



# Schedule C: Guidelines, Part

## I

### Glossary and Scope of Inquiry

#### **IMPORTANT:**

*2021 May 10*

- For the most recent version, go to [www.calgary.ca/wirelessinfrastructure](http://www.calgary.ca/wirelessinfrastructure)
- This schedule is intended to be read with the Master Licence Agreement for Wireless Infrastructure.
- All words that are capitalized are defined within the body of the Master Licence Agreement for Wireless Infrastructure.
- All words that are italicized and capitalized are defined within the glossary of this schedule.

# Contents

Introduction ..... 2

    Audience ..... 3

Roles and contact information ..... 3

Glossary ..... 4

Fair and equal access to Property ..... 6

Property classification system ..... 6

Scope of each inquiry ..... 7

WID File Number ..... 7

Invoicing and Payment ..... 7

    Licence Fees ..... 7

    Quarterly Cost Recovery ..... 8

    Annual Cost Recovery ..... 8

Version Updates	Description of Change
2021 May 10	Addition: IFC Definition. Amendment: IFR Definition

# Introduction

## Audience

This document has been written with the following audiences in mind:

- Approved WSP.
- Case Steward(s), Asset Stewards, Asset Inspectors and other City staff representing business units that may enable or are impacted by the deployment of wireless infrastructure.

**IMPORTANT:** Approvals are limited to the deployment of wireless infrastructure. *WID* site approval does not constitute compliance with any other City permits. These include but are not limited to: City-owned fibre, building permits; utility alignment permits; antenna permits; development permits; traffic hoarding permits; traffic accommodation; electrical permits; and excavation permits. the Approved is also responsible for complying with all applicable legislation.

## Roles and contact information

The City and each Approved WSP shall assign primary contacts. The following information shall be provided and updated on a timely basis. This information shall be provided to the *WID* Coordinator by the Approved WSP no later than January 15 of each year. Information may be provided more frequently if required.

### Wireless Infrastructure Deployment Coordinator

The purpose of this role is to:

- Ensure the integrity, coordination and continual improvement of the processes.
- Maintain the quality of the process enablers (e.g. forms, policies, guidelines, systems, people, vendors, process design, etc.).

Key responsibilities include managing access to *WID* Online and documents, managing relationships with stakeholders, managing changes to system forms, templates, guidelines, standards, and process design, and reporting to governance bodies.

### Case Steward

The purpose of this role is to:

- Coordinate and manage the Approved WSPs' requests. This includes intake, flow and timelines.
- Provide a main point of contact for the Approved WSP.

Key responsibilities include intaking site feasibility inquiries, intaking submissions to access site, intaking Site Licence requests, answering inquiries, and managing timelines.

## Asset Steward

The purpose of this role is to:

- Ensure that the wireless deployments meet all requirements for a specified Asset Category.
- Provide expertise for a specific Asset Category.

Key responsibilities include reviewing site feasibility, ensuring a design meets requirements, obtaining necessary feedback, and approving access to Properties for deployment, maintenance, and replacement.

## Asset Inspector

The purpose of this role is to:

- Ensure that installation/construction follows the approved design and meets all requirements for a specific Asset Category.
- Ensure sites are remediated appropriately when required.
- Key responsibilities include reviewing As-Built Drawings or post-construction drawings and inspecting for compliance.

Name	Role	Contact Information
Michael Green	SLP Asset Steward	<a href="mailto:streetlighting@calgary.ca">streetlighting@calgary.ca</a>
Michael Green	SLP Asset Inspector	<a href="mailto:streetlighting@calgary.ca">streetlighting@calgary.ca</a>
Shelly Ohama	WID Coordinator	<a href="mailto:WID@calgary.ca">WID@calgary.ca</a>
David Weisgerber	Case Steward	<a href="mailto:WID@calgary.ca">WID@calgary.ca</a>

## Glossary

**Approved WSP:** for the purposes of the Guidelines (Schedule C), the definition of Approved WSP is expanded to include the Approved WSP's authorized agents, prequalified vendors or contractors (prequalifications are based on The City's standards).

**Asset Steward:** refers to a Person designated by The City, or a department within The City as having expertise with a specific Asset Category. This department or Person is involved in responding to site feasibility inquiries, reviewing design submissions, approving Site Licences and managing The City's role in the maintenance, replacement, removal and relocation of wireless infrastructure.

**Asset Inspector:** refers to a Person designated by The City, or a department within The City to inspect installation and construction, compliance with the As-Built Drawings and to determine any remediation requirements following construction.

**Case Steward:** refers to a Person designated by The City or a department within The City to coordinate and manage the Approved WSPs' requests and act as the main point of contact for the Approved WSP.

**CROWM:** refers to the Calgary Rights of Way Management portal.

**Distributed Antenna System (DAS):** refers to a network of antennas placed in a specified location. Power and fibre are

required for each antenna in the system. Neutral hosting is possible with a Distributed Antenna System (DAS).

*EFT*: refers to electronic fund transfer.

*FM Building*: refers to a building stewarded by the Facility Management business unit within The City.

*FOSC*: refers to fibre optic splice closures.

*Heritage Resource*: refers to features including historic buildings, bridges, engineering works and other structures; cultural landscapes such as historic parks, gardens or streetscapes, culturally significant areas, indigenous traditional use areas, and sites with archaeological or paleontological resources. These can be managed by municipal, provincial or federal authorities.

*IFC*: refers to issued for construction drawings which must be authenticated by a professional engineer (i) in good standing with the Association of Professional Engineers and Geoscientists of Alberta, and (ii) have permit to practice.

*IFR*: refers to issued for review drawings which must be authenticated by a professional engineer (i) in good standing with the Association of Professional Engineers and Geoscientists of Alberta, and (ii) have permit to practice.

*In-building Solution*: an in-building cellular enhancement system, commonly implemented in conjunction with a distributed antenna system (DAS) or an internal *Small Cell*, is a telecommunications solution which is used to extend and distribute the cellular signal of a given mobile network operator within a building.

*JUMP*: refers to the joint utility mapping partnership.

*KMZ*: refers to keyhole markup language zipped.

*Like-for-Like Replacement*: refers to replacing existing, approved Equipment with Equipment that is identical to the most recently approved As-Built Drawings including but not limited to power requirements and structural loading requirements.

*Macro Cell*: refers to a high power cellular base station used by the Approved WSP to provide cellular network coverage to a large area, ranging from a few kilometres up to tens of kilometres. A macro cell panel is, on average, one to five metres tall. Macro cell base stations have power outputs of typically tens of watts and are found on towers and rooftops. A macro site may include multiple antennas, radios, equipment cabinets, support masks/structures, power, back haul (fibre or micro wave).

*Macro Street Light Pole*: refers to a type of Macro Cell installation. May also be referred to as a Pole top wireless antenna or a mini macro. A macro street light pole is a custom-designed street light pole with a telecommunication antenna mounted on top. These poles are installed in place of an existing street light pole and feature a customized foundation and single or dual cabinets. Generally, these poles are either 18.9 metres or 23.4 metres tall from the base to the top of the antenna.

*Macro Tower*: refers to type of *Macro Cell* installation; a ground mounted monopole, tri-pole or lattice work structure upon which antennas are attached. Guyed macro towers in Calgary are generally 15 to 65 metres tall but can be upwards of 75 to 90 metres in some cases. A tower can be up to 107 metres. Generally, there shall be three layers on a macro tower with three to four antennas per layer and room for an additional two or more layers of poles. In the case of a co-build, there may be up to 12 or more layers of antennas.

*Not Like-For-Like Replacement*: refers to replacing an existing approved attachment Equipment that is not identical to most recently approved As-Built Drawings including but not limited to power requirements and structural loading requirements.

*PICO Cell*: refers to a type of *Small Cell* mounted in the interior of a building that integrates radio and antenna equipment and forms a network. Neutral hosting is not possible with a PICO Cell.

*Rooftop Macro*: a type of *Macro Cell* installation, refers to the same macro equipment as a macro tower but affixed to a building. A rooftop macro may be mounted: (1) as a

tripod - ballast mounted on side of building; (2) on top of the building; or (3) on the side of building.

*SLP*: refers to Street Light Pole.

*Small Cell*: also known as a micro cell, or small deployment. The term small cell refers to a low-powered, cellular radio access node that the Approved WSP attaches to poles, building, etc. to improve cellular network coverage, increase capacity, speed and improve the overall user experience. Small Cells are, on average, 30 cm by 30 cm, have a typical range of 10 to 500 metres, and are generally attached at lower elevations averaging 4.5 metres and greater. Individual small cells require power, but do not require a cabinet. A small cell consists of integrated radio and antenna equipment that can be attached to an existing structure.

*TCP*: Traffic Control & Parking

*Wireless*: refers to the deployment and optimization of a wireless network in a community or city by utilizing existing infrastructure or building new structures to support the equipment necessary to propagate wireless bandwidth. Three basic types of wireless facilities are *Macro Cell*, *Small Cell* and *In-building Solution*. All types of wireless facilities are necessary to deploy an effective wireless network that will transmit and receive signals to each wireless user's device.

*Planned Maintenance*: refers to activities related to testing, repairing, and caring for the Equipment.

*Wireless Evolution*: refers to the deployment of bandwidth as provided by the Canadian Federal Government (ISDE) which is specific for each Approved WSP provider and will have greater capabilities from one generation to the next. An example of wireless evolution is the deployment of 5G from 4G, introducing *Small Cells* as a necessary requirement to add bandwidth and alleviate capacity on the network.

*WID*: Wireless Infrastructure Deployment

## Fair and equal access to Property

Fair and equal access to Property was stated as a key priority by the Approved WSPs during the process redesign work (2018/2019). Within the context of *WID*, fair access means one Approved WSP may not monopolize all Property in a given geographic area.

## Property classification system

Each available Property shall be classified using one of the following codes:

1. **Available**
2. **Conditionally available**
3. **Unavailable**
4. **Occupied**: additional antenna may not be deployed on this Property.
5. **Under review**: request under review

## Scope of each inquiry

All Property must be within a five (5) kilometre diameter and may span across one or more geographic communities.

A maximum of twenty (20) sites may be included per inquiry. Each inquiry may include one (1) or more Property type from the following:

- A maximum of twenty (20) Designated Street Light Poles for the deployment of one or more small cell antenna.
- A maximum of one (1) *FM Building*. First preference and one (1) alternative may be provided.
- A maximum of one (1) parcel of land for a macro tower. First preference and two (2) alternatives may be provided.
- A maximum of one (2) macro street light pole. First preference and one (1) alternative may be provided.

## WID File Number

Each inquiry and site within that inquiry shall be assigned a file number which will act as the unique identifier. This unique identifier shall follow the inquiry and site for the entire lifecycle.

For example, Unique ID# 001 - 01 -SLP represents the following:

#001	01	SLP
↑	↑	↑
Inquiry #	Site#	Property Type (i.e. SLP, FM, LFT)

## Invoicing and Payment

### Licence Fees

- An invoice will not be issued by The City for Licence Fees.
- The Approved WSP will submit one EFT payment per site.
- The following reference material will be provided with each payment:
  1. *WID* file number (e.g. 001-01-SLP)
  2. Any other information The City may require, acting reasonably
- The first payment is due on the first day of the month following The City's issuance of the site licence.

## Quarterly Cost Recovery

- Each *Asset Steward* and the *Case Steward* will submit to the Approved WSP an invoice for cost recovery fees incurred for the quarter prior, no later than the month of January, April, July, and October of each year.
- Invoices will be subject to payment terms.
- The following reference material will be provided with each payment:

Reference Item	Case Steward	Asset Steward
Name of business unit	✓	✓
WID file number (e.g. 001-01-SLP)	✓	✓
Process (e.g. Process 2, Site Feasibility) by WID file number.	✓	✓
Name and amount for each fee charge (e.g. inspection, 3 hours at \$150/hour) by WID file number	✗	✓

## Annual Cost Recovery

- Invoices will be submitted to the Approved WSP each year in January.
- The following reference material will be provided with each payment:
  1. Name of business unit; and
  2. Description of fee.