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METRO VANCOUVER

# TELECOM VALUATION:

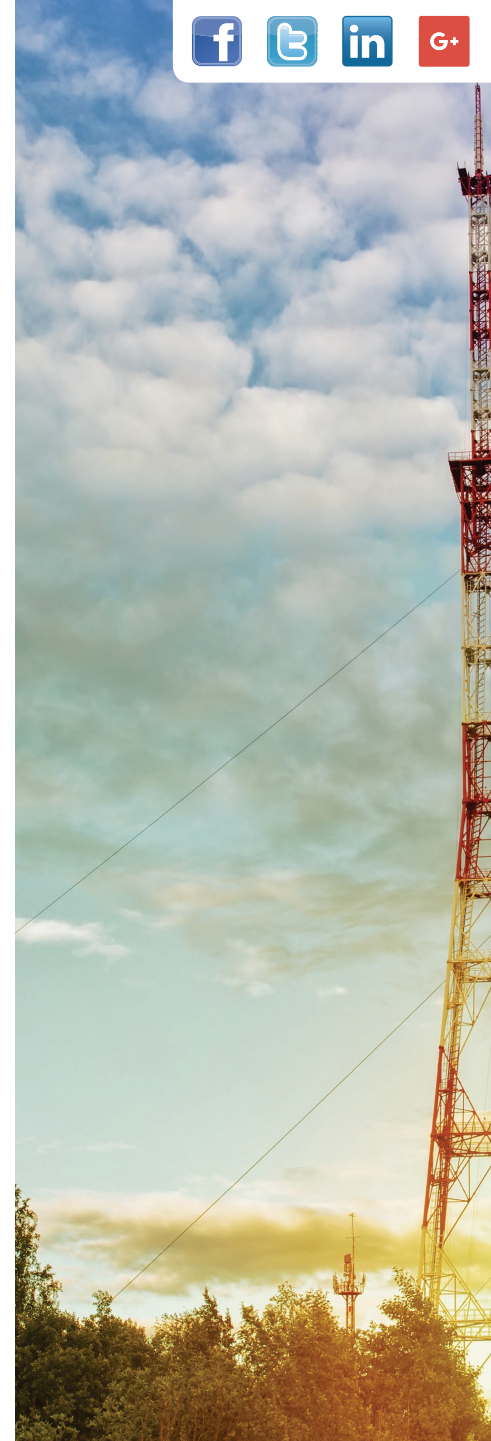
*Metro Vancouver's experience*

## BACKGROUND

Metro Vancouver (MV) is a partnership of 21 municipalities, one Electoral Area and one Treaty First Nation that collaboratively plans for and delivers regional-scale services in the Lower Mainland region of British Columbia. Its core services are drinking water, wastewater treatment and solid waste management. MV also regulates air quality, plans for urban growth, manages a regional parks system and provides affordable housing. In carrying out these responsibilities, MV owns significant amounts of property throughout the region that was acquired at different times, in different ways, and with different pre-existing tenures to other parties.

Throughout the region, MV currently has approximately 24 license and lease agreements with various telecom operators in the telephone, television and mobile communication markets. Most of the existing agreements had initial 5-year terms that included additional extension options. In 2011, many of these agreements were either about to expire or had already expired. Due to the aging agreements and the rapid development of new technologies, MV sought professional advice on how best to move forward with its telecom properties by upgrading the licensing agreements to better reflect current industry, property and economic conditions.

This advice was sought from a number of companies with knowledge and experience in this very specialized industry, with MV ultimately settling upon the services of Planetnetworks Consulting™ Corporation, an independent information technology and networks solution consultant. The company was given instructions to inspect 10 key MV telecom sites, conduct an inventory of each site, report on what equipment or sub-tenancies were allowable under the agreements compared to what is actually on-site, provide pricing model recommendations, and comment on the existing license agreements.



## "REAL ESTATE APPRAISERS DO HAVE A SIGNIFICANT ROLE TO PLAY IN VALUING THE LAND OR BUILDING COMPONENT OF THE SITES."

### EVOLUTIONS IN THE INDUSTRY

Upon completing the inspections, Planetnetworks reported that there had been considerable change in the industry over the past 30 years, including a shift to wireless technology and a massive consolidation to a limited number of players. It was also determined that, during the tenure of most license agreements, company ownership frequently changed. For example, several small operator-owned cable companies around Vancouver became Rogers Cable TV in the early 1990s and then subsequently became Shaw.

With such significant change in the telecom industry, it gave rise to 'real estate cowboys' whose motive was to get the best deals possible for the carriers. These license or lease agreements included exclusive control of rooftops, leases with no caps as to the number of antennas (known as 'antenna creep'), no restrictions for sub-tenants, 15-year initial terms, and lower lease/license amounts than what could realistically have been charged. That scenario has changed considerably with the terms stipulated in MV's newly negotiated licensing agreements being very different from those in the past (see Graph 1 – New Terms vs Old Terms).

During Planetnetwork's review, it was also determined that the market was definitely moving toward a 'cost-per-antenna' pricing model in order to establish rental amounts. Because towers have limited capacities and methods to reduce the number of antennas are necessary to ensure structural integrity, the large carriers are operating service across multiple bands and antenna manufacturers are moving to 'dual' and 'tri' band antennas which carry multiple frequency assignments and radiate significantly increased power.

On the technology front, it was noted that cellular operators are continuously adjusting and realigning antennas, adding antennas, and adding microwave capabilities to each site in order to backhaul more traffic. The bottom line is that the cell sites are always changing.

### TYPES OF SITES

The sites that are utilized by telecom operators basically fall into four categories.

**Free-standing towers** are typically less than 50m in height and require small plots of land usually around 250 square metres. They are the most expensive to build at approximately \$13,000 per metre of height.

**Guyed towers** sit on a pivot and are held in place by guy wires. They are the tallest towers and can be 100m or more in height. At approximately \$10,000 per square metre, they are less expensive to build than free-standing towers, however, they require large tracts of land to accommodate the anchor points. The taller the tower, the greater the land required for the anchor points.

**Monopoles** are effectively giant lamp standards that are typically 20-30 metres in height. They are the least expensive of the free-standing towers with construction costing approximately \$7,800 per metre of height. Similar to the free-standing towers, they usually require only about 250 square metres of land.

**Rooftop sites** are the most prevalent type of cell sites in Vancouver and are the most abundant form of radio site being developed each year. They are mounted to the parapet surrounding a rooftop or onto a penthouse on the rooftop. Safety is an issue with the rooftop sites as workers such as HVAC contractors, painters, roofers, window washers, etc. usually have no training in the hazards of radio frequency equipment.







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## OTHER CONSIDERATIONS

Telecom sites require a large capital expenditure that typically results in a 30-year amortization. Due to the public consultation process, towers are exceedingly difficult to build in metro regions such as Vancouver. However, once they are built, they become an integral part of the telecom network and are almost impossible to relocate. The towers and guy anchor points require regular structural audits and they also require reinforcing as antennas are added to the load.

As for paperwork, most landlords, including MV, clearly stipulate that licensees are required to have all the necessary permits. However, while most telecom operators apply for permits when they are first developing a site, they rarely apply for city permits for any changes or additions. This situation usually occurs because the telecom operators are federally regulated and they tend to feel that they do not fall under any jurisdictional requirements of local cities or municipalities. One extreme example of this discovered by MV was a case where the original licensing agreement for a telecom site allowed for up to 10 sub-tenancies, but, upon inspection, it was determined that the site actually had 80.

When it comes to safety, Health Canada has developed and implemented a Code 6 safety regulation stipulating the maximum radiation levels that are acceptable for the general public and for radio frequency (RF) workers. The general public covers everyone who is not trained in the hazards of RF, while

RF workers are expected to be trained in the potential hazards and to understand the precautions that need to be taken when working near telecom antennas. In addition to 'cording off' certain sites, red signs indicate exposure levels greater than allowable limits for RF workers and orange signs indicate higher than allowable limits for the general public.

## VALUATION PROCEDURES – PAST AND PRESENT

**Past** – Typically in the past, rents for telecom sites were a prescribed yearly amount (often simply an amount of what the telecom was prepared to pay) and, upon renewal/rent review periods, either had fixed increases, CPI increases or perhaps no provision for increases. Often, upon renewal periods, the licenses/leases would simply be renewed based on the provisions of the agreement. If a market estimate was required, an appraiser could be engaged. The telecom company would generally supply 'comparable sites rentals' for the appraiser to consider and utilize to estimate a fair market rent. Some appraisers would have taken this at face value, likely not having any idea or understanding of the amount and type of equipment being utilized at each site.

**Present** – While determining a value for telecom equipment and the subsequent rents that should be charged for this equipment is best left to individuals and companies specializing in this very unique industry, real estate appraisers do have a significant role to play in valuing the land or building component of the sites.

In conducting a valuation of telecom property, an appraiser should follow several steps. First, it is necessary to determine the type and location of the infrastructure. For example, is the structure a free-standing tower on land, a guyed tower on land, a monopole on land, rooftop equipment, or equipment on utility towers owned by other entities, such as BC Hydro. It is also important to determine if the proper permits are in place to comply with the property's allowable usage. Next, the land rental for the property must be estimated by determining the use under which you would value this type of property. Since it is unlikely that any land rent comparisons can be found, the appraiser will likely have to estimate the market value of the land and apply an appropriate yield rate. Being sure to add in access road rent if applicable, the land rent can then be estimated.

For free-standing towers, guyed towers or monopoles, it is necessary to determine who owns the tower or monopole and whether or not it is managed by another entity. The appraiser then factors in the price of equipment, a charge per square meter of land or rooftop being used, a charge per square meter for any equipment room being utilized within the building, a 50% revenue share of sub-tenancies/equipment, and any fee for access roads, if any are required. In cases where it is the telecom company's own equipment on its own tower, there is a 50% revenue share charge based on the amount and type of equipment. It is highly recommended the appraiser work collaboratively with the telecom consultant throughout this process in order to verify correctness on the amount and type of equipment installed.

## THE FUTURE

What lies ahead for the telecom industry is anyone's guess. One can even question whether or not telecom towers will exist at some point in the not-too-distant future. There is talk of things like nano-technology, where an area on a wall or a roof could be spray painted with a material that actually creates a cellular network. The point is that the telecom industry is ever changing and those involved in regulating the industry, managing its properties, or appraising its value must keep a watchful eye on developments and be committed to staying current with the demands of the marketplace and the environment. Appraisers have a significant role to play in this process as they can provide an unbiased third-party valuation of the land and buildings that the telecom sites utilize. 🌈

**GRAPH 1: LICENSE TERMS: OLD VS. NEW**

OLD LICENSE TERMS	NEW LICENSE TERMS
5-year terms with 2-3, 5-year renewals at licensee discretion	5-year term with 5-year renewal at MV discretion
No Safety Code 6 requirement	Safety Code 6 required
No restrictions on new equipment or change of equipment	Must submit request with drawings and get MV approval
Set amount of sub-tenancies	May charge additional license fees if new equipment and sub-tenancies are introduced
Can enter secured sites with no notice	Must provide 48 hours prior notice when entering a secured site
No accountability for condition of tower or equipment	MV may require building inspector and professional engineer to inspect at any time if the tower or equipment is determined to be unsafe or dangerous
Termination only at expiry or breach of agreement party	By written agreement by the parties or 12 months' notice by either
Tenant responsible for their proportionate share of property taxes if terminated before the end of the year by either party	Tenant responsible for full year's taxes irrespective of when they actually vacated