



Site Selection/Justification Report – Wireless Communications Site

Prepared for: Municipality of Port Hope

Rogers Site: C9285A Eville II

Introduction

Like many areas of the province, your community is experiencing a growing demand for wireless services. As people rely more on wireless devices such as smartphones, tablets and laptops for business and personal use, network improvements are required to ensure high quality voice and data services are available.

This document outlines the site selection process in accordance with the requirements of Innovation, Science and Economic Development Canada's (ISED) Spectrum Management and Telecommunications Policy, CPC-2-0-03, Issue 6 (CPC) updated July, 2022 and provides a description of the system to be installed at 7926 Ridgeview Rd., Campbellcroft.

Telecommunications is a powerful economic enabler that promotes home occupations, teleworking, telecommuting and improved community networking and information dissemination. This site is part of the EORN Cell Gap Project.

Background and Coverage Requirement

A wireless telecommunications facility is a puzzle piece in a very complex radio network, whether that site is situated in an urban, suburban or rural setting. Customer demand and sound engineering principles direct where sites are required to be located. As people rely more on wireless devices such as smartphones, tablets and laptops for business and personal use, network improvements are required to ensure high quality voice and data services are available. In order for a wireless network to be reliable, an operator must provide "seamless" coverage so that gaps in the network are avoided. Gaps create dropped calls and overall poor service to customers. Rogers is committed and mandated by its license to ensure the best coverage and service to the public and private sectors.

The proposed site will achieve the necessary engineering coverage objectives for our network. The location will provide essential communication services in the area such as EMS Response, Police and Fire; improved wireless signal quality for the local residents, those traveling along the major roads, as well provide local subscribers with wireless network coverage and capacity for products and services such as iPhones, Smartphones, Tablets and wireless high speed internet in the surrounding area.

Rationale for New Telecommunication Infrastructure

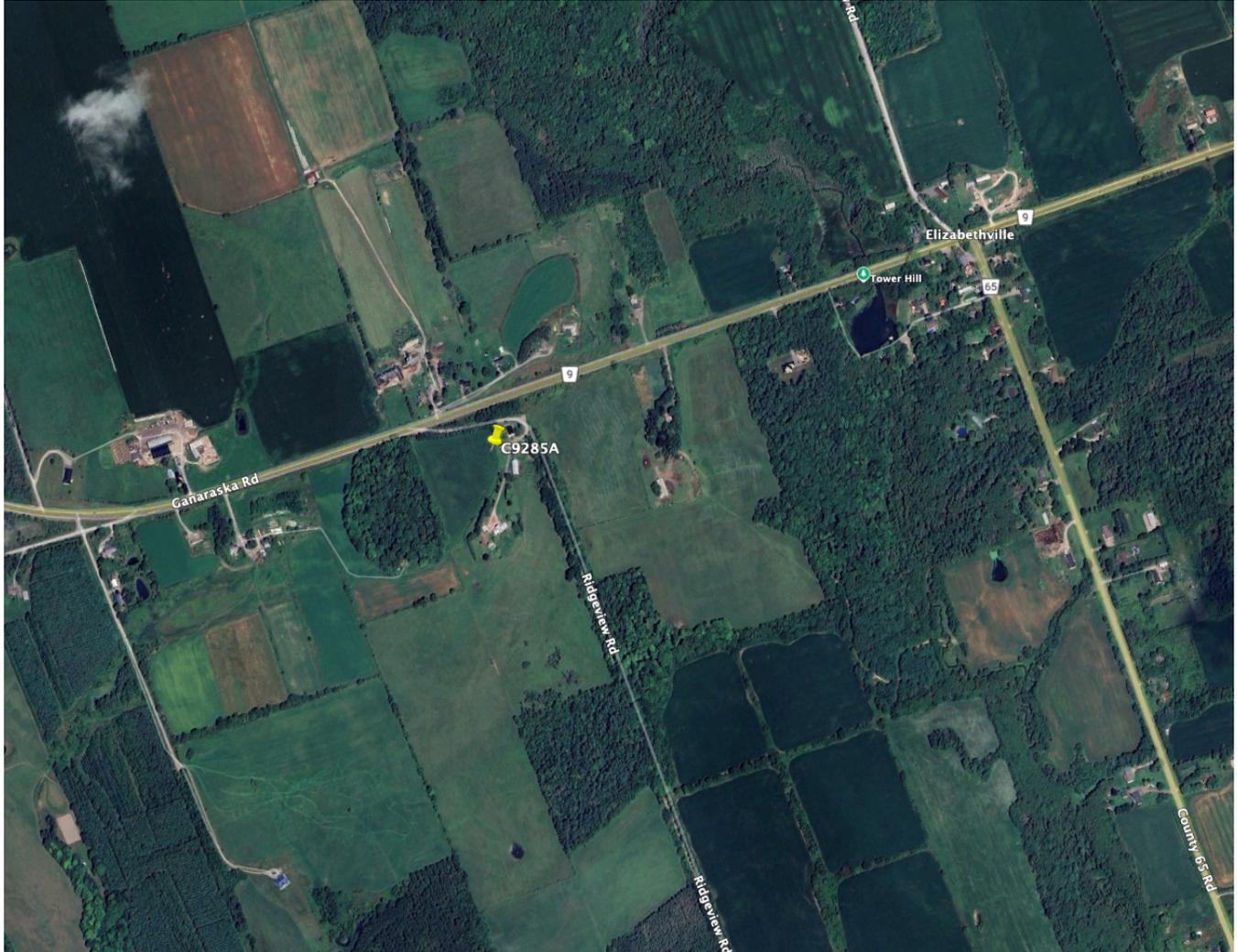
To identify a potential new tower location and design, Rogers examined the surrounding area, assessed the visibility of the structure and considered a possible structure design. Rogers evaluated the best location for a new facility using the following criteria:

a) Technical Requirements

The performance of a wireless network is dependent on the geographical location of its equipment, height of its antennas, line-of-sight requirement, the demand customers place on the network, as well as proximity to our users.

Please refer for the following page for an aerial outlining the site location (Figure 1).

Figure 1 – Aerial of the proposed location.



b) Coverage Objectives

Rogers’ Network Planning and Engineering departments have determined that the placement of this site will provide a dramatic improvement in service for the area and will meet the coverage objectives.

c) Evaluation of Existing Structures

When a part of a network requires improvement, the first step is to evaluate existing structures that are located within the specific geographical area offering the required height and that may be available to support new equipment or to use for co-location.

During the site selection process for this proposed installation, Rogers determined that no other existing infrastructure opportunity was available in our target area that was suitable for our network. The closest antenna system is ~3.6km from the proposed location, however it is a 62m self-support Bell Tower that does not offer sufficient height for Rogers’ purposes.

The map below (Figure 2) illustrates the proposed location in relation to the other existing structures assessed. Please also refer to the table provided below for site location and associated height – (Figure 3).

Figure 2 – Existing structures map

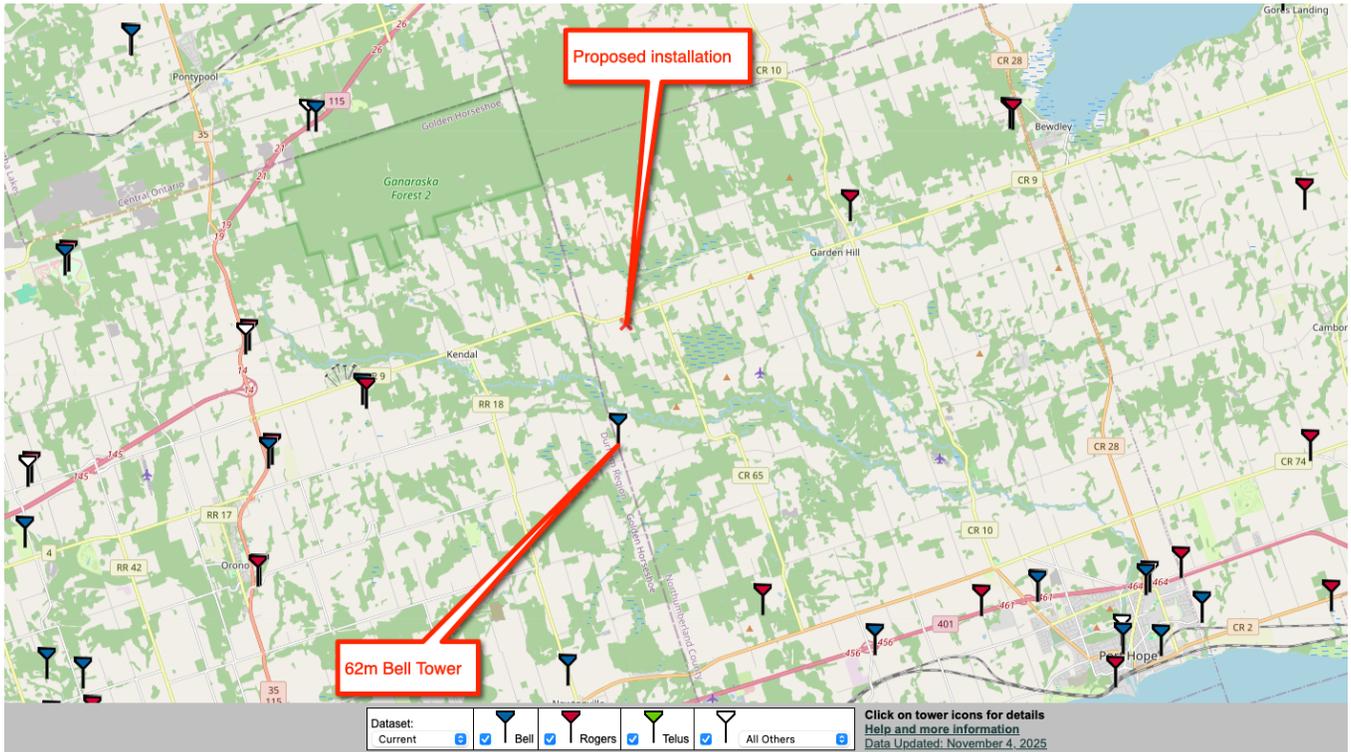


Figure 3 – Existing structures table

Existing Structure	Carrier	Height	Distance	Design	Reason for Unsuitability
A	Bell	62m	3.6km	Self-Support	Insufficient height, too far from search area; would result in coverage overlaps while still having coverage gaps.

d) Land-Use Considerations

Rogers’ site selection process is a balanced exercise that must meet Rogers’ network coverage objectives, respect local land-use constraints, listen to community concerns, while at the same time reflecting Rogers obligation to its customers to provide a high quality of service.

From a technical standpoint, the proposed site location is within the search radius and will provide optimal coverage to the desired area. The tower footprint will be using only a small fraction of the property owner’s large lot. Access to the site will be from an existing entrance to the property from Ridgeview Rd. and will not disturb the land-owner’s current use of the property or affect community traffic flow. The proposed site will be setback from Ridgeview Rd. by 44m to the north, 66m to the east and Ganaraska Rd. to the north by 80m.

Proposed Facility Location and Site Details

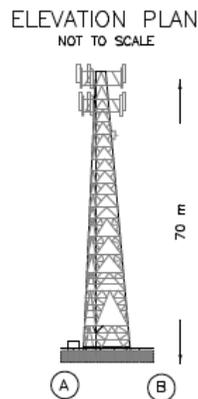
The site as proposed will be a 70m self-support tower installation.

Geographic coordinates: 44.039180-78.474331

All efforts have been made to minimize the number of cellular base station locations required throughout the targeted area and yet allow for a network design which can adequately provide wireless voice and data service to our existing and new customer base.

Please also refer below for a sample of the installation for your reference (Figure 4). An additional package of photo simulations is provided with this report. The viewscapes simulate the view of the proposed installation from different locations. The process of simulating the proposed facility into the existing conditions of the viewscapes was done by superimposing an image of the proposed structure on the photographs taken for those viewscapes.

Figure 4 – Sample image of proposed installation



Site Selection

Rogers strives to be sympathetic to the surrounding land-use features and takes all reasonable steps required by local land use authority to mitigate concerns with respect to planning and environmental matters. It is important to note that the selection of a site for a telecommunication antenna support structure does not occur randomly.

Among the factors considered are:

1. expected usage patterns of service and proximity to users
2. local topography and building types
3. interaction with existing and future sites
4. line of sight requirements for high quality communications
5. opportunities to use existing structures
6. availability of a willing property owner
7. the industry's commitment to high service standards and customer satisfaction.

The following are some of the considerations used by Rogers/EORN regarding the proposal:

- The design selected for this proposal is appropriate considering the area context and will best achieve our objectives, as well as provide for future co-location opportunities of other wireless service providers in an attempt to limit the number of structures in the area.
- This candidate replaces a site that had previously gone through the municipal consultation process that received significant opposition from the public and is considered a viable compromise that will achieve the coverage objectives while respecting the Municipality's position pertaining to preferred and discouraged locations.
- The installation will have no impact on the watershed or the wells, water quality or any water systems. No chemicals, pesticides or herbicides that could potentially have an adverse effect on the water systems will be contained on our structure or the associated walk-in radio equipment cabinet.
- During construction, precautions will be taken to minimize any disruption to the current use of the site and to the surrounding residents. Once site is in-service, there will be no noise associated with the daily operation of the installation.

The site will occupy a compound area of approximately 20mx20m, surrounded by 2.4m high chain link security fence. The compound also contains a walk-in equipment cabinet (WIC) containing radio equipment, backup battery power, maintenance tools, manuals and a first aid kit. The installation is equipped with a silent alarm system.

The site is designed to provide 3-sectored 700, 2100, MHz LTE and 5G services. It will also accommodate future TBD technologies.

Rogers considers this location and design ideal to provide superior coverage levels and service to Rogers' customers.

Municipal and Public Notification

Rogers has a strong history of consultation with municipalities and understands the importance of land-use protocols and transparency in consultation.

As the provisions of the *Ontario Planning Act* and other municipal by-laws and regulations do not apply to federal undertakings, wireless communication facilities are not required to obtain municipal permits. However, Section 4.1 of the CPC, states that the concerns and suggestions expressed by land-use authorities are important elements to be considered by proponents when installing or modifying antenna systems. ISED requires that consultation be undertaken with the appropriate land-use authorities to ensure those authorities are aware of significant structures within their boundaries and so that local land-use issues can be raised, while respecting the federal government's jurisdiction in the siting and operation of wireless voice and data systems.

The Municipality of Port Hope has developed its own protocol for establishing telecommunication facilities in the Municipality and Rogers will follow it.

Federal Requirements

In addition to the requirements for consultation with municipal authorities and the public, Rogers must also fulfill other important obligations, including the following:

Environmental Standards

ISED requires that the installation and modification of antenna systems be done in a manner that complies with appropriate environmental legislation, including the Impact Assessment Act (S.C. 2019, c. 28, s. 1).¹

Rogers attests that the radio antenna system described in this notification does not qualify as a Designated Project under the Impact Assessment Act and is excluded from environmental assessment under the Impact Assessment Act.

Transport Canada’s Aeronautical Obstruction Marking Requirements

Aerodrome safety is under the exclusive jurisdiction of NAV Canada and Transport Canada. An important obligation of Rogers’ installations is to comply with Transport Canada / NAV CANADA aeronautical safety requirements. Transport Canada performs an assessment of the proposal with respect to the potential hazard to air navigation and will notify Rogers of any painting and/or lighting requirements for the antenna system. Rogers has submitted the appropriate applications and expects this tower to require lighting. Rogers will notify the Municipality of the decision by Transport Canada once it is received.

Rogers Communications Inc. attests that the radio antenna system described in this notification package will comply with Transport Canada / NAV Canada aeronautical safety requirements. For additional detailed information, please consult Transport Canada².

Health Canada’s Safety Code 6 Compliance

Health Canada is responsible for research and investigation to determine and promulgate the health protection limits for Exposure to the RF electromagnetic energy. Accordingly, Health Canada has developed a guideline entitled “Limits of Human Exposure to Radiofrequency Electromagnetic Field in the Frequency Range from 3kHz to 300 GHz – Safety Code 6”.

The exposure limits specified in Safety Code 6 were established from the results of hundreds of studies over the past several decades where the effects of RF energy on biological organisms were examined. Radiocommunication, including technical aspects related to broadcasting, is under responsibility of the Ministry of Industry (Innovation, Science and Economic Development Canada), which has the power to establish standards, rules, policies and procedures. ISED, under this authority, has adopted Safety Code 6 for the protection of the general public. As such, ISED requires all proponents and operators to ensure that their installations and apparatus comply with the Safety Code 6 at all times.

Rogers Communications Inc. attests that the radio antenna system described in this notification package will at all times 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 co-locations and nearby installations within the local radio environment.

¹ <https://laws.justice.gc.ca/eng/acts/l-2.75/index.html>

² <https://tc.canada.ca/en/corporate-services/acts-regulations/list-regulations/canadian-aviation-regulations-sor-96-433/standards/standard-621-obstruction-marking-lighting-canadian-aviation-regulations-cars>

More information in the area of RF exposure and health is available on the Health Canada's website under Environmental and Workplace Health³ and Safety Code Health Canada's Radiofrequency Exposure Guidelines⁴.

Engineering Practices

Rogers attests that the radio antenna system as proposed for this site will be constructed in compliance with the National Building Code and The Canadian Standard Association and comply with good engineering practices including structural adequacy.

Innovation, Science and Economic Development Canada's Spectrum Management (ISED)

Please be advised that the approval of this site and its design is under the exclusive jurisdiction of the Government of Canada through ISED. For more information on ISED's public consultation guidelines including CPC-2-0-03⁵ contact your local ISED office at spectrumnod-spectredeno@ised-isde.gc.ca or at the below noted address:

Innovation, Science and Economic Development Canada Spectrum Management

Eastern Ontario District Office

2 Queen Street East, Sault Ste. Marie, ON, P6A 1Y3

Telephone: 1-855-465-6307

Fax: 705-941-4607

Email: spectrumnod-spectredeno@ised-isde.gc.ca

Web: https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf11435.html

General information relating to antenna systems is available on ISED's Spectrum Management and Telecommunications website⁶.

Public consultation obligations

Rogers Communications Inc. is committed to effective public consultation. The public will be invited to provide comments to Rogers about this proposal by mail, electronic mail or phone.

ISED's rules contain requirements for timely response to all questions, comments or concerns. We will acknowledge receipt of all communication within **14 days** and will provide a formal response to the Municipality and those members of the public who communicate to Rogers, within **60 days**. The members of the public who communicated with Rogers will then have **21 days** to review and reply to Rogers as a final response.

³<http://www.hc-sc.gc.ca/ewh-semt/radiation/cons/stations/index-eng.php>

⁴<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/safety-code-6-health-canada-radiofrequency-exposure-guidelines-environmental-workplace-health-health-canada.html>

⁵<http://www.ic.gc.ca/epic/site/smt-gst.nsf/en/sf08777e.html>

⁶<http://www.ic.gc.ca/epic/site/smt-gst.nsf/en/home>

Proponent's Contact Information - Rogers Communications Inc.

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Email: eric.belchamber@rogers.com

Conclusion

Reliable wireless communication services are a key element of economic development across Canada. It facilitates the growth of local economies by providing easy access to information, and connectivity for residents and businesses alike.

The infrastructure proposed is suitable for the development over the long term and protects public health and safety and is a powerful economic enabler.

In response to this growing demand for wireless services, Rogers has worked to find the most suitable location for a new telecommunications structure in efforts to provide improved wireless services in the area to its residents, businesses and the traveling public.

In addition to meeting consumer needs, technological upgrades are also critical to ensuring the accessibility of emergency services such as fire, police and ambulance. Wireless communications products and services, used daily by police, EMS, firefighters and other first responders, are an integral part of Canada's safety infrastructure.

Rogers feels that the proposed site is well located to provide improved wireless voice and data services in the targeted area. The proposed location is also situated and designed to have minimal impact on surrounding land uses.

Rogers looks forward to working with the Municipality of Port Hope to provide improved wireless services to the community.

Should you have any further questions or comments, please feel free to contact me via email at eric.belchamber@rogers.com, or via phone at (613) 220-5970.

Sincerely,

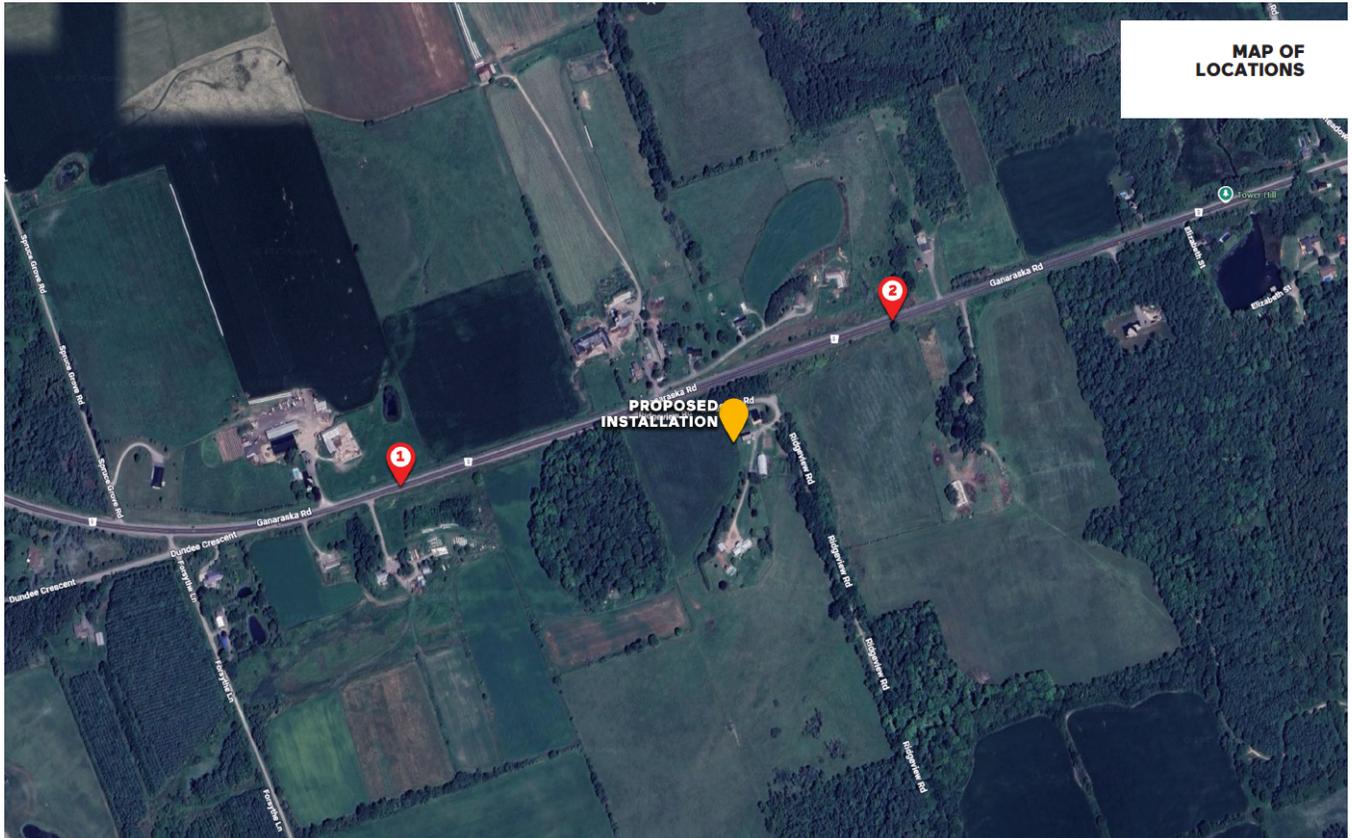
Eric Belchamber

APPENDIX 1

Public Consultation Package

*Attached separately

APPENDIX 3 Photo Simulations Package



MAP OF
LOCATIONS

C9285 - EVILLE II

SIMULATION 1



C9285 - EVILLE II

APPROXIMATE DISTANCE BETWEEN THE PROPOSED INSTALLATION AND THE VIEWPOINT : 445 METRES

SIMULATION 2



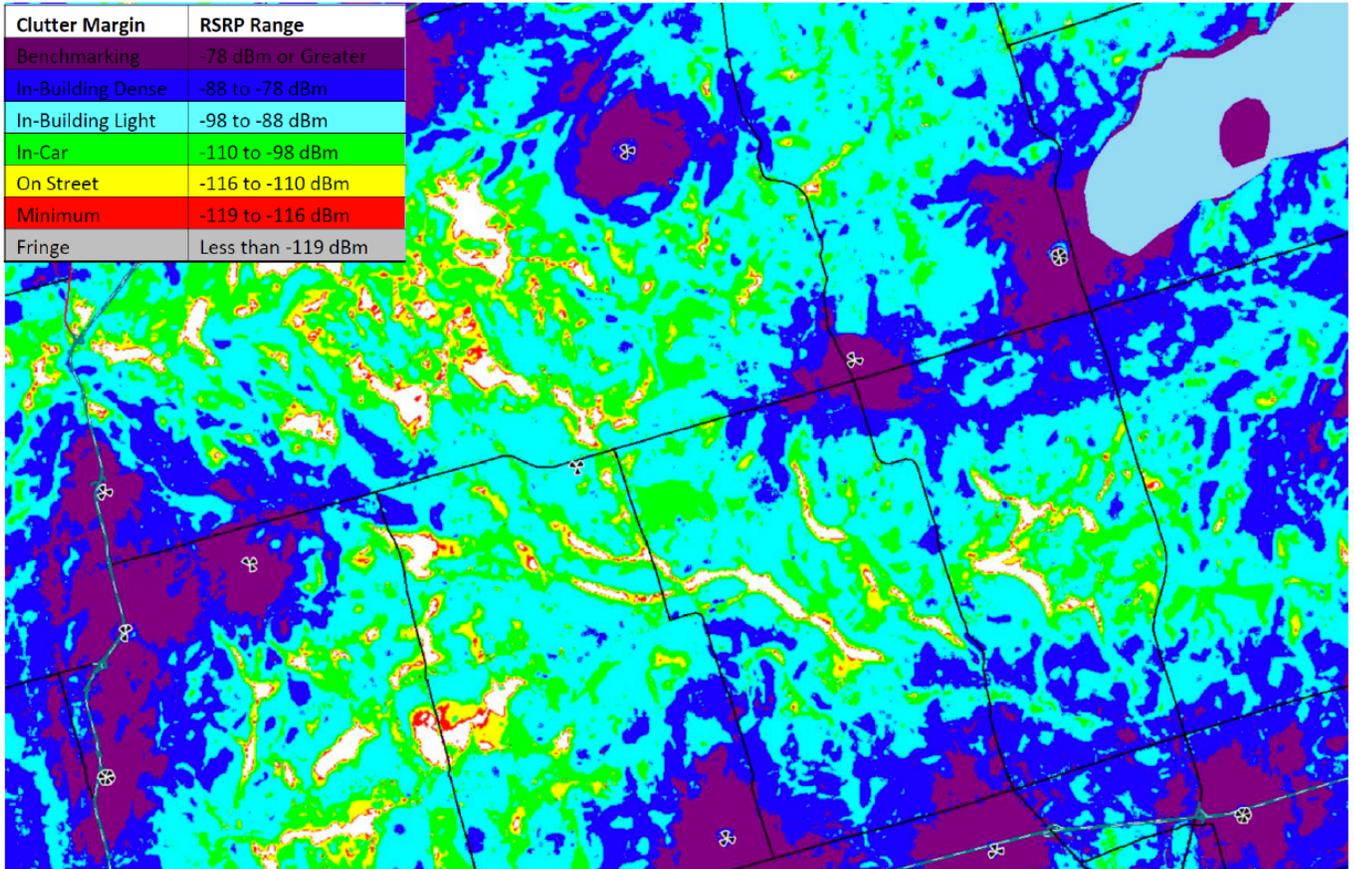
C9285 - EVILLE II

APPROXIMATE DISTANCE BETWEEN THE PROPOSED INSTALLATION AND THE VIEWPOINT : 269 METRES

APPENDIX 4 Coverage Plots

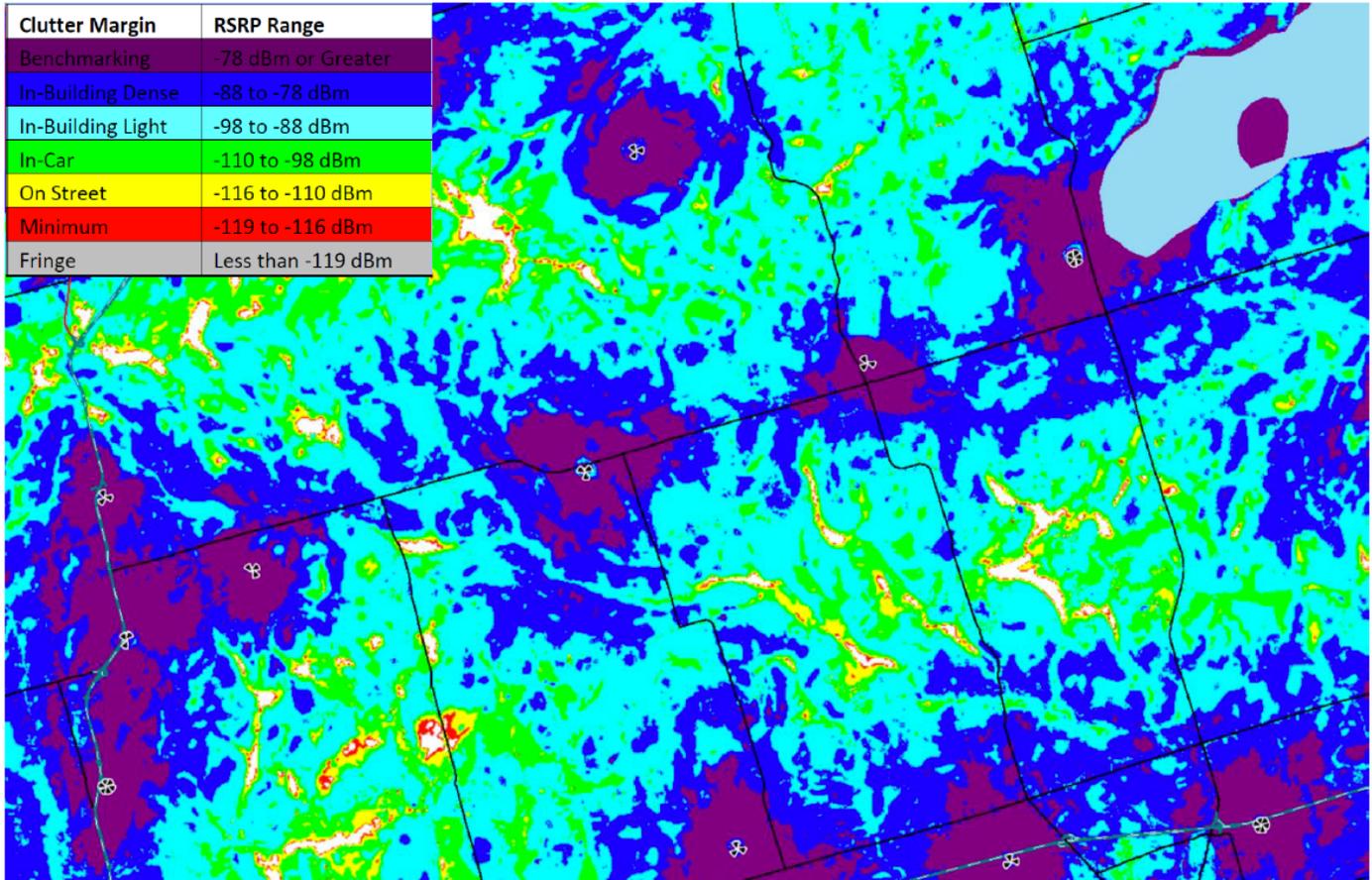


Existing LTE-700 RSRP Plots for C9285A (70m SST)



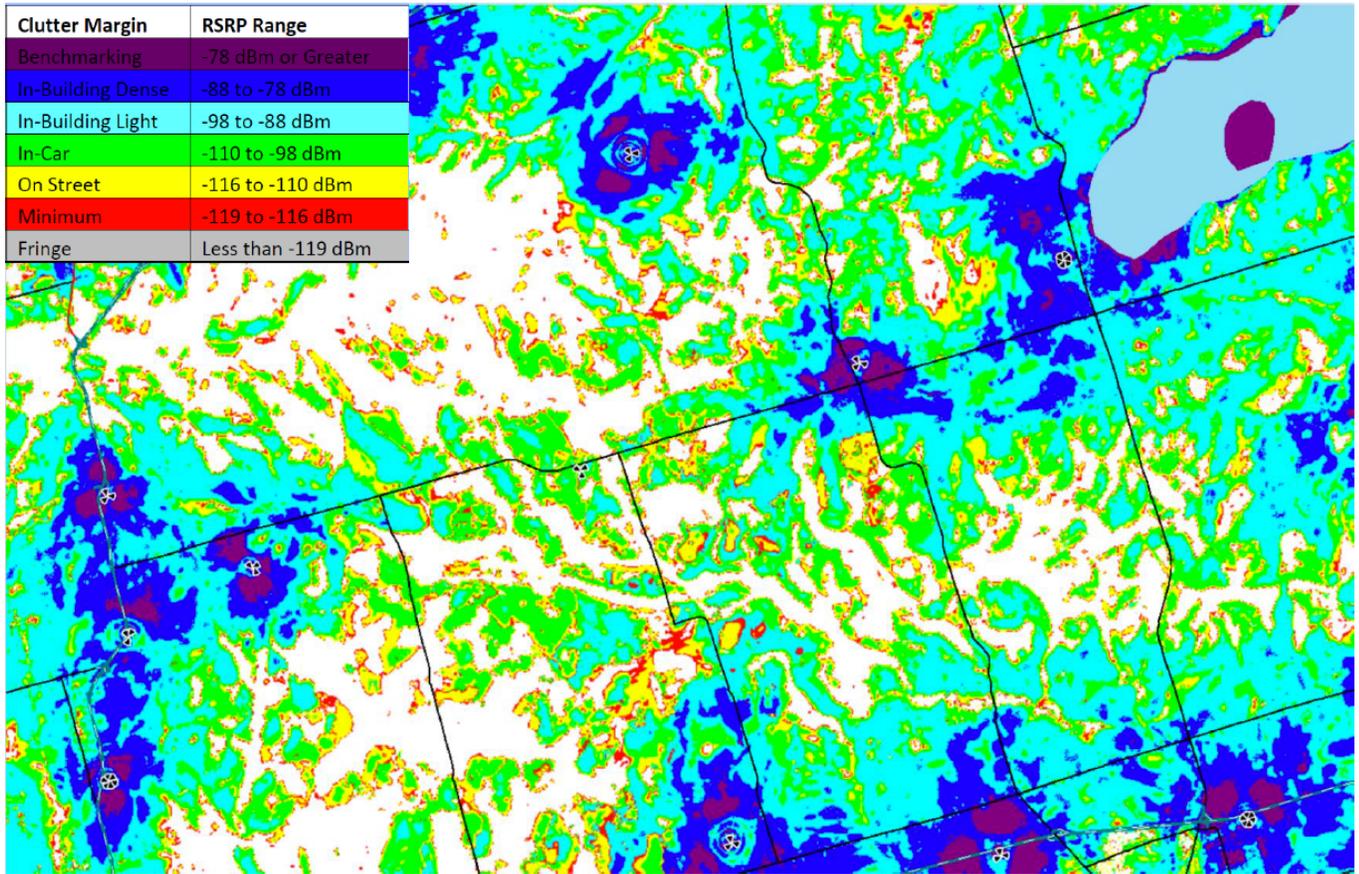
Purple & Blue	Excellent coverage
Light Blue	Good street and in-building level coverage
Green	Overall poor and unreliable in-building coverage
Yellow, Red & White	Unreliable to minimal coverage

After LTE-700 RSRP Plots for C9285A (70m SST)



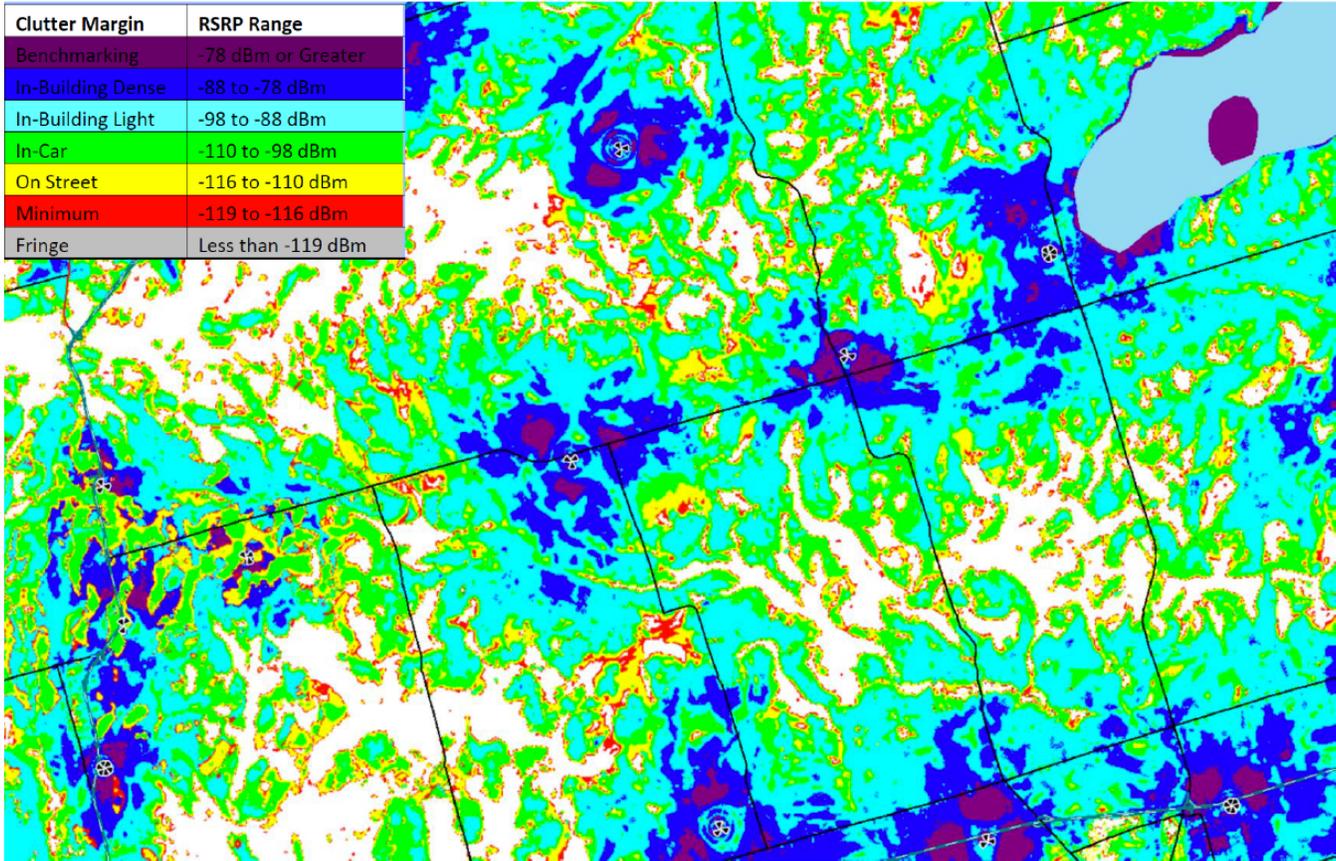
Purple & Blue	Excellent coverage
Light Blue	Good street and in-building level coverage
Green	Overall poor and unreliable in-building coverage
Yellow, Red & White	Unreliable to minimal coverage

Existing LTE-2100 RSRP Plots for C9285A (70m SST)



Purple & Blue	Excellent coverage
Light Blue	Good street and in-building level coverage
Green	Overall poor and unreliable in-building coverage
Yellow, Red & White	Unreliable to minimal coverage

After LTE-2100 RSRP Plots for C9285A (70m SST)



Purple & Blue	Excellent coverage
Light Blue	Good street and in-building level coverage
Green	Overall poor and unreliable in-building coverage
Yellow, Red & White	Unreliable to minimal coverage