



Telecommunication Facilities

Protocol for Establishing Telecommunication Facilities

January 2025



1. Introduction

The Federal Government, under Innovation, Science and Economic Development Canada (“ISED”), regulates telecommunication facilities. In circumstances as outlined in this document, ISED can request for local land-use consultation and for the local municipality to provide comments on a proposed telecommunication facility.

At the direction of the federal government, the City of Markham (the “City”) has created the *Protocol for Establishing Telecommunication Facilities* that includes the following four parts:

Part 1: When is this *Protocol* Applicable?

Part 2: City’s Design and Location Preferences

Part 3: Application Process

Part 4: Definitions

2. Purpose

This document outlines the City’s land-use consultation process when considering Telecommunication Facilities proposals. It guides proponents through a consistent and timely process that adequately engages and informs the public.

This document also outlines the City’s expectations and preferences regarding site selection and design decisions that minimize impacts on residents, and respects natural and cultural heritage and sensitive land uses.



3. Who Regulates Telecommunication Facilities?

a) The Federal Government Has Exclusive Jurisdiction

The *Radiocommunication Act* appoints ISEDC as the approval authority for the location and operation of Telecommunication Facilities across Canada. Provincial legislation, such as the *Planning Act*, including zoning by-laws and site plan controls are not applicable. However, ISEDC recognizes the importance of municipal consultation as part of the approval process and encourages proponents to consult with the local municipality for input and comments.

b) Some Additional Federal Legislation

In addition to the *Radiocommunication Act*, telecommunication service providers and tower operators must comply with all applicable federal regulations and guidelines including, but not limited to, the following:

- i) Health Canada's Safety Code 6 ("Safety Code 6") – Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 KHz to 300 GHz
- ii) The *Canadian Environmental Assessment Act, 2012*
- iii) NAV Canada and Transport Canada painting and lighting requirements for aeronautical safety

c) The City's Role in ISEDC's Land-Use Consultation Process

The City has a responsibility to fully participate in ISEDC's land-use consultation process, but has limited jurisdiction around the regulation of Telecommunication Facilities. The City maintains the following roles:

- i) communicate to proponents of location and aesthetic preferences, planning priorities, and local characteristics that are relevant to a proposed antenna system
- ii) advise the proponent on the public consultation requirements outlined in this document

The outcome of the consultation with the City is the issuance of a Letter of Concurrence or Non-Concurrence to the proponent and ISEDC.

NOTE: ISEDC is the final approval authority for Telecommunication Facilities.



Innovation, Science and
Economic Development Canada



Health
Canada

4. When is a Telecommunication Application Not Required?

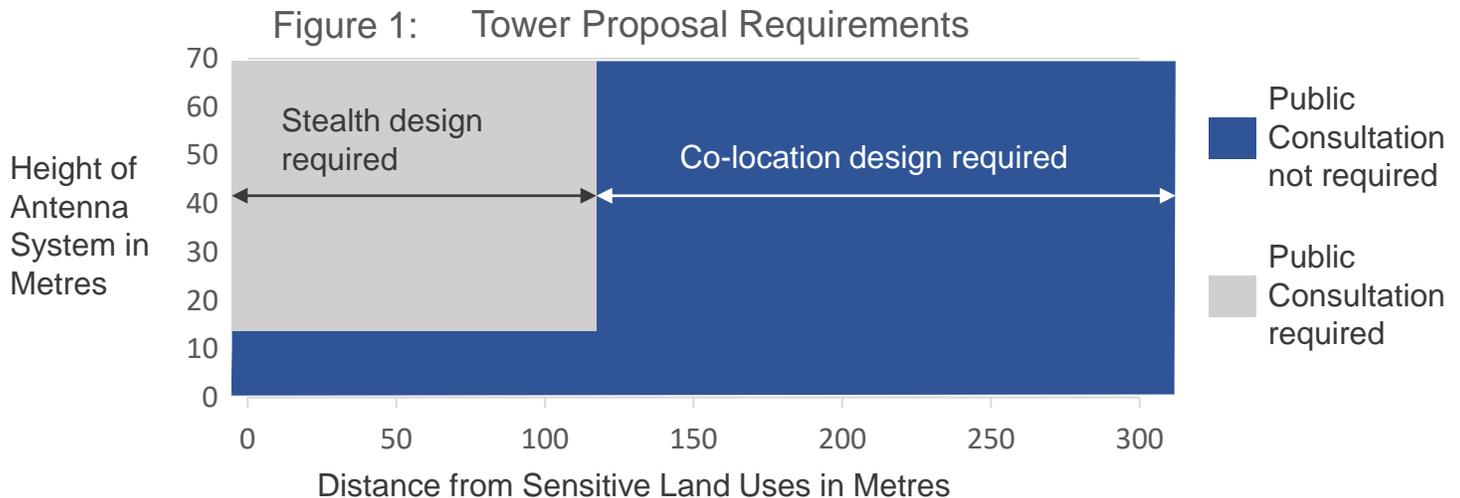
The City encourages proponents to contact the Planning and Urban Design Department if a Telecommunication Application is required. A Telecommunication Application is generally not required for the following:

- a) Maintenance of existing radio apparatus, including the antenna system, transmission line, mast, tower or other antenna-supporting structures
- b) Addition or modification of an antenna system (including improving the structural integrity of its integral mast to facilitate sharing), the transmission line, antenna, supporting structure or other radio apparatus to existing infrastructure, a building, water tower, provided the addition or modification does not result in an overall height increase above the existing structure of 25% of the original structure's height
- c) Maintenance of an antenna system's painting or lighting for compliance with Transport Canada's requirements
- d) Installation for a limited duration (typically not more than 3 months) of an antenna system that is used for a special event, or one that is used to support local, provincial, territorial or national emergency operations during the emergency and is removed within 3 months after the emergency or special event
- e) Co-location on an existing Telecommunication Tower
- f) Amateur radio Telecommunication Towers provided:
 - i) they are strictly for personal use
 - ii) the antenna boom or other appurtenance attached to the antenna are more than 1 metre from the property line
 - iv) no structure is placed in a front yard
 - v) the antenna and associated equipment are less than 10 metres in height

Despite the above-noted exemptions, proponents should also contact the City's Building Standards Department to confirm if building permits are required.

5. When is Public Consultation Required?

Public consultation through a Community Information Meeting (“CIM”) is required (see Figure 1).



A CIM is generally not required for facilities that meet the following criteria, subject to the discretion of the Planning and Urban Design Department:

- New antenna systems, including masts, towers or other antenna-supporting structure, with a height of 15 metres above ground level
- Telecommunication facilities within industrial, institutional and commercial zoned areas, where the base is located a minimum of 120 metres or a distance of 3 times the height of the proposed tower, whichever is greater, away from sensitive land use lands (e.g. residential, schools and daycares)
- The proposed height of the replacement tower does not exceed the height of the existing tower by more than 25%
- Public consultation notification area for proposed location of replacement tower and existing tower generally remains the same (i.e. Location of replacement tower does not generate the need to notify additional properties, agencies, etc.).

Despite the listed exemptions, circumstances may vary. Therefore, the following should also be taken into consideration when determining if a CIM is required:

- The facility’s physical dimensions, including the antenna, mast and tower, compared to the local surroundings
- The location of the proposed antenna system on the property and its proximity to neighbouring residents
- The likelihood of an area being a community-sensitive location
- Transport Canada marking and lighting requirements for the proposed structure

6. Where should Telecommunication Facilities be located?

Every effort shall be made to identify a location that minimizes the number of Telecommunication Facilities in an area by co-locating on existing towers and, wherever possible, on support structures including, but not limited to, water towers, light standards, traffic lights, and rooftops. Proponents shall also consider and maintain stealth techniques within sensitive land uses (such as residential, schools, daycares). In accordance with Figure 1, when selecting a location to meet network needs, the following must be considered, where possible:

- a) Maximize the distance from sensitive land uses and minimize any visual impacts
- b) Avoid significant natural features (topographical and vegetative), including hazard lands (floodplains and steep slopes)
- c) Avoid areas of topographical prominence to minimize any visual impacts
- d) Use existing support structures where appropriate and possible
- e) Ensure access requirements are sensitively integrated
- f) Avoid new facilities in Heritage Conservation Districts, Heritage Conservation Study Areas, and properties listed and designated under Part IV of the *Ontario Heritage Act*
- g) Integrate facilities with new buildings (engage service providers required early in the development process)
- h) Use of City-owned lands and/or facilities with a location and design acceptable to the City

Example of location to avoid:



Historic Main Street, Unionville

Example of preferred location:



Water Tower, Markham

7. What are the Design Criteria for Telecommunication Facilities?

Telecommunication Facilities shall be located and designed to minimize visual impacts. The type, size, location, height, width, configuration, and colour of a facility should be compatible and complementary with the surrounding area and be as unobtrusive as possible, where permitted by Transport Canada and/or NAV Canada. Designs that mimic other features found within the area context are encouraged, where appropriate. Camouflage designs and Public Art installations, such as the examples shown on the next page are highly encouraged.

The proponent shall be encouraged to consult with other telecommunication providers to co-locate or build facilities that can accommodate additional users, subject to compliance with ISEDC's requirements.

The following design guidelines should be considered when designing a new facility:

- a) Those located more than 120 metres from sensitive land uses (residential, schools and daycares) shall be designed with co-location capacity
- b) Those located within 120 metres of sensitive land uses (residential, schools and daycares) are not required to be co-locatable, but they shall use stealth design techniques including, but not limited to, camouflage within church steeples, clock towers, and flagpoles
- c) Public art installations are highly encouraged to mitigate any potential impacts particularly at prominent locations, community sensitive locations, and/or are of a size and scale that may negatively impact a local surrounding area
- d) Accessory equipment shall be buried underground or incorporated within buildings located on the same property, if possible. For outdoor above-grade equipment shelters, the City encourages landscape at the base to provide screening and enhance the appearance of the area. Landscaping or a lump sum cash payment in lieu of landscaping will be provided where appropriate, at the discretion of the City
- e) Colours for all components of the facility shall be neutral, non-reflective, and colour-matched, if possible
- f) No signs or other materials not directly related to the facility, or other on-site land uses, shall be permitted unless the proponent complies with the City's Sign By-law. A small plaque shall be provided at the base of the facility to identify the owner/operator and contact information



Streetlight Stealth Towers (9610 McCowan Avenue, City of Markham)



Shrouded Monopole (7828 Kennedy Road, City of Markham)



Flagpole Tower (City of Vaughan)

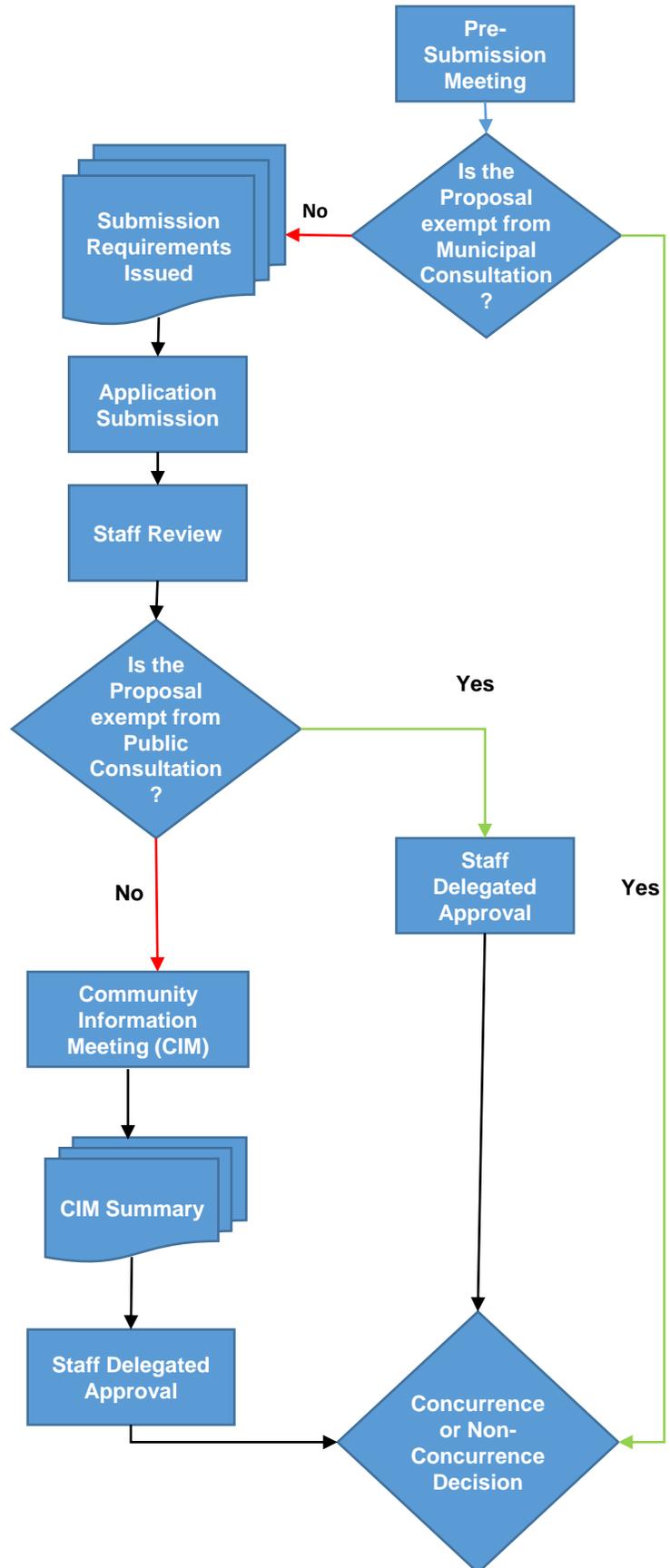
8. Application Review Process

All Proposals that are not exempt from municipal review, shall be required to submit a Telecommunication Application.

a) Required Pre-Submission Meeting

A preliminary meeting between the proponent and the City before a Telecommunication Application submission will:

- i) Determine if the Proposal is exempt from public consultation
- ii) Discuss the appropriateness of the location and/or co-location opportunities
- iii) Discuss preliminary issues and concerns
- iv) Review the process including possible requirements for public consultation
- v) Identify additional documents, drawings, information required as part of the application
- vi) Discuss application fees
- vii) Identify list of agencies for consultation
- viii) Consider possible appropriate locations on City-owned land or facilities that may be suitable for the proposed facility



b) Formal Submission Requirements

The following may be required as part of a Telecommunication Application:

- i) application form, standard submission requirements, and applicable processing fee
- ii) site selection/justification report outlining the following:
 - description of other alternatives considered such as co-location, use of existing support structures and other sites, including a map/inventory of all Telecommunication Facilities within search area
 - rationale for the proposed site as the preferred option
 - the purpose of the proposed Telecommunications Facility
 - existing and proposed landscaping (including an inventory of existing vegetation and proposed vegetation for screening purposes)
 - a site plan outlining the proposed location of the Telecommunication Facility and associated equipment with setbacks to existing lot lines and buildings and structures
 - colour photographs of the site with the proposed Telecommunication Facility superimposed
- iii) information required as per municipal building permit process (if required)
- iv) information required as per Conservation Authority permit process (if required)
- v) Environmental Impact Statement, if required, under the existing land use designation
- vi) confirmation of appropriate utility locations, such as gas companies and hydro providers, have been consulted
- vii) confirmation that municipalities and all other public authorities having an interest in the lands located within 120 metres or three times the height of the proposed Telecommunication Facility, whichever is greater, have been consulted
- viii) Grading Plan, or letter confirming that grading will not change.

c) Review Process

The City, when it receives a Telecommunication Application, shall:

- i) Circulate the application to relevant departments and external agencies, including the Local Ward Councillor, for information and comment with all comments forwarded to the proponent
- ii) Work with the proponent to address all reasonable and relevant concerns as identified through the review and/or public consultation process with required revisions submitted to the City

- iii) Provide guidance to the proponent regarding the public consultation process, including direction regarding the format to be used for the CIM notices, if required
- iv) Conclude the review process/municipal consultation process by issuing a Letter of Concurrence or Non-Concurrence. The proponent may be required to enter into an undertaking, acceptable to the City, which may include requirements including, but not limited to, the following:
 - The location and design of the Telecommunication Tower
 - In the case of a lease between the City and a proponent, the removal of all structures upon expiration of the lease
 - The provision of landscaping and tree preservation, including any required financial securities
 - Compliance with the requirements of ISEDC's CPC-2-0-17
 - In case of a lease between the City and a proponent, lease provisions acceptable to the City Solicitor

Submission and payment of an Application shall mark the commencement of the consultation and review process with the City, which typically takes 120 days to complete for proposals that require public consultation. The City endeavours to review and provide comments to the proponent within four to six weeks.

In cases not requiring public consultation, the City shall apply best efforts to finalize the review process within four to six weeks of receiving a written request from a proponent.

d) Additional Requirements for Proposals on City-Owned Lands/Facilities

Telecommunication facilities proposed on City-owned lands/facilities will require an internal municipal review and endorsement by the Development Services Committee. In addition, to the requirements listed in Section 8 b) above, lease agreements will be required to be executed as a final step in the approval process, to the satisfaction of the Chief Administrator Officer and the City Solicitor. Where public consultation is not required, as per this policy, the City shall apply best efforts to finalize the review process as soon as possible.

9. Public Consultation Process

If public consultation is required as per Section 5, the proponent is responsible for organizing and holding a Community Information Session (“CIM”).

a) Notification Package

i) Who does the Proponent notify (by regular mail)?

- all property owners within a radius 120 metres or three times the height of the proposed Telecommunication Facility, measured from the tower base or the outside perimeter of a supporting structure (i.e. the furthest point of the supporting mechanism such as a rooftop, building edge), whichever is greater
- the Clerk and Planning Director/Commissioner of adjacent municipalities within 120 metres or three times the height of the proposed Telecommunication Facility, whichever is greater
- area ratepayer associations
- the condominium corporation instead of individually assessed property owners within the condominium development
- the Chair of the City’s Development Services Committee, the Local Ward Councillor, the Director of Planning and Urban Design, and the City Clerk

ii) What does the Proponent include in the notification package?

- The municipal address of the proposed Telecommunication Facility and a map of the proposed location on the subject property
- A description of and rationale for the facility, and any accessory equipment, including its dimensions, colour, type, design
- Simulated images of the proposal
- An attestation that the public will be protected in compliance with Health Canada’s Safety Code 6, including combined effects within the local radio environment at all times
- Identification of areas accessible to the general public and the access/demarcation measures to control public access
- The project’s status under the *Canadian Environmental Assessment Act*
- 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

- An attestation that the installation will respect good engineering practices including structural adequacy
- Reference to the City's Telecommunication Facilities Policy (<https://www.markham.ca/telecommunication>)
- Notice that general information relating to antenna systems is available on ISEDC's Spectrum Management and Telecommunications website (<http://strategis.ic.gc.ca/antenna>)
- The time, location, and format (i.e. in-person or virtual) of the community information session
- Information on how to submit comments to the proponent, including the closing date for submission of comments (minimum of 30 days must be provided from receipt of notification)
- Contact information for a representative of the proponent, the City, and the local ISEDC office
- A statement that specifies the City's role as a commenting agency only and that any decision relating to the application will be made by ISEDC
- Confirmation of the above notification (to required recipients) must be provided to the City once the required notice has been provided

b) Community Information Meeting ("CIM")

The proponent is responsible for organizing and facilitating the CIM with the following parameters:

- i) A representative from the City and the Local Ward Councillor may attend for information purposes
- ii) The proponent shall distribute comment cards and prepare a record of all attendees and submitted comments
- iii) Following the CIM, the proponent shall provide a follow-up letter/memo addressed to the Director of Planning and Urban Design (copy to the Chair of Development Services Committee, the Local Ward Councillor, the City Clerk, and all those who submitted comments either at the CIM or written submission), indicating how all "reasonable and relevant" concerns raised have been addressed
- iv) Should any modification of the facility be agreed upon to address any reasonable and relevant concerns, revised plans or drawings (and any other required information) must be submitted to the City as soon as possible
- v) The proponent will also be required to provide a letter/memo to the City, advising how all reasonable and relevant concerns have been addressed

c) Additional Consultation with Interested Agencies

Proponents shall consult with interested agencies including, but not limited to, Transport Canada, NAV Canada, Ministry of Transportation, Toronto Region Conservation Authority, and York Region, if required. Proposals that require municipal consultation may be circulated to relevant outside agencies for comments as part of the City's review process.

10. Concluding Consultation

Once the review process has been completed, the following will take place:

a) Where Public Consultation is Not Required

The Director of Planning and Urban Design has the authority to provide a Letter of Concurrence or Non-Concurrence, subject to conditions if required, between the City and the proponent. This letter concludes the consultation process.

Where the City issues a Letter of Non-Concurrence associated with a proposed facility, the City's letter shall specify the reasons why.

b) Where Public Consultation is Required

The Proponent shall provide a letter/memo to the City following the CIM detailing how relevant comments and concerns have been addressed.

The Director of Planning and Urban Design has the authority to provide a Letter of Concurrence or Non-Concurrence, subject to conditions if required, between the City and the Proponent. This letter concludes the consultation process.

Where the City issues a Letter of Non-Concurrence associated with a proposed facility, the City's letter shall specify the reasons why.

For a Telecommunication Facility located on City-owned lands and/or facilities, lease agreements will be required to be executed as a final step in the municipal approval process, to the satisfaction of the Chief Administrator Officer and the City Solicitor.

11. Definitions

Co-location – the sharing of a Telecommunication Tower (or other support structure) by two or more proponents

Telecommunication Facility – the components (individually or combined) required to provide wireless communication service such as transmitters, receivers, antennae, signaling and control equipment, support structures and accessory equipment.

Proponent – anyone planning to install or modify a telecommunication facility such as Personal Communications Services (PCS) and cellular, fixed wireless, broadcasting, land-mobile, license-exempt and amateur radio operators.

Telecommunication Tower – all types of towers, including but not limited to, a monopole, tripole, lattice tower, guyed tower, self-support tower, pole, mast, or other support structure, which is used to support one antenna or more and which may be located at ground level or on the roof of a building.

Reasonable and Relevant Concerns – relate to the requirements of ISEDC’s “Client Procedures Circular” (“[CPC 2-0-03](#)”)(July 2022) and to the particular amenities or important characteristics of the area surrounding the proposed telecommunication facility. Examples of reasonable and relevant concerns, as per ISEDC’s CPC 2-0-03, are:

- Why is the use of an existing antenna system or structure not possible?
- Why is an alternate site not possible?
- What is the proponent doing to ensure that the antenna system is not accessible to the general public?
- How is the proponent trying to integrate the antenna into the local surroundings?
- What options are available to satisfy aeronautical obstruction marking requirements at the proposed site?
- What are steps the proponent took to ensure compliance with the general requirements of this document including the Canadian Environmental Assessment Act (CEAA), Safety Code 6, etc.?

Examples of concerns that are not reasonable and relevant, as per ISEDC’s CPC 2-0-03, are:

- Disputes with members of the public relating to the proponent’s service, but unrelated to antenna installations;
- Potential effects that a proposed telecommunication facility will have on property values or municipal taxes;
- Questions whether the *Radiocommunication Act*, CPC-2-0-03, Safety Code 6, locally established by-laws, other legislation, procedures or processes are valid or should be reformed in some manner.