as general population growth of the area. As illustrated in the map below (**Figure 4**), there is a gap in wireless telecommunications infrastructure in the area of coverage need. The following sites are within 700m of our search area, and are shown in Figure 4:

- **48m Rogers Monopole Tower** located at 712 Wilson Road S, approximately 340m from the proposed Bell tower location. As Rogers has multiple antennas on this tower the available space is too low to meet Bell's coverage requirements for co-location. Carriers require a 3 metre separation distance between antennas which would not allow Bell Mobility to meet their coverage objectives within this Oshawa neighborhood.
- All other towers/antennas are beyond Bell's search area resulting in co-location not possible.
- Due to the low height of surrounding structures within the search area Bell is unable to place antennas on top of any buildings as 22m is the required height.

Figure 4 – Current Telecommunications Infrastructure in Oshawa



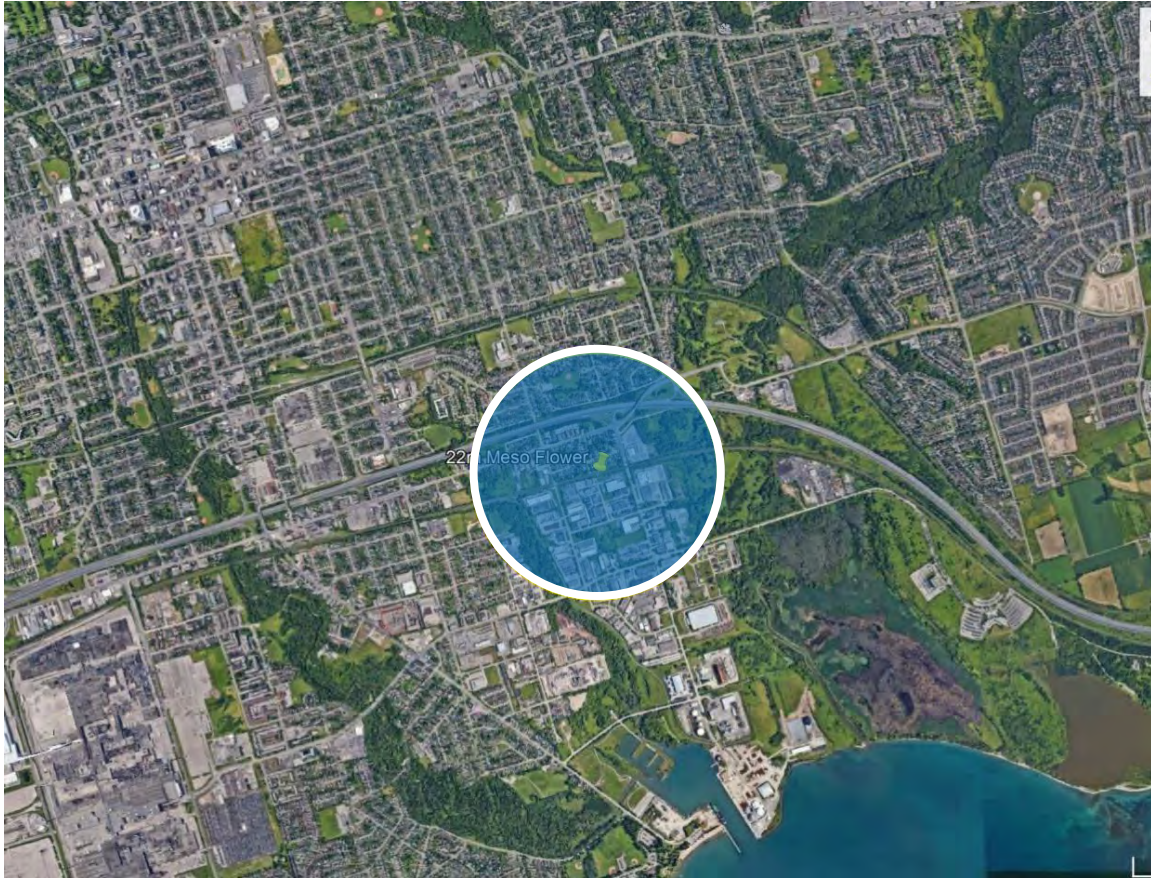
New equipment is therefore required in this area, to accommodate growing demand for wireless services, to mitigate existing coverage and capacity issues, and to effectively pass on calls to other towers in the network.

Identification & Evaluation of Different Site Location Options

Based on research by Bell's Radio Frequency Engineering team, a general search area location was chosen centered along the property line of Canadian National Railway at Drake Street. A site within the search area on the map below (**Figure 5**) would, from an engineering point of view, meet the coverage objectives of Bell's network. Typically, in semi-urban areas, the search area can have a radius of between 500 to 700 metres.

A review of existing telecommunications installations within the search area, as illustrated in **Figure 4**, revealed that there are no existing towers that would meet Bell Mobility's coverage requirements (i.e. within the search area).

Figure 5 – Search area



The search area consists of predominantly residential, industrial, and other sensitive land uses, which had a significant effect on the number and quality of site candidates.

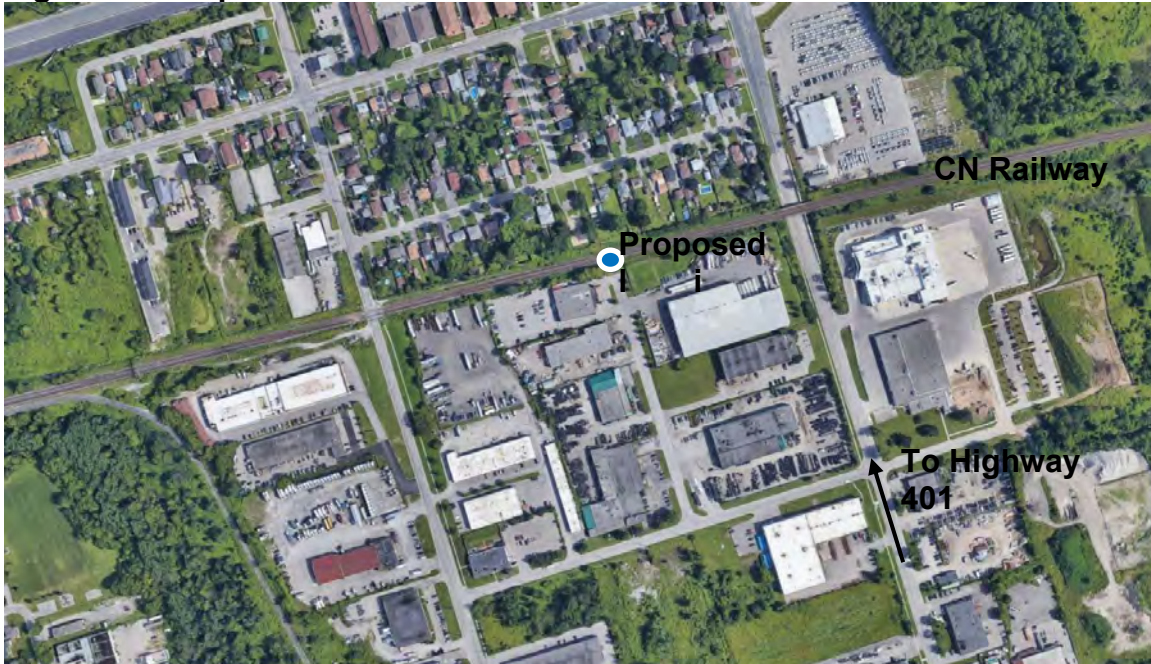
After visiting the search area and reviewing the City of Oshawa's *Council Policy for New Telecommunication Facilities*, we identified a number of potential sites that would meet engineering requirements, as well as the standards outlined in Industry Canada's CPC 2-0-03 document. We proceeded to meet with several land owners in the area to discuss potential locations.

Proposed Site Location

The location which Bell proposes for a wireless telecommunications site in the City of Oshawa is on the property own by the Canadian National Railway (**Figure 6**). The proposed site is a federally-owned property.

The property's legal description is: PT LT 6 CON BROKEN FRONT EAST WHITBY AS IN ONT1641; OSHAWA

Figure 6 – Proposed location



The site itself is located approximately 175 metres West of Farewell Street.

The geographic coordinates for the site are as follows;

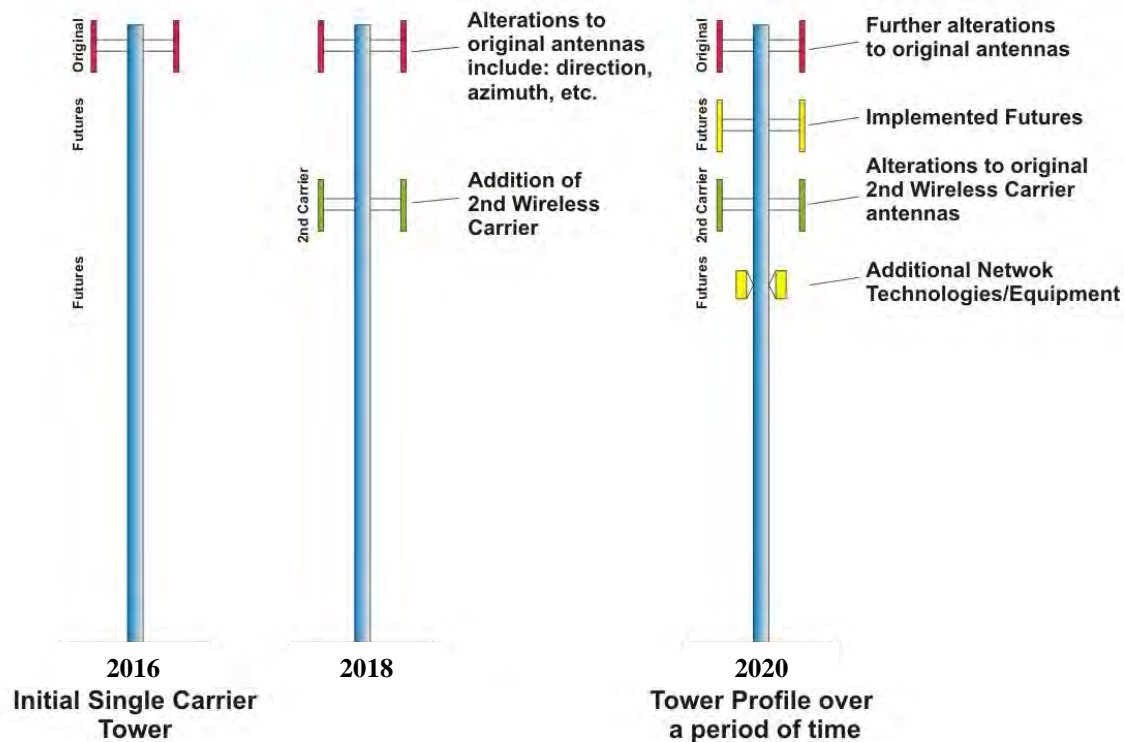
Latitude (NAD 83) N 43° 53' 00.1"

Longitude (NAD 83) W 78° 49' 56.7"

Bell Mobility's proposed tower will accommodate wireless antennas for the purpose of providing wireless communications coverage and network capacity. To the end user, this translates into Bell's suite of wireless technologies such as cellular phone or wireless internet coverage. Depending on the signal strength, and the amount of data being downloaded, the regular user should not see a difference between this and a fibre line.

Bell strongly supports co-location on existing towers and structures and designed the tower to accommodate future carriers on the tower. The use of existing structures minimizes the number of new towers required in a given area and is generally a more cost-effective way of doing business. However, tower infrastructure is a finite resource and over time most towers reach their engineered maximum. This normally results when more than two carriers occupy the same tower as illustrated in **Figure 7**. The proposed tower is designed to support and accommodate additional carriers.

Figure 7



Towers are limited in terms of both allowable space and engineering capacity. Each antenna array requires a separation of vertical space, so they do not cause interference with each other.

Unfortunately, there are no pre-existing towers that would work for co-location and given the low average height of structures in the search area, a rooftop antenna installation is also not viable.

Description of Proposed System

The proposed system for along CN Railway's property is a steel Meso Flower telecommunications tower that is 22 metres in height. A fenced-in compound would also be constructed and would occupy a ground compound area of approximately 13.85 square metres.

Bell Mobility proposes to install antenna and microwave equipment. The tower would initially provide wireless voice and data services for subscribers to the Bell Mobility network.

Statement Indicating Need for Tower Height

The proposed tower has been designed at a height of 22 metres. Due to the large coverage hole that currently exists in Bell Mobility's network in this part of the City of Oshawa, this height is required to provide optimal coverage to the area for voice and, importantly, data use, and to "pass on" calls and other uses effectively to surrounding towers in the network. The height will also allow other carriers to use the tower for their own equipment.

Health Canada's Safety Code 6 Compliance

Bell Mobility attests that the radio antenna system described in this report will comply with Health Canada's Safety Code 6 limits, as may be amended from time to time, for the protection of the general public including any combined effects of additional carrier collocations and nearby installations within the local radio environment.

***Canadian Environmental Assessment Act* and Conservation Authority**

Bell Mobility attests that the radio antenna system described in this notification package is not subject to the *Canadian Environmental Assessment Act, 2012*; therefore, this facility is exempt from assessment.

Bell Mobility has also made every effort to design the tower and access in compliance with the Central Lake Ontario Conservation (CLOC) regulations.

Transport Canada's Aeronautical Obstruction Marking Requirements

Bell Mobility attests that the radio antenna system described in this notification package will comply with Transport Canada / NAV Canada aeronautical safety requirements. Bell Mobility has made all necessary applications to Transport Canada and NAV Canada.

At the time of writing, neither Transport nor NAV Canada has completed their review of the proposed structure. However, given that the structure is not in close proximity to any aerodrome, we anticipate that lighting and/or painting of the structure will not be required.

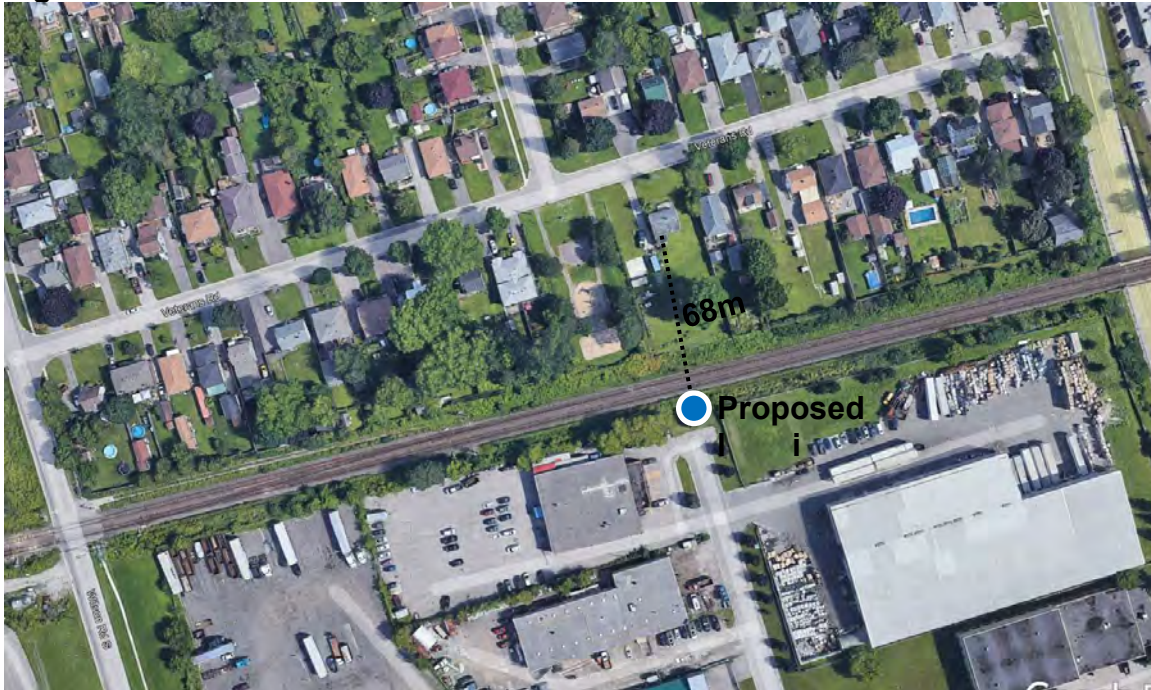
Engineering Practices

Bell Mobility attests that the radio antenna system described in this notification package will be constructed in compliance with the National Building Code of Canada, specifically CSA S37-18 or modifications thereof and comply with good engineering practices including structural adequacy.

Distance to Residential

The nearest residential use outside of the subject property is approximately 68 metres North of the proposed site, on Veterans Road, as illustrated in Figure 8.

Figure 8 – Distance to nearest residential



Justification of Preferred Tower Type

Due to the dearth of existing telecommunication facilities in the area, and the demand for improved wireless services, there is a great need for new wireless signal in the search area. As a result, Bell Mobility has designed a Steel Meso Flower. This tower allows for potential co-location while simultaneously resulting in an aesthetically-pleasing design. This design, in addition to the proposed height of the tower (22m) should allow The City of Oshawa to minimize the amount of towers required in this area in the future.

Public Consultation

In accordance with Industry Canada's CPC 2-0-03 guidelines and Section 4.3 of the City of Oshawa's *Council Policy for New Telecommunication Facilities*, Bell Mobility will conduct a public circulation at the appropriate time in the evaluation process.

Impact on Sensitive Land Uses/Features

This installation will not affect any sensitive land uses, natural heritage, significant vegetation, or agricultural uses.

Conclusion

Canadians as a whole are becoming more dependent on wireless products for personal, business, and emergency purposes. In many areas of the country, more than half of all 9-1-1 calls are now made via a mobile phone. To that end, an improvement upon the current wireless coverage in this area of the City of Oshawa would be a benefit to the community.

Bell Mobility believes the proposal:

- Is in a location technically suitable to meet Bell Mobility's network requirements;
- Is a design that will accommodate additional providers in the future, if needed;
- Is a development compatible and appropriate with surrounding uses, and will have limited impact on existing land uses in the vicinity.

Bell Mobility is committed to effective public and municipal consultation. Should you have any questions or require further information regarding our proposal, please do not hesitate to contact the undersigned.

Sincerely,



Lucas Cuff, Planner
Consultant for Bell Mobility Inc.

Council Policy for New Telecommunication Facilities

1. Purpose

To establish policies and procedures for the installation of new telecommunication antennas, towers and related structures which emphasize the following:

- Selecting locations for telecommunication facilities which ultimately minimize the number of such facilities and their visual impact;
- Allowing input from the public; and
- Providing a clear process for the installation of new telecommunications facilities.

Innovation, Science and Economic Development Canada, the approval authority for regulating telecommunications facilities, ensures that municipalities are consulted prior to the construction of towers and antenna structures. The role of the City is to provide comments with respect to land use compatibility and community input. Innovation, Science and Economic Development Canada advises that the City has no constitutional authority to regulate or prohibit telecommunications facilities.

2. Source

City Council approval on June 11, 2007, as amended on June 2, 2008 and September 22, 2014.

3. Policy

3.1 Definitions

Antenna shall mean a device for transmitting and receiving electromagnetic waves, wireless communication signals or other communication signals.

Alternative tower structures shall mean man-made support structures that camouflage or conceal the presence of antennas or towers such as flagpoles, clock towers, church steeples, street lights, artificial trees and other everyday features.

Co-location shall mean the placement of one or more antenna on the same telecommunication tower or alternative tower structures.

Equipment Shelter shall mean a structure containing equipment necessary to transmit and receive signals.

Height shall mean the height of an antenna system measured from the lowest ground level at the base, including the foundation, to the tallest point of the antenna system. Depending on the particular installation, the tallest point may be an antenna, lightning rod, aviation obstruction lighting or some other appurtenance. Any attempt to artificially reduce the height (addition of soil, aggregate, etc.) will not be included in the calculation or measurement of the height of the antenna system.

Telecommunications Facilities shall mean telecommunication tower and/or antenna and an equipment shelter.

Telecommunications Towers shall mean structures designed and constructed to support one or more antennas, including lattice towers, monopoles and guyed towers.

3.2 Site Selection for New Telecommunication Towers

- (a) The installation of new telecommunications towers is discouraged unless all other options within the telecommunication company search area have been explored and are considered inappropriate. The preferred methods of achieving additional capacity are:
 - (i) Co-location on existing towers;
 - (ii) Location on hydro transmission towers;
 - (iii) Location of towers within or adjacent to hydro transmission corridors;
 - (iv) Use of alternative tower structures; and
 - (v) Clustering adjacent to existing telecommunication towers.
- (b) A telecommunication tower shall be located in a manner which minimizes its visual impact. When locating a new telecommunication tower the following shall be considered:
 - (i) Avoidance of natural features, significant vegetation, hazard lands (e.g. floodplains, steep slopes) and environmentally sensitive areas;
 - (ii) Locations shall be sensitive to residential areas, historic sites, environmentally sensitive areas and hazard lands;
 - (iii) Alternative tower structures are encouraged within the Major Urban Area and Hamlet boundaries as identified in the Oshawa Official Plan;
 - (iv) An appropriate setback shall be maintained from road right-of-ways;
 - (v) Avoiding areas of topographical prominence, where possible, to minimize long/short range views; and
 - (vi) Locations and heights that are in compliance with Transport Canada's requirements relative to the Oshawa Municipal Airport.

3.3 Site Design and Layout

(a) New Telecommunication Towers

The following shall be considered in the site design and layout of new telecommunications towers:

- (i) Planting of trees and shrubs around the perimeter fencing to mitigate the visual impact of the tower and equipment shelter,

- (ii) Small identification sign(s) of the telecommunication company may be permitted on the equipment shelter or perimeter fencing subject to the issuance of a sign permit as necessary; and
- (iii) Where alternative tower structures are not feasible, telecommunication towers and equipment shelters should blend in with the context (e.g. colour, etc.) of its surroundings. The architecture of an equipment shelter should reflect the area within which it is located (e.g. pitched roof, or brick if in a residential area).

(b) Installations on Roof Tops or Existing Structures

When locating a telecommunication antenna or equipment shelter on rooftops or existing structures, telecommunication companies shall endeavour to minimize the visual impacts of such uses by considering the following:

- (i) Wall mounted antenna on the side of a building are discouraged below the roof but may be permitted subject to appropriate design. Wall mounted antenna on penthouses and stairwells above the roof are preferred;
- (ii) Utilizing alternative tower structures;
- (iii) New antennas should have a maximum height of 6 metres above the highest point of the building or existing structure and it should be setback a minimum of 3 metres from the roof edge on a building;
- (iv) Equipment shelters on roof tops should be setback from the roof edge as appropriate with appropriate consideration of the structural design of the roof;
- (v) The colour and architectural style of the antenna and equipment shelter shall blend in with the building or structure;
- (vi) If an equipment shelter is aboveground and related to a roof-top antenna then the architecture of the equipment shelter must reflect appropriate urban design considerations related to the area within which it is located (e.g. pitched roof, brick if in a residential area); and
- (vii) Locations and heights that are in compliance with Transport Canada's requirements relative to the Oshawa Municipal Airport.

3.4 Other

- (a) The City will encourage buildings greater than 6 storeys to be pre-designed to accommodate antenna and equipment shelters.
- (b) Telecommunication companies shall be encouraged to remove facilities after their lease has expired.

4. Procedure

4.1 Pre-consultation

Prior to the installation of telecommunications facilities, telecommunication companies are encouraged to consult with the City's Planning Services Branch in the Development Services Department to discuss the site search area, site selection, including land use compatibility, sensitive visual areas and vistas, existing and proposed land uses and other potential impacts. Consultation with the Chief Building Official may also be required.

Telecommunications companies are requested to consult with the City on proposals that involve above ground equipment shelters even though they may be exempt according to Innovation, Science and Economic Development Canada's procedures to ensure the shelters are appropriately located, designed (e.g. architecture) and landscaped given the site context (e.g. in a residential area).

4.2 Submission Requirements

For the purposes of administration and processing, telecommunication companies will be required to complete an application for site plan approval. The application shall be submitted to the Planning Services Branch in the Development Services Department with the appropriate fee. Such applications are not processed under the Planning Act.

(a) New Telecommunication Towers

All proposals for new telecommunication towers, where consultation with the City is required by Innovation, Science and Economic Development Canada, will generally include the following information:

- (i) Written justification from the telecommunication company, as to the need for the telecommunication tower and that the proposed location for the new tower is the preferred alternative. Non-tower, co-location and alternative tower structures shall be addressed in the justification;
- (ii) A site plan showing such items as the subject property, including the existing property lines and the leased area (if applicable), existing and proposed buildings, fences, buffering, building elevations, access, parking and the type and height of the proposed tower structure. Additional plans such as a landscape plan, a site servicing/grading plan and erosion and sediment control plan may also be required later in the review process;
- (iii) Pictures of the location and the proposed tower and associated facilities superimposed on the picture from four directions, north, south, east and west;
- (iv) A plan showing the horizontal distance between the tower installation and the nearest residential zone and/or residential dwelling; and
- (v) A public notification package containing the information required by Appendix 1 – Innovation, Science and Economic Development Canada's Default Public Consultation Process – Public Notification Package in Innovation, Science

(b) Installations on Roof Top or Existing Structures

All proposals for telecommunication antenna or equipment shelters on roof tops or existing structures, where consultation with the City is required by Innovation, Science and Economic Development Canada, will generally include the following information:

- (i) A statement from the telecommunication company on the need for any increase in proposed tower height if the increased height is greater than 25% of the originally approved height;
- (ii) A plan showing the location and setbacks for the proposed antenna and associated facilities on the roof top or existing structure;
- (iii) A plan showing such items as building elevations and the location, type and height of the proposed antenna. A site plan showing such items as the subject property, the leased area, existing and proposed buildings, fences, buffers, access and parking is required for any aboveground equipment shelter. Additional plans such as a landscape plan, a site servicing/grading plan and erosion and sedimentation control plan may also be required at a later date for any aboveground equipment shelter/uses related to the antenna;
- (iv) Any relevant information as may be required by the Chief Building Official at a later date during the review process; and
- (v) Upon review of the site plan, the Development Services Department may require the telecommunication company to submit pictures of the building or structure with the proposed antenna and equipment shelter superimposed on the picture from four directions; north, south, east and west.

(c) Alterations to Existing Facilities

Where a modification to an existing site is proposed, which may include, but not be limited to, an increase in the height of the tower, additional equipment shelters or entrances, an amendment to an approved Site Plan may be required.

4.3 Public Consultation Process

(a) Exemptions from Public Consultation

Public consultation is not required in the following situations:

- (i) For installations of roof-top antenna, roof-top equipment shelters and wall mounted antenna that do not project more than 2 metres from the face of the building provided they are designed and are in a location on the roof acceptable to the Development Services Department; and

- (ii) Co-location of an antenna on an existing telecommunication tower or hydro tower.

City Council may also exempt other proposals from public consultation as appropriate. For example, City Council may consider exempting proposals from the public process where towers are proposed adjacent to 250 kv or 500 kv hydro towers or adjacent to other telecommunication towers or where equipment shelters related to a roof top antenna are located on sites which are occupied by non-residential uses or that about non-residential uses.

Notwithstanding any provisions of this policy to the contrary the City's policy does not apply to the following types of installations, based on Innovation, Science and Economic Development Canada's exemption criteria:

- (i) New Antenna Systems: where the height is less than 15 metres above ground level. This exclusion does not apply to antenna systems proposed by telecommunications carriers, broadcasting undertakings or third party tower owners;
- (ii) Existing Antenna Systems: where modifications are made, antennas added or the tower replaced, including to facilitate sharing, provided that the total cumulative height increase is not greater than 25% of the height of the initial antenna system installation. No increase in height may occur within one year of completion of the initial construction. This exclusion does not apply to antenna systems using purpose built antenna supporting structures with a height of less than 15 metres above ground level operated by telecommunications carriers, broadcasting undertakings or third party tower owners;
- (iii) Non-Tower Structures: antennas on buildings, water towers, lamp posts, etc. may be excluded from consultation provided that the height above ground of the non-tower structure, exclusive of appurtenances, is not increased by more than 25%;
- (iv) Temporary Antenna Systems: used for special events or emergency operations and must be removed within three months of the start of the emergency or special event; and
- (v) No consultation is required prior to performing maintenance on an existing antenna system.

(b) Required Public Consultation

- (i) Subject to the exemptions set out above, a public meeting is required for any new tower or any new aboveground equipment shelter.
- (ii) The Development Services Department shall give written notice, by regular mail, of the public meeting to the owners and tenants of the lands within the circulation area around the subject property, to all Members of City Council and to adjacent municipalities if the new tower is within 500 metres of the municipal boundary. The notice shall be sent at least 30 days before the public meeting date. A newspaper advertisement notifying the public of any

tower proposed to be 30 metres or more in height is required as part of the public consultation process. The newspaper advertisement will be paid for by the telecommunication company.

The circulation area for the notice is as follows:

- Within the Major Urban Area boundary - 120 metres or 4 times the height of the tower which ever is greater measured from the outside perimeter of the supporting structure. For the purpose of this requirement, the outside perimeter begins at the furthest point of the supporting mechanism, be it the outermost guy line, building edge, face of the self-supporting tower, etc.;
- In all other areas – 250 metres measured from the outside perimeter of the supporting structure. For the purpose of this requirement, the outside perimeter begins at the furthest point of the supporting mechanism, be it the outermost guy line, building edge, face of the self-supporting tower, etc.;

The notice shall include, at a minimum, the following information:

- The location of the proposed site;
- Date, time and location of Public Meeting; and
- The name and telephone number of a contact person employed by the telecommunication company, as well as a municipal contact person.

An information package provided by the telecommunication company will be included with the mailed notice.

The notice shall be clearly marked, making reference to the proposed antenna system, so that it is not misinterpreted as junk mail and that the face of the package must clearly reference that the recipient is within the prescribed notification radius of the proposed antenna system.

- (iii) The Public Meeting shall be held by the Development Services Committee.

At the Public Meeting, the telecommunication company shall be responsible for displaying all the necessary drawings and pictures and making a presentation. Subsequent to the Public Meeting, the telecommunication company shall provide to the Development Services Department a letter indicating how the telecommunication company will address the concerns raised at the public meeting.

4.4 Approvals

(a) Letter of Recommendation with a Public Meeting

- (i) After the public meeting, the Development Services Department will prepare a report for the consideration by the Development Services Committee. The telecommunication company and any person that attended the public meeting and left their names will be invited to the Development Services

Committee meeting to make any comments on the staff report, as appropriate. The Development Services Committee will then make a recommendation to Council. The telecommunication company or any person can request to speak to Council if they do not agree with the Development Services Committee recommendation. Council will then take a position on the proposal.

- (ii) The Development Services Department will issue to the telecommunication company (with a copy to Innovation, Science and Economic Development Canada) a Letter of Recommendation (Yes; No; Yes with conditions) stating that the company has consulted with the City and advising of Council's position on the proposal. Such letter will be provided within two weeks from the date of Council's decision or, in the case where a Letter of Undertaking is required, when a Letter of Undertaking has been completed to the City's satisfaction.

(b) **Letter of Recommendation without a Public Meeting**

- (i) City Council delegates the responsibility to provide the City's position on any proposal that does not require a public meeting to the Commissioner of Development Services;
- (ii) The Development Services Department will issue to the telecommunication company (with a copy to Innovation, Science and Economic Development Canada) a Letter of Recommendation (Yes; No; Yes with conditions) stating that the company has consulted with the City and advising of the City's position on the proposal. Such letter will be provided within two weeks of site plan approval including the execution of a Letter of Undertaking if required.

(c) **Letter of Undertaking**

- (i) A Letter of Undertaking is required only in situations where:
 - A new telecommunication tower is proposed;
 - A new aboveground equipment shelter is proposed; and
 - An upgrade to an existing facility is required by the City to improve the aesthetics or address grading issues.
- (ii) When the Development Services Department is satisfied with the site location, layout and design, the telecommunication company shall provide a Letter of Undertaking in the City's prescribed format. The Letter of Undertaking may address such matters as:
 - Site design, landscaping, grading and servicing and building elevations;
 - Approval for any new driveway entrances;
 - Signage;
 - Security deposits for site improvements;
 - The removal of all structures upon expiration of the lease;
 - A commitment to accommodate other telecommunication companies on site where feasible; and
 - Other conditions as required.

(d) Proposals on City Land

- (i) Any proposal from a telecommunication company to acquire or lease land from the City for a telecommunication facility shall be placed on the Development Services Committee agenda;
- (ii) If the proposal has merit then it should be referred to the Council for approval in principle to acquire or lease City land;
- (iii) In the event Council approves in principle the sale or lease of City land, the process for considering the merits of the proposed tower or proposed aboveground equipment shelter shall be coordinated by Planning Services including the scheduling of a public meeting in accordance with this policy;
- (iv) Once Council takes a formal position on a proposal on City land, after any required public meeting, then Development Services will report on the proposed terms of the lease; and
- (v) The process for any proposal that does not require a public meeting shall be coordinated by Development Services.

4.5 Time Limit for Construction

Any antenna system that has followed a consultation process with the City shall be constructed within three (3) years of the conclusion of the consultation process. Extensions to the time limit are permitted for a specified time period if a proponent secures the agreement of the City in writing and provides a copy of the agreement to the local Innovation, Science and Economic Development Canada office.

Note: Minor changes to or deviations from this policy and procedure may be made by the Commissioner of Development Services. Any significant changes must be approved by City Council.

Appendix 1 – Industry Canada’s Default Public Consultation Process - Public Notification Package

The proponent must ensure that at least **30 days** are provided for public comment. Notification must provide all information on how to submit comments to the proponent in writing. Notices must be clearly marked, making reference to the proposed antenna system, so that it is not misinterpreted as junk mail. The notice must be sent by mail or be hand delivered. The face of the package must clearly indicate that the recipient is within the prescribed notification radius of the proposed antenna system. The proponent must also provide a copy of the notification package to the land-use authority and the local Industry Canada office at the same time as the package is provided to the public.

Notification must include, but need not be limited to:

- 1) the proposed antenna system’s purpose, the reasons why existing antenna systems or other infrastructure cannot be used, a list of other structures that were considered unsuitable and future sharing possibilities for the proposal;
- 2) the proposed location within the community, the geographic coordinates and the specific property or rooftop;
- 3) an attestation¹⁹ that the general public will be protected in compliance with Health Canada’s Safety Code 6 including combined effects within the local radio environment at all times;
- 4) identification of areas accessible to the general public and the access/demarcation measures to control public access;
- 5) information on the environmental status of the project, including any requirements under the *Canadian Environmental Assessment Act, 2012*;
- 6) a description of the proposed antenna system including its height and dimensions, a description of any antenna that may be mounted on the supporting structure and simulated images of the proposal;
- 7) Transport Canada’s aeronautical obstruction marking requirements (whether painting, lighting or both) if available; if not available, the proponent’s expectation of Transport Canada’s requirements together with an undertaking to provide Transport Canada’s requirements once they become available;
- 8) an attestation that the installation will respect good engineering practices including structural adequacy;
- 9) reference to any applicable local land-use requirements such as local processes, protocols, etc.;

¹⁹ Example: I, (*name of individual or representative of company*) attest that the radio installation described in this notification package will be installed and operated on an ongoing basis so as to comply with Health Canada’s Safety Code 6, as may be amended from time to time, for the protection of the general public, including any combined effects of nearby installations within the local radio environment.

- 10) notice that general information relating to antenna systems is available on Industry Canada's Spectrum Management and Telecommunications website (<http://www.ic.gc.ca/towers>);
- 11) contact information for the proponent, land-use authorities and the local Industry Canada office; and
- 12) closing date for submission of written public comments (not less than **30 days** from receipt of notification).