



ADMINISTRATIVE REPORT

Report Date: July 16, 2013
Contact: Brian Charleston
Contact No.: 604.673.8082
RTS No.: 10161
VanRIMS No.: 08-2000-20
Meeting Date: July 24, 2013

TO: Standing Committee on Planning, Transportation and Environment
FROM: General Manager of Engineering Services
SUBJECT: License Agreement for Attaching Telecommunications Infrastructure to City-owned Street Poles

RECOMMENDATION

- A. THAT the General Manager of Engineering Services and the Director of Legal Services be authorized to execute and deliver license agreements for antenna installations on City-owned street poles, and related infrastructure, in the form of Appendix A hereto.
- B. THAT Council approve the duct license rates attached as Appendix B hereto, setting forth rates to be charged to telecommunications companies when licensing City-owned duct space for use in connection with antenna installations on City-owned street poles, provided that such rates being charged to the companies shall be replaced with more permanent rates once Council adopts the new general rates for licensing of City-owned duct space.
- C. THAT no legal rights or obligations will arise or be created by Council's adoption of Recommendations A and B, unless and until a license agreement has been executed and delivered by the respective parties.

REPORT SUMMARY

On February 12th, 2013, Council approved the "Contracting Protocol for Antenna Installations on City-Owned Poles" and authorized the General Manager of Engineering Services and the Director of Legal Services to jointly negotiate, with telecommunications companies, a form of standard City license agreement for antenna installations on City-owned poles located in City streets, provided that, prior to the execution and delivery of any such license agreement in the form so negotiated, Council's approval of the form would be obtained.

Staff have engaged in negotiations with the telecommunications companies and have, as a result, finalized the form attached as Appendix A for use in licensing space on City-owned street poles. In accordance with the Vancouver Charter, City staff requires Council approval of the form of agreement before it can proceed to use it. Without the approvals sought through this report, telecommunications companies will not, practically, be able to use City-owned street poles to expand their network and they will need to rely on alternative methods to install their equipment (e.g. building roof tops or

monopolies). This would limit the capability of telecommunications companies to continue to meet demand for, and improve on, the wireless services relied upon by Vancouver citizens and businesses, including technology companies.

In connection with the installation of antennae, it is necessary to also install some underground power or other cable connections. In order to minimize the disruptions to the public that are inherent in new street excavations, City Engineering Services staff propose to make available, where appropriate and where resources permit, City-owned duct space, in exchange for license fees, at the provisional rates set forth in Appendix B (such duct license rates being in addition to the license fees charged for the use of street poles themselves, which Council approved as part of its approval of the "Contracting Protocol for Antenna Installations on City-Owned Poles").

If the recommendations are adopted, City staff will enter into license agreements with telecommunications companies only in respect of those proposals that meet the requirements of the approved "Contracting Protocol for Antenna Installations on City-Owned Poles."

COUNCIL AUTHORITY/PREVIOUS DECISIONS

The "Contracting Protocol for Antenna Installations on City-Owned Poles" was approved by Council on February 12th, 2013. The protocol was developed on the basis of a 2011 Council motion to work with telecommunications companies to develop clear protocols and guidelines for the installation of telecommunications antennae in the City, addressing citizen and industry concerns.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services RECOMMENDS approval of the recommendations set out herein.

REPORT

Background/Context

This report seeks Council's approval to enter into license agreements with telecommunications companies to permit them to attach antennae to City-owned street poles under the "Contracting Protocol for Antenna Installations on City-Owned Poles" approved by Council on February 13th, 2013 (the "Protocol").

In approving the Protocol, Council also authorized the General Manager of Engineering Services and the Director of Legal Services to jointly negotiate, with telecommunications companies, a form of standard City license agreement for antenna installations on City-owned street poles located in City streets, provided that, prior to the execution and delivery of any such license agreement in the form so negotiated, Council's approval of the form would be obtained.

In accordance with the Vancouver Charter, City staff requires Council approval of the form of agreement attached as Appendix A before it can proceed to use it. As a result, approval of the recommendations set forth herein is, practically, necessary to allow City staff to implement the Protocol approved in February.

Approval of the recommendations set forth in this report will allow City staff to execute agreements with telecommunications companies so they can begin expanding their networks using City-owned street poles to meet increasing mobile data demands. This will have the effect of improving the wireless network in the City and support the City's Digital Strategy, as well as moving the City closer to realizing the V-pole concept proposed by Vancouver author Douglas Copeland.

Without the approvals sought through this report, telecommunications companies will not, practically, be able to use City-owned street poles to expand their networks and they will need to rely on alternative methods to install their equipment (e.g. building roof tops or monopoles). This would limit the capability of telecommunications companies to expand and continue to meet demand for, and improve the wireless services relied upon by Vancouver citizens and businesses, including technology companies.

The form of agreement set forth in Appendix A is derived in part from the form of antenna license agreement used by the City for antenna installations on buildings, although it has been enhanced and modified to deal particularly with street poles and related infrastructure. It draws on the City's Street Utilities By-law and forms of agreements used by other municipalities in Canada.

Staff have also engaged in negotiations with the telecommunications companies (Rogers, Shaw, Wind and Telus) in preparing the final form attached as Appendix A and, in doing so, have addressed a large number of their concerns.

The form of license agreement contemplates initial license terms of between one and ten years. Thereafter, licenses could be renewed by the licensees, however they would be terminable by the City, in the City's discretion, at any time during any renewal term. In addition, at any time, whether in an initial term or a renewal term, a license would be terminable by the City in the case of a breach of the agreement by the licensee. The licence agreement also contemplates the granting of a broad indemnity and a release of liability by the licensee to the City, and that licensees must obtain certain insurance coverage. Please refer to Appendix A for full details of the license terms.

In connection with the installation of antennae, it is necessary to also install some underground power or other cable connections. In order to minimize the disruptions to the public that are inherent in new street excavations, City Engineering Services staff propose to make available, where appropriate and where resources permit, City-owned ducts, in exchange for license fees (in addition to the fees charged for the use of street poles themselves, which Council approved as part of its approval of the Protocol). Therefore, this report is seeking approval of the attached duct rental rate sheet (Appendix B) setting forth rates to be charged to telecommunications companies when licensing City-owned duct space for use in connection with antenna installations provided that such rates being charged to the companies shall be replaced with more permanent rates once Council adopts the new general rates for licensing of City-owned duct space.

The license terms for ducts would be the same as those set out in Appendix A in relation to the licensing of street poles.

The duct license rates set out in Appendix B were developed using the Waywest Telecom Consultants report, attached as Appendix C, as the primary resource. This report discusses different business models and rate structures for licensing duct space and describes the rates charged by other organizations with duct license models in place (e.g. BC Hydro and the Ministry of Transportation and Infrastructure).

Moving forward, staff will be working with the City's Financial Services Group on developing a business model and permanent rate structure for licensing City-owned duct space to third parties, not only for use in antenna installations, but for general telecommunication purposes (e.g. to support new telecommunication companies in developing fibre networks in the City or to allow telecommunication companies to reach customers with minimal disturbance to the streets). Staff will also consult with City Digital Strategy staff regarding how the model will best support the City's Digital Strategy and work with the City's Legal Department to develop a standard form of license agreement for use of City-owned duct space.

Therefore, staff are proposing that the rates set out in Appendix B apply for a term of 1 year, to allow antenna installations to proceed, while staff further researches and develops a broader strategy for

usage of ducts and duct license rates. Staff will then report back to Council requesting approval of more permanent rates for usage of ducts in the City. Those new rates shall replace the temporary rates once Council adopts the new general rates for licensing of City-owned duct space.

Strategic Analysis

Modern wireless services, capable of supporting large wireless data requirements, are critical to a healthy economy. Using City-owned street poles for attachments through these agreements, the City can optimize the use of City resources, while facilitating better services for our citizens and businesses.

City staff will enter into license agreements with telecommunications companies only in respect of those proposals that meet the requirements of the approved Protocol. The Protocol has been designed to address and mitigate community and aesthetic concerns.

The use of City-owned poles is one of several methods that can be used to facilitate better coverage in the City. There will still be a need for well designed monopoles and rooftop antennae in certain cases to meet the objectives of better coverage throughout the City.

Implications/Related Issues/Risk (if applicable)

Financial

There is no capital or operating expense budget impact anticipated with granting antenna or duct use licensing agreements. License applicants will be responsible for paying one-time up-front plan review fees and annual license fees once agreements are executed.

If approved to proceed, staff anticipate processing agreements for about 100 antenna attachments that will generate up to \$35,000 in one-time plan review fees and up to about \$125,000 per year in pole license fees plus any related duct license fees by the end of 2014. Beyond 2014, annual revenues will likely increase with continued demand for more license agreements.

Environmental

Agreements may include provisions to supply power for public amenities such as electric vehicle charging stations and outlet plugs that could be used in place of generators to power food carts and special events. Such provisions will be put in place only where a proposed antenna location coincides with a food cart or potential EV charging location.

CONCLUSION

The demand for mobile data is increasing at an overwhelming rate and the existing cellular network does not have the capacity to keep up with this demand. Attaching antennae to City-owned street poles is a great opportunity for telecommunication companies to expand their networks to meet this demand. Meeting the demand is critical to economic and social development in the City and is aligned with the key elements of the City's Digital Strategy. Lastly, the use of City-owned street poles for antenna attachments is an efficient way of using City resources and provides an additional source of revenue.

City staff recommends that Council authorize the General Manager of Engineering Services and the Director of Legal Services to execute and deliver license agreements for antenna installations on City-owned street poles, and related infrastructure, in the form attached as Appendix A.

City staff also recommends that Council approve the duct license rates attached as Appendix B, setting forth rates to be charged to telecommunications companies when licensing City-owned duct space for

use in connection with antenna installations on City-owned street poles, provided that such rates being charged to the companies shall only apply until such time as Council adopts new general rates for licensing of City-owned duct space.

* * * * *

CITY OF VANCOUVER STREET POLE ANTENNA AGREEMENT

[MODIFY THIS FORM AS NECESSARY]¹

This agreement (this “Agreement”) is made effective as of *[DATE]*.

SUBJECT CITY PROPERTY: As set forth in Schedule “A” (the “City Property”)²

LICENSOR: CITY OF VANCOUVER, a municipal corporation having offices at 453 West 12th Avenue, Vancouver, British Columbia, V5Y 1V4, acting in its capacity as owner of the City Property (the “Licensor”)³

LICENSEE: *[LEGAL NAME OF LICENSEE]* (the “Licensee”)

1.0 LICENSOR APPROVAL AND CONSENT

All Licensor rights, obligations, approvals, consents, directions, decisions, actions or other things required or permitted or otherwise provided for herein shall be effectively decided, carried out, performed, received, exercised or discharged as the case may be by or as directed by the Licensor through its authorized officers, officials, employees or agents (the “Licensor’s Personnel”).

2.0 GRANT OF LICENSE AND TERM

2.1 The Licensor grants to the Licensee, subject to this Agreement:

- (a) for the Term (as hereinafter defined), a non-exclusive right, by way of license, to use for the Permitted Use (as defined herein) those portions of the City Property on which the Equipment (as defined herein) shall be installed as shown in the drawings included within Schedule “A” (the “License Area”) *[following the installation, by the Licensee to the Licensor’s satisfaction, of new street poles and other equipment forming City Property, as specified in Section [] of Schedule “A” and referred to in Section 2.1(c) below; / ; and]*

¹ This agreement is a form that is to be modified as necessary for each definitive license. The items that are in square-brackets are optional or variable items that need to be addressed. Other items that may be modified are noted in footnotes. No square brackets or footnotes should remain in a definitive license agreement.

² The property may include poles that are cost-shared with TransLink/Coast Mountain Bus Company, in which case this form may be modified to provide for the sharing of rights and obligations between the City and TransLink/Coast Mountain Bus Company and to make other changes required as a result of TransLink/Coast Mountain Bus Company being a Licensor.

³ Translink/Coast Mountain Bus Company may be included as a joint Licensor when applicable.

- (b) *[following the installation, by the Licensee to the Lessor's satisfaction, of new street poles and other equipment forming City Property, as specified in Section [] of Schedule "A" and referred to in Section 2.1(c) below,] a non-exclusive right, by way of license, to pass and re-pass over, at its own risk, such other portions of the City Property adjacent to the License Area as is necessary during the Term to make use of the License Area for the Permitted Use, subject to such conditions, limitations and restrictions provided for herein or as the Lessor may otherwise require from time to time[. / ; and]*
- (c) *[in order to permit, and as a precondition to, the initial installation of Equipment in the License Area, consent of the Lessor for the Licensee to, at the Licensee's own risk and expense, install new street poles and other equipment as specified in Section [] of Schedule "A", which such new street poles and other equipment shall, upon installation, be deemed to be conveyed to and become the sole property of the Lessor, as stated in Section 11.1, and which may be identified as City Property in Schedule "A" and form part of the License Area.]⁴⁵*
- (d) *[MODIFY AS NECESSARY TO REFER TO USES OF CITY DUCT SPACES.]*
- (e) *[MODIFY AS NECESSARY TO REFER TO VALUE-ADDED SERVICES]*
- 2.2 This Agreement shall have a term of []⁶ years (the "Term"), commencing on *[DATE]* ("Commencement Date") and ending at 11:59 p.m. on *[DATE]* (the "Expiry Date"), unless the Agreement is sooner terminated in accordance with this Agreement or extended as set out herein, in which case the "Expiry Date" shall be deemed to mean the time and date of expiry of this Agreement, as varied hereunder, and "Term" shall be deemed to mean the period commencing on the date hereof and ending on the Expiry Date.

3.0 PRICE

- 3.1 The Licensee shall pay the Lessor for the license granted herein, without any deduction or set-off, but subject to adjustment as provided for herein in respect of any Renewal Terms, annual consideration in the amount of \$*[AMOUNT]*⁷ (the "Annual License Amount"), plus all

⁴ This paragraph and related text throughout the agreement shall only apply in cases in which the licensee's equipment requires a new pole or other infrastructure. New poles shall not be required by the City in cases in which the licensee's equipment can be supported by the existing pole.

⁵ If the City requires the licensee to install amenities not related to the Licensee's business (e.g., electric charging stations), such amenities would fall under this Section 2.1. Amenities will be of the type described in the City's "ENGINEERING SERVICES UTILITIES MANAGEMENT BRANCH CONTRACTING PROTOCOL FOR ANTENNA INSTALLATIONS ON CITY-OWNED POLES," as adopted by Vancouver City Council. Other provisions of this agreement may need to be modified to make reference to amenities.

⁶ The term may between one and ten years.

⁷ The price will, to the extent the License Area includes City-owned ducts, include the duct price, which shall be as established by Vancouver City Council. If Council approves an increase in the duct price, the increase must take effect for purposes of each existing agreement. Drafting shall reflect this.

applicable taxes, with the Annual License Amount for the 12-month period beginning on the Commencement Date to be paid on or before the Commencement Date and each subsequent Annual License Amount to be paid on or before the next anniversary date of the Commencement Date.

- 3.2 In addition to the Annual License Amount, the Licensee shall pay to the Lessor: (i) an amount, in lieu of expenses incurred by the Lessor to review the Licensee's plans and drawings, equal to \$[AMOUNT] upon execution of this Agreement, provided that if such amount has been paid by the Licensee to the Lessor prior to the date hereof in respect of the specific subject matter hereof, the Licensee is not required to make a further payment of the same amount; and (ii) each time that the Lessor reasonably inspects the use of the License Area, an inspection cost reimbursement equal to \$[AMOUNT].
- 3.3 All taxes payable in respect of or attributable to this Agreement (including, without limitation, any taxes on the equipment and structures installed by the Licensee pursuant hereto) shall be paid by the Licensee when due and the Licensee shall indemnify and hold harmless the Lessor in relation to any claim for any taxes arising from this Agreement, and this Section 3.3 shall survive any termination of this Agreement.

4.0 RENEWAL

- 4.1 Subject always to Section 14.0, provided that the Licensee is not in default of this Agreement, the Licensee may, at its option, extend the initial Term of this Agreement for two further and consecutive periods of []⁸ years each (each, a "Renewal Term"). Each such renewal of the Term shall occur automatically and shall not require any prior notice to the Lessor and in that manner shall take effect automatically unless the Licensee, by giving written notice to the Lessor at least 90 days before the end of the initial Term or the then current Renewal Term, as the case may be, expressly elects not to exercise the right of renewal.
- 4.2 Each Renewal Term shall be on the same terms and conditions as set out in this Agreement, except that:
 - (a) the right to renew the Term shall be limited to a cumulative total for all time of two Renewal Terms as provided for above herein and consequently, the right of renewal contained in this Agreement shall be reduced accordingly each time such renewal right is exercised; and
 - (b) each time the Term is renewed, the Annual License Amount shall be adjusted to increase it (but never to decrease it) by the greater of:
 - (i) an amount equivalent to the percentage change in the Consumer Price Index (CPI) for the Province of British Columbia for all items over the immediately preceding []-year term (or the immediately preceding Renewal Term); or
 - (ii) an amount equivalent to any increase in the fair market value for the rights granted herein to the Licensee, except that if the parties fail to agree on the

⁸ Each renewal term may be for between one and five years.

increase in the fair market value at least 30 days prior to the Expiry Date of the initial Term or the expiry of a subsequent Renewal Term, then such disagreement shall be referred to arbitration pursuant to the *Arbitration Act* (British Columbia) or any successor legislation.

5.0 USE OF LICENSED AREA⁹

- 5.1 The Licensee's use of the License Area and such other parts of the City Property as may be expressly permitted hereunder shall be for the purpose and only for the purpose of the Licensee (or its contractors), at its expense, installing, constructing, placing, removing, replacing, relocating, inspecting, maintaining, repairing, supplementing and operating within the License Area, in the provision to the public of radio-communication services, the specific structures and equipment described in [Section []¹⁰ of] Schedule "A" hereto (the "Equipment"), subject to the Licensee complying at all times in respect thereof with the further requirements of such Schedule "A" and all applicable laws, regulations, policies, guidelines and other requirements of any and all authorities, agencies and bodies having jurisdiction in respect of the Equipment and the Licensee's use and operation thereof and the Licensee's activities and operations hereunder (the "Permitted Use").
- 5.2 Within 30 days of completion of the initial installation of, and within 30 days of any further work as may be permitted hereunder in respect of, the Equipment [*or other items installed pursuant to Section 2.1(c) hereof*] (including under Section 5.5 or Section 6.1, except for any work that does not involve any initial installation of, or any modification to, any item), the Licensee shall deliver to the Lessor "as-built" drawings prepared by a Canadian professional engineer, an Applied Science Technologist or a similar professional, satisfactory to the Lessor, showing the exact location and dimensions of the Equipment [*and other items installed pursuant to Section 2.1(c) hereof*] ("Record Drawings"), failing which this Agreement shall be subject to termination by the Lessor pursuant to Section 14.3.¹¹
- 5.3 If Record Drawings delivered to the Lessor under Section 5.2 are satisfactory to the Lessor, they shall be attached as Schedule "B" to this Agreement. If Record Drawings delivered to the Lessor show that Equipment, as installed [*, or another item, as installed*], differs, in any manner, including as to location of installation, from the description thereof in Schedule "A" (or, if applicable, from a modification thereto previously expressly approved in writing by the Lessor or a modification otherwise permitted under Section 5.5 or Section 6.1), then, at the Lessor's sole discretion:

⁹ Where the License Area includes City duct space, this section may be modified in the City's discretion to require installations of Equipment (including cables) in such duct spaces to be carried out by the City.

¹⁰ Not everything listed in Schedule A is "Equipment." Things to be installed by the licensee but to belong to the City (e.g., poles or amenities under Section 2.1(c)) are not Equipment.

¹¹ This paragraph (and further paragraphs dealing with record drawings) may be modified to remove the requirement that as-built drawings be provided in those cases in which no underground infrastructure is used or installed and the City Engineer is satisfied that as-built drawings are not necessary. Even where the paragraph is included, note that Section 14.3 provides for a 60-day cure period.

- (a) the Licensee, at its expense, within 30 days of the Licensor's request, and to the Licensor's satisfaction, shall modify the Equipment [*or other item*] or its location so that it is consistent with Schedule "A" (or, if applicable, with a modification thereto previously expressly approved in writing by the Licensor or otherwise permitted under Section 5.5 or Section 6.1) and provide the Licensor with another set of Record Drawings for approval by the Licensor which shall be attached as Schedule "B" to this Agreement; or
 - (b) the Licensor may agree in writing to the applicable variation from the requirements of Schedule "A" (or, if applicable, from a modification thereto previously expressly approved in writing by the Licensor or otherwise permitted under Section 5.5 or Section 6.1), whereupon the License Area[, / *and*] the Equipment [*and the requirements of Section 2.1(c) hereof*], shall be deemed to be as shown in the Record Drawings and the Record Drawings shall be incorporated as Schedule "B" to this Agreement and the Annual License Amount may be adjusted accordingly as the Licensor may reasonably require.
- 5.4 Should the Licensee refuse or fail to modify the Equipment [*or another item*] as directed by the Licensor in accordance with Section 5.3(a), then this Agreement shall be subject to termination by the Licensor pursuant to Section 14.3.
- 5.5 Once the Equipment [*and all street poles and other equipment required hereby*] [*has / have*] all been installed in accordance with this Agreement, the Licensee shall not modify [*it / them*] at any time in any way without delivering a written detailed notice of its proposed modification(s) to the Licensor at least 20 days prior to making such modification(s). If the Licensor delivers notice to the Licensee within 15 days of receipt of the Licensee's aforesaid notice that the Licensor objects to the proposed modification(s), or intends to impose conditions to the proposed modification(s), then the modification(s) shall not be made except on such terms and conditions as the Licensor may, acting reasonably, require. If notice is not delivered by the Licensor within such 15 days, then the proposed modification(s) may be undertaken by the Licensee, in full accordance with the Licensee's aforesaid notice. Notwithstanding the foregoing, the Licensee may at any time make such modifications as are strictly necessary to address emergencies reasonably involving material threats to persons or property or make such other modifications as are approved in writing by the general manager of the Licensor's Engineering Department (the "City Engineer").
- 5.6 Subject to any applicable restrictions and requirements imposed by law or pursuant to this Agreement, the Licensee shall have 24-hour access to the Equipment, seven days a week (*force majeure*, as determined by the Licensor acting reasonably, excepted).
- 5.7 The Licensee shall not install any equipment, instruments or other things in the License Area other than the Equipment or install any equipment, instruments or other things on the Licensor's property outside of the License Area, and shall not in any way, except as stated in Section 5.5, modify the Equipment (or any property of the Licensor[, *including property of the Licensor installed by the Licensee hereunder*]) at any time without the explicit prior written permission of the Licensor and in accordance with this Agreement, and the Licensee acknowledges that any such unapproved installations of equipment, instruments or other things inside or outside of the License Area or such unapproved modifications to the Equipment or property of the Licensor shall be deemed automatically to constitute a material breach of this Agreement.

5.8 The Licensee must comply with all applicable City of Vancouver by-laws in connection with the installation of its Equipment [*and of all street poles and other equipment required hereby*], and must comply with all provisions of the Licensor's "ENGINEERING SERVICES UTILITIES MANAGEMENT BRANCH CONTRACTING PROTOCOL FOR ANTENNA INSTALLATIONS ON CITY-OWNED POLES," as adopted by Vancouver City Council, and as amended from time to time (the "Protocol"), whether or not a particular provision thereof is also set forth in Schedule "A" or elsewhere herein, provided that, if the annual payments for pole use set forth in such protocol are amended, such amendments shall not affect this Agreement.

6.0 PRIOR NOTICE & LICENSOR ADDITIONAL COSTS

6.1 Prior to commencing any work in the License Area or otherwise on the Licensor's property, including without limitation the installation, maintenance, repair or removal of the Equipment [*or any street poles or other equipment required hereby*] (and including any work under Section 5.5), the Licensee shall give the Licensor at least five days' advance notice of its proposed work (or such longer notice under Section 5.5), provide the Licensor, to its satisfaction, with all construction drawings, plans and specifications for, and a detailed written description of, the work contemplated and obtain the express prior written approval of the Licensor with respect to such work and of all plans and specifications and descriptions (except as otherwise expressly provided in Section 5.5 or where such approval is expressly provided hereby). Notwithstanding the foregoing, the Licensee may at any time undertake such work as is necessary to address emergencies reasonably involving material threats to persons or property (subject, however, to compliance with Section 5.2 if the work involves any initial installation or modification of any item).

6.2 The Licensee shall pay the Licensor within 30 days of the Licensor invoicing the Licensee, any additional verifiable costs reasonably incurred by the Licensor in repairing, maintaining or constructing any works or improvements on, or consisting of, the City Property or carrying out any work of any kind on the City Property, in each case as a result of the presence of Equipment thereon, if and whenever the Licensor incurs such additional costs.

7.0 UTILITIES¹²

7.1 Utilities connections (including electricity and communications connections and all related duct work) required for the operation of the Equipment, and all utilities consumption attributable to the operation of the Equipment, shall be the sole responsibility of the Licensee [*, and, in relation thereto, the Licensee shall cause to be installed separately metered and billed utility services for its Equipment, for which it shall be solely responsible.*]

7.2 [*If the Licensee does not have a separately billed electricity service for its Equipment or is otherwise not billed directly by any utility supplier, then the Licensee shall reimburse the Licensor on a monthly or quarterly basis for its respective portions of the applicable utility rates, charges, costs and expenses incurred by the Licensor, as allocated by the Licensor and communicated to the Licensee, based upon the Licensee's use of each of the respective utilities for the Equipment, as determined by the Licensor.*]

¹² In almost all cases, the City will require the licensee to install a separate meter for its equipment requiring electricity.

7.3 [The Licensee shall reimburse the Licensor at the end of the initial Term and each Renewal Term, and monthly thereafter if granted an extension, for any required adjustments to the utility costs incurred by the Licensor based upon the Licensee's use of the City Property and which are not accurately calculated on a monthly or quarterly basis.]

7.4 [Any other provision hereof notwithstanding, the Licensor shall be solely responsible for the utility connections required for, and the utilities consumption attributable to, the operation of the [DESCRIBE AMENITY]¹³ to be installed by the Licensee pursuant hereto.]

7.5 [MODIFY AS NECESSARY.]

8.0 EQUIPMENT

8.1 The Equipment shall remain the personal property of the Licensee at all times and shall be removed by the Licensee, at its expense, no later than the Expiry Date or, if earlier, 30 days following the termination date of the Agreement, provided that the Licensee shall obtain the prior written approval of the Licensor with respect to any voluntary removal of the Equipment by the Licensee, including approval of the timing thereof.

8.2 Upon the Expiry Date (or, if earlier, 30 days following the termination date of the Agreement) or the earlier removal or abandonment by the Licensee of any Equipment that is not replaced by the Licensee in accordance herewith, the Licensee, at its expense, shall restore the License Area (or the relevant portion of the License Area from which Equipment has been removed and not replaced or on which Equipment has been abandoned) to a condition substantially equivalent to its original condition, at the sole cost and expense of the Licensee, all to the satisfaction of the Licensor[, it being agreed that, in the case of a new street pole installed by the Licensee pursuant to Section 2.1(c), "original condition," as used in this paragraph, means the original condition of such new pole, but without any Equipment].

8.3 If the Licensee fails to remove any Equipment from the City Property that is required to be removed pursuant to the terms of this Agreement or fails to restore the License Area as required by Section 8.2 or fails to repair any related damage to the City Property, or to any of the Licensor's property or improvements on or within the vicinity of the City Property resulting from such removal of the Licensee's Equipment, the Licensor may, but shall not be obligated to, carry out the Licensee's obligations and remove any such Equipment or repair the License Area or any damage caused to the Licensor's property incidental to this Agreement, in which event the Licensee shall, forthwith following receipt of any written request from the Licensor, pay to the Licensor the amount of any costs from time to time incurred by the Licensor in so doing, plus a reasonable sum (not greater than 20% of such costs) as a surcharge for overhead.

8.4 [Any other provision hereof notwithstanding, any item (whether a street pole or other equipment) installed pursuant to Section 2.1(c) hereof shall, upon installation, become the exclusive property of the Licensor as stated in Section 11.1 and shall not be removed by the Licensee without the written consent of the Licensor.]

¹³ As noted above, amenities will be of the type described in the City's "ENGINEERING SERVICES UTILITIES MANAGEMENT BRANCH CONTRACTING PROTOCOL FOR ANTENNA INSTALLATIONS ON CITY-OWNED POLES," as adopted by Vancouver City Council.

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- 8.5 The Licensee must provide prompt notice to the Lessor when any Equipment ceases to be used by the Licensee or is otherwise abandoned by the Licensee.
 - 8.6 The Licensee shall secure, repair and maintain all Equipment in a safe condition and free of graffiti for so long as it is located on City Property[, provided that the Licensee shall not be required to secure, repair or maintain any item (whether a street pole or other equipment) installed pursuant to Section 2.1(c) hereof except for [EXCEPTIONS]¹⁴], and the Licensee shall cooperate with the Lessor and shall promptly comply with the Lessor's reasonable instructions in relation to any repairs to, or any replacement of, any street pole on which Equipment is installed that is necessitated by any accident, wilful damage or natural event; provided that [, subject to Section 8.7,] the costs for the repair or replacement of the street pole shall be borne by the Lessor. (For the avoidance of doubt, the Licensee shall be solely responsible for the repair or replacement of Equipment necessitated by or in connection with any such repair or replacement of a street pole arising from any accident, wilful damage or natural event.)
 - 8.7 [Promptly upon the execution hereof, the Licensee shall cause to be placed in its storage facility within or in close proximity to the City of Vancouver []¹⁵ street pole[s] of the same type as [that / those] to be installed pursuant to Section 2.1(c) hereof, and shall thereafter, without charge for the street pole[s] or the delivery service, deliver such street pole[s] to the Lessor within the City of Vancouver [from time to time] promptly upon the request of the Lessor.]¹⁶
 - 8.8 [Any other provision hereof notwithstanding, the [DESCRIBE AMENITY] installed by the Licensee pursuant hereto shall not be removed, replaced or modified by the Licensee without the prior written consent of the Lessor.][ADD OTHER PROVISIONS RESPECTING THE AMENITY, AS NECESSARY.]
 - 9.0 CERTIFICATION
 - 9.1 Prior to commencement of any construction work hereunder (but not in the case of emergency work described in Section 5.5 and Section 6.1), the Licensee, at its expense, shall provide the Lessor with [street pole foundation drawings and] structural loading drawings, signed and sealed by a duly licensed and qualified Canadian professional engineer, satisfactory to the Lessor, showing that [each street pole foundation shall be structurally sound and that] the structural loading of the Equipment shall not be excessive for the street pole(s), failing which the Licensee shall not proceed with such construction work.¹⁷

¹⁴ Negotiated exceptions, if any.

¹⁵ The number of poles will be one or two, depending on the number of poles dealt with under this agreement.

¹⁶ The purpose of this provision is to ensure replacement poles are readily available in the event of accidents.

¹⁷ This certification requirement may be modified or removed from some definitive license agreements if the City Engineer determines that the nature of an antenna installation is such that, reasonably, this certification ought not to be required.

9.2 Without limitation to anything else herein, the Licensee, at its expense, shall ensure that all safety requirements applicable to the installation, maintenance and use of the Equipment are complied with as required at all times, including, without limitation, that a Safety Code 6 radio frequency inspection report is prepared within 30 days of commencement of operations or of any subsequent material changes to the Equipment, which report shall be authored by a qualified person or qualified persons meeting any requirements for such person or persons set by Industry Canada, and which report shall result from an inspection or inspections of the License Area and other affected locations, together with such other tests, surveys and inquiries as such person or persons deem(s) advisable in such circumstances, and which report shall include a written summary of the nature and results of all tests, surveys and inquiries conducted and recommendations for any remedial or precautionary actions to be taken in relation to the level of radio frequency radiation. The cost of any reports required hereby or requested by the Licenser shall be paid by the Licensee. In the event that any such report concludes that the level of radio frequency radiation exceeds the level established in Safety Code 6, the Licensee shall immediately disconnect the electricity supply to its relevant Equipment and shall not re-connect it until such time as it is possible to do so without exceeding the level of radio frequency radiation established in Safety Code 6.

10.0 COMPLIANCE WITH LAWS

10.1 As a fundamental term of the Agreement, the Licensee represents, warrants, covenants and agrees that its Equipment and its operations on and near the License Area shall comply with all applicable federal, provincial and local laws, regulations and legal standards, including without limitation environmental laws and regulations.

10.2 Without prejudice to the generality of the foregoing, as a fundamental term of the Agreement, the Licensee represents, warrants, covenants and agrees that any and all signals, transmissions or radiation that may be emitted from the Equipment are in compliance with all applicable laws, regulations and legal standards.

10.3 In the event that the Licensee or its Equipment fails to comply with any applicable laws, regulations or standards (other than in the circumstances described in Section 9.2), the Licensee shall immediately disconnect the electricity supply to its Equipment, if necessary to avoid any violation of any applicable law, regulation or legal standard, and shall, within 90 days, produce and deliver to the Licenser a plan to remedy all of the relevant legal deficiencies, which plan is reasonably acceptable to the Licenser, and thereafter shall promptly implement such plan, failing which this Agreement may, upon written notice, be terminated by the Licenser pursuant to Section 14.3 and for purposes of such termination, the 60-day notice requirement stated in Section 14.3 shall not apply.

11.0 CONVEYANCE; NO LIENS

11.1 *[The new street poles and other equipment specified in Section [] of Schedule "A" and referred to in Section 2.1(c) shall be installed by the Licensee in accordance with Schedule "A," and all rights, titles and interests thereto or therein shall, upon the installation of each by the Licensee, be deemed to be transferred and conveyed by the Licensee to the Licenser, and the Licensee shall thereafter promptly execute all documents and do all other things necessary to ensure that such street poles and other equipment are effectively and fully conveyed to the Licenser, free of any liens, charges or encumbrances, and this Section 11.1 shall survive any termination of this Agreement.]*

- 11.2 The Licensee, at its expense, shall promptly discharge any liens and other encumbrances at any time filed against any City Property or the Licensor's interest in City Property [*, or any other property specified in Section [] of Schedule "A" and referred to in Section 2.1(c)*], arising as the result of any act or omission of the Licensee, and shall keep the City Property and License Area [*and any other property specified in Section [] of Schedule "A" and referred to in Section 2.1(c)*] free from any and all such liens and other encumbrances. If the Licensee fails to do so within 15 days of receiving notice of a lien or other encumbrance, the Licensor may, but shall be under no obligation to, take such action as may be necessary or expedient to discharge such lien or other encumbrance (whether or not the same is admitted or denied by the Licensee), including without limitation, paying into a court of competent jurisdiction the amount required to obtain a discharge of such lien or other encumbrance in the name of the Licensee, and any amounts so paid, together with all disbursements and costs in respect of such proceedings shall, on a solicitor and own-client basis, be forthwith due and payable by the Licensee to the Licensor.
- 11.3 Prior to the commencement of any construction, alterations or improvements on the License Area or otherwise on property of the Licensor and, when so directed by the Licensor, the Licensee shall, on behalf of the Licensor, post and keep posted on the License Area or otherwise on property of the Licensor any notices that the Licensor may desire to post under the provisions of any applicable builders' lien legislation.

12.0 NOTICE

Notices shall be in writing and sent by email, facsimile or mail (postage prepaid) and shall be deemed to be received upon the date of emailing or facsimile transmission (or if that day is not a City of Vancouver business day, on the next following City of Vancouver business day) or seven days after the date of mailing (or if that day is not a City of Vancouver business day, on the next following City of Vancouver business day), to the address or fax number of the party set forth below:

City of Vancouver
453 West 12th Avenue
Vancouver, British Columbia V5Y 1V4
Attention: [NAME]
Email: [EMAIL]
Fax number: [NUMBER]

[LEGAL NAME]
[ADDRESS]
Attention: [NAME]
Email: [EMAIL]
Fax number: [NUMBER]

13.0 ASSIGNMENT

- 13.1 Assignment of this Agreement or sublicensing of rights by the Licensee may be made to any corporate affiliate of the Licensee, any principal lender of the Licensee or a purchaser of all of the Licensee's assets and operations. No other assignment or sublicense is permitted without the Licensor's prior written consent.

13.2 The Licensee shall not permit use of all or any portion of the License Area or the exercise of any rights of the Licensee hereunder by any other entities (other than permitted assigns and sub-licensees) unless the Licensor gives its prior written consent.

13.3 Any assignment or sublicensing shall not relieve the Licensee of its obligations under this Agreement.

14.0 TERMINATION

14.1 Termination of this Agreement may be exercised by the Licensee at any time on 60 days' written notice without further liability if the Licensee cannot obtain all necessary rights and approvals required from any governmental authority to use and operate the Equipment, or if any such right or approval is cancelled, expires or is terminated, or if for any other bona fide reason (e.g., interference with the Licensee's signals or commercial impracticality) the Licensee determines that it shall be unable to use the License Area or exercise its license rights for any of their intended purposes.

14.2 The Licensor may during a Renewal Term, for any reason whatsoever, terminate this Agreement in whole, or in respect of a particular item or particular items of Equipment [*or other items installed hereunder*] only, in each case on 60 days' written notice to the Licensee, and without any compensation, damages or other amounts of any nature or kind whatsoever being due or payable by the Licensor to the Licensee as a result of the early termination.

14.3 If, after receipt of 60 days' written notice from the Licensor, the Licensee fails to remedy a breach of this Agreement or defaults on its obligations set out herein, including, without limitation, payment of any Annual License Amount, then the Licensor, in addition to any other remedy it may have available to it, may immediately terminate this Agreement and all rights of the Licensee hereunder shall cease and expire.

14.4 If the Licensee or Licensor terminates this Agreement in whole or in part pursuant to either of sections 14.1 and 14.2, neither the Licensor nor the Licensee shall be entitled to any compensation of any nature or kind whatsoever from the other as a remedy for such termination and neither the Licensee nor the Licensor shall be liable to the other in respect thereof, nor shall either party have any recourse against the other as a direct result of such termination. The Licensor and the Licensee, respectively, hereby each release the other from any and all claims for damages, economic losses, costs or any other compensation of any nature or kind whatsoever resulting from the Licensee or the Licensor exercising its termination rights as provided for in Section 14.1 or Section 14.2 prior to the end of the Term. Notwithstanding the foregoing, the aforementioned release shall not relieve the Licensee from any of its specific obligations, debts, liabilities or indemnification obligations existing under this Agreement, including, without limitation, its release and indemnification obligations under Section 3.3, 15.1 and Section 15.2, and its obligations under sections 8.1 and 8.2.

14.5 Notwithstanding anything to the contrary in this Agreement, upon the termination of this Agreement for any reason whatsoever by the Licensee or the Licensor, any prepaid Annual License Amounts shall not be re-adjusted, prorated, repaid or refunded by the Licensor to the Licensee.

15.0 RELEASE AND INDEMNITY

- 15.1 The Licensee hereby releases the Lessor and the Lessor's Personnel from any and all liability for any losses, injuries, damages or expenses suffered or incurred by the Licensee or the Licensee's officers, employees, agents or contractors (the "Licensee's Personnel") in connection with (a) the use of the City Property or the License Area by the Licensee or the Licensee's Personnel, (b) the performance of any work on or near the City Property, (c) the presence of Equipment [*or other items installed hereunder*], or of the Licensee's Personnel, on or near the City Property, or (d) any damage to the Equipment, and this Section 15.1 shall, notwithstanding any other provision hereof, survive the termination of this Agreement.
- 15.2 The Licensee shall indemnify, defend and hold harmless the Lessor and the Lessor's Personnel for, from and against any and all losses, injuries, damages and expenses, including all legal expenses, suffered, incurred or experienced by them or any of them, and shall indemnify and defend them and hold them harmless for, from and against all complaints, demands, claims, actions, suits, judgments and orders in respect of any and all losses, injuries, damages and expenses suffered by them or any of them, arising out of, connected with or attributable in whole or in part to the Equipment [*or items referred to in Section 2.1(c) hereof*] or to the acts or omissions of the Licensee or the Licensee's Personnel connected with this Agreement, including:
- (a) any breach, violation or non-performance by the Licensee or the Licensee's Personnel of any terms, conditions, covenants or obligations under this Agreement;
 - (b) any damage to, or loss or destruction of, or loss of use of, any of the Lessor's property, or any other real or personal property, including the Equipment [*or items referred to in Section 2.1(c) hereof*], occasioned by the use of the City Property or the License Area by the Licensee or the Licensee's Personnel or the use or existence of any of the Equipment thereon [*or items referred to in Section 2.1(c) hereof*];
 - (c) any injury to or death to any person resulting from the use of the License Area, the City Property, or any portion thereof, by the Licensee or the Licensee's Personnel or relating to the Equipment [*or items referred to in Section 2.1(c) hereof*];
 - (d) the performance of any work on the City Property by the Licensee or the Licensee's Personnel pursuant to this Agreement;
 - (e) any failure on the part of the Licensee to comply with health or safety laws or regulations;
 - (f) any failure or malfunction of any Equipment or its services [*, or any items referred to in Section 2.1(c) hereof,*] for whatever reason or cause; or
 - (g) the Licensee's or the Licensee's Personnel's installation, operation, maintenance, relocation, replacement, repair or removal of any Equipment or its or their use of the License Area,
- and this Section 15.2 shall, notwithstanding any other provision hereof, survive the termination of this Agreement.
- 15.3 Notwithstanding any other provision hereof, in no event will either party be liable for any indirect, consequential or economic losses of the other party (but without prejudice to the

obligation of the Licensee to, to the extent required by Section 15.2, indemnify, defend and hold harmless the Licenser and the Licenser's Personnel for, from and against losses, injuries, damages and expenses arising from the indirect, consequential or economic losses of third parties).

16.0 INSURANCE¹⁸

16.1 The Licensee shall obtain and maintain during the Term, the following policies of insurance:

- (a) Commercial general liability insurance with a limit of not less than \$5,000,000 per occurrence, protecting the Licensee and the Licenser against third-party claims or losses, for bodily injury, death, property damage or loss of use of property occurring within or about the City Property or the License Area and arising from the Licensee's operations or its occupation or use of the License Area. The policy shall contain a cross-liability or joint-severability clause naming the Licenser and the Licenser's Personnel as additional insureds. The policy shall contain the following extensions of coverage:
 - (i) broad-form property damage and completed operations;
 - (ii) personal injury;
 - (iii) blanket contractual liability;
 - (iv) contingent employer's liability; and
 - (v) non-owned automobile liability,and, where such further risks exist, the following additional extensions of coverage:
 - (vi) shoring, blasting, excavating, underpinning, demolition, removal, pile-driving and grading, as applicable;
 - (vii) hoist liability; and
 - (viii) operation of attached machinery.
- (b) All-risks property insurance, including earthquake and flood insurance, with coverage up to full replacement costs, for loss of, or damage to, property of every description owned by the Licensee, as well as property of others of which the Licensee has care, custody or control. The policy shall name the Licenser and the Licenser's Personnel as additional insureds and loss payees, in respect of their interests, and shall contain a clause that waives the insurer's right of subrogation against the Licenser and the Licenser's Personnel.

16.2 Each of the policies of insurance required by Section 16.1 shall:

¹⁸ Self-insurance, or other variations from the insurance provisions set forth in this form, may be allowed in certain situations for certain counterparties, within the discretion of the City, after consultation with the City's risk management staff.

- (a) be obtained from and issued by an insurance company that is duly licensed or authorized to conduct business in the Province of British Columbia;
 - (b) contain a provision that the coverage afforded will not be cancelled or reduced without the insurance company giving at least *[sixty / thirty]* (*[60 / 30]*) days' prior written notice by registered mail to the Lessor; and
 - (c) be primary with respect to claims or losses arising out of the Licensee's operations and activities, such that any insurance or self-insurance maintained by the Lessor shall be in excess of such insurance required by Section 16.1 and shall not contribute with it.
- 16.3 Immediately upon the execution of this Agreement, the Licensee shall provide evidence satisfactory to the Lessor of each policy of insurance required by Section 16.1.
- 17.0 SUITABILITY OF LOCATIONS**
- 17.1 The Lessor shall permit the Licensee and its contractors reasonable access, as is necessary, to the City Property, in advance of the installation of any item pursuant to Section 2.0, for the purpose of satisfying itself, at its own expense, as to the appropriate conditions for its intended use of the License Area, provided that the Licensee shall repair any damage caused by any test or inspections.
- 17.2 The Lessor makes no representations or warranties with respect to the suitability of the City Property or the License Area for any installation, activity or purpose whatever, or with respect to the existence of any hazardous substances or conditions on the City Property or the License Area, and the Licensee shall not bring on to the City Property any hazardous substances and is responsible for any substances or conditions on the City Property which result from activities of the Licensee. The Licensee is not responsible for any hazardous substances or conditions pre-existing on the City Property.
- 17.3 "Hazardous substances" means, for the purposes of this Section 16.2, any deleterious, dangerous, hazardous, corrosive or toxic substances, pollutants, goods or waste the manufacture, storage, handling, treatment, generation, use or transport or release, disposal or discharge into the environment of which any environmental laws control, regulate, license or prohibit or which are or may be deleterious, dangerous or hazardous to human, animal or plant health or life or the environment.
- 18.0 RELOCATION**
- 18.1 The Licensee shall, at its own expense and at no cost to the Lessor, within 30 days of written notice from the Lessor (or such shorter period of notice as is practical in the case of an emergency involving a material threat to persons or property) at any time during the Term, relocate any portion of its Equipment cited in such notice to a different Lessor property, as required by the Lessor acting reasonably (including, without limitation, due to a Lessor project or construction requirement), and shall restore the relevant portion of the License Area to a condition substantially equivalent to its original condition. A failure to relocate Equipment pursuant to this section shall be deemed to be a material default under this Agreement.
- 18.2 The reasonable, documented cost of relocation of Equipment pursuant to Section 18.1 shall be recorded as a non-refundable credit against the Annual License Amounts payable hereunder, thereby relieving the Licensee of the requirement to make subsequent payments to the

Licensor otherwise due hereunder, in an aggregate amount equal to such reasonable, documented cost.

- 18.3 Following the relocation of Equipment by the Licensee pursuant to Section 18.1, the Licensor's property on which the relevant Equipment has been relocated shall be deemed to constitute City Property for purposes of this Agreement.
- 18.4 This Agreement will apply to the installation of the Equipment at the new Licensor property referred to in section 18.1 and 18.2 as if it were originally contemplated hereby. [*The new Licensor property referred to in section 18.1 and 18.2 may be a new street pole to be installed by the Licensee, in which case the provisions of this Agreement shall apply to such street pole as if it were originally referred to in Section 2.1(c).*]

19.0 LICENSEE COVENANTS

- 19.1 During the Term, the Licensee shall:

- (a) use the City Property and install, maintain and operate the Equipment in compliance with all applicable laws, by-laws, rules and regulations of the appropriate jurisdictions pertaining to telecommunications equipment, the environment, health, welfare and occupational safety;
- (b) be the "prime contractor" (as defined in the *Workers Compensation Act*) for WorkSafeBC purposes in respect of the work performed by or on behalf of the Licensee on the City Property and accept all responsibilities of the prime contractor as outlined in the Licensor's current Multiple-Employer Workplace/Contractor Coordination program, the *Workers Compensation Act* (Part 3) and the WorkSafeBC *Occupational Health & Safety Regulation*, except that the Licensee may, with the Licensor's approval, engage a contractor to perform work and cause such contractor to agree to act as the prime contractor, provided that the Licensee shall not be relieved of its obligations to the Licensor under this Section 19.1(b);
- (c) ensure that all required payments are made with respect to the work performed hereunder, including, without limitation, WorkSafeBC assessments, mandatory pension contributions, employment insurance premia and federal and provincial taxes;
- (d) provide to the Licensor, free of charge, documentary guidelines for Licensor employees working around the Equipment;
- (e) at its expense, take such steps as are necessary, including removal of Equipment if required, to prevent any interference with, or adverse effects on the frequencies of any equipment on the City Property installed prior to the Equipment or belonging to any existing users of the City Property prior to the date of installation of the Equipment by the Licensee. For greater certainty, the Licensee shall not be responsible for or be required to remove any of the Equipment if any interference is caused by, related to or is impacting upon any subsequently installed telecommunication equipment and belonging to any subsequent licensees or users of the City Property, or any portion thereof, as may be permitted to be installed at any time hereafter by the Licensor;
- (f) ensure that the Equipment must not have a material negative impact on the operation of any improvements on the City Property and not block access to or in any way

- obstruct, interfere with or hinder the use of the City Property unless expressly authorized by the Lessor;
- (g) not commit or permit to be committed any waste upon the City Property or a nuisance or other conditions that may unreasonably disturb any member of the public and ensure that no garbage, refuse or other things other than the Equipment are left by the Licensee or its contractors or agents on or about the City Property, and that, at all times after the Licensee carries out any activities whatsoever on the City Property pursuant to this Agreement, it leaves the City Property in a neat, tidy, clean and safe condition;
 - (h) promptly notify the Lessor of any change in the Licensee's regulatory status;
 - (i) not change the purpose for which the Equipment is used without the prior written agreement of the Lessor;
 - (j) label each item of Equipment placed on the City Property with identification information including, but not limited to, the name of the Licensee and any other information as may be required by the Lessor, acting reasonably; provided that if the Licensee fails to label Equipment in accordance with the foregoing, the Lessor shall be entitled to retain the services of a reputable third-party contractor to conduct such labelling and the costs of same shall be paid for by the Licensee forthwith upon receipt of the invoice from the Lessor; and
 - (k) not cause any excessive or objectionable levels of noise, as determined by the Lessor acting reasonably, during the installation, repair or replacement of the Equipment, and not allow any audible noise to be emitted by the Equipment at any other time during the Term.

20.0 DAMAGE AND DESTRUCTION

- 20.1 If, due to damage to or destruction of, or removal of, City Property, the License Area becomes unavailable to the Licensee and the Lessor does not repair or replace its City Property within a reasonable period of time, the Licensee may terminate this Agreement pursuant to Section 14.1. (For the avoidance of doubt, this Section 20.1 shall not give rise to any obligations for the Licensee to repair or replace any City Property (but without prejudice to any such obligations arising under other sections of this Agreement).)
- 20.2 The Lessor shall not be responsible for any claims resulting from any lightning or other electrical current passing through the City Property, License Area or facilities that causes any damage to Equipment or results in the interruption of any service by the Licensee.

21.0 MISCELLANEOUS

- 21.1 No interest in land. No leasehold interest shall pass to or be vested in the Licensee by virtue of this Agreement.
- 21.2 No Derogation. Nothing contained or implied in this Agreement shall derogate from the obligations of the Licensee under any other agreement with the Lessor or prejudice or affect the Lessor's rights, powers, duties or obligations in the exercise of its functions pursuant to the *Vancouver Charter* as amended from time to time and the rights, powers, duties and obligations of the Lessor under all public and private statutes, by-laws, orders and

regulations, which may be as fully and effectively exercised in relation to the City Property as if this Agreement had not been executed and delivered by the Licensee and the Lessor.

- 21.3 **Priority.** Notwithstanding any other provision hereof, the rights of the Licensee hereunder shall be limited or shall not apply to the extent they are inconsistent with the full exercise of the rights granted by the Lessor to another licensee in respect of the License Area, if any, under a contract dated before the date hereof, and the Licensee shall comply with all reasonable requests of any such other licensee in relation to the use of the License Area.
- 21.4 **Overholding.** If the Licensee remains in possession at the end of the final Renewal Term with the written consent of the Lessor, this License shall continue on a monthly basis at the then current Annual License Amount until the Licensee receives 30 days' written notice that it is required to remove the Equipment in accordance with Section 8.0 herein;
- 21.5 **Authority.** Each party represents and warrants that it has full authority to enter into and sign this Agreement and bind itself accordingly.
- 21.6 **Schedules.** The schedules attached to this Agreement form a part of this Agreement and any obligation imposed on the Licensee in such a schedule shall be deemed to be a covenant of the Licensee in this Agreement. To the extent that there is an inconsistency between the terms and conditions of this Agreement and anything in such schedules, the terms and conditions of this Agreement shall prevail only to the extent of the conflict.
- 21.7 **Entire Agreement.** This Agreement contains all agreements, promises and understandings between the Lessor and the Licensee in relation to the subject matter hereof.
- 21.8 **Enurement.** The terms and conditions of this Agreement shall enure and bind the successors and assigns of the Lessor and the Licensee.
- 21.9 **Severability.** Invalid provisions are severable and do not impair the validity of the balance of this Agreement.
- 21.10 **Payment.** The Licensee's obligations to pay money under this Agreement are additional to, and not in substitution for, all other amounts payable by the Licensee to the Lessor by separate agreement or bylaw.
- 21.11 **Governing Law.** This Agreement shall be governed by the laws of the Province of British Columbia and the laws of Canada applicable therein, and the parties hereby submit to the jurisdiction of the courts of British Columbia.
- 21.12 **Time of the Essence.** Time shall be of the essence of this Agreement.
- 21.13 **Counterparts.** This Agreement may be executed in one or more counterparts each of which shall constitute an original and together shall constitute one and the same Agreement. This Agreement may be executed by the parties and transmitted electronically or by facsimile and if so executed and transmitted, this Agreement shall be for all purposes as effective as if the parties had delivered an executed original Agreement

DATED this ___, day of _____, 20___.

CITY OF VANCOUVER
by its authorized signatories:

Signature

Print Name and Title

Signature

Print Name and Title

[LEGAL NAME OF LICENSEE]
by its authorized signatories:

Signature

Print Name and Title

Signature

Print Name and Title

We have authority to bind the Licensee.

CITY OF VANCOUVER STREET POLE AGREEMENT

SCHEDULE "A" - DESCRIPTIONS AND DRAWINGS OF
LOCATIONS, STREET POLES AND EQUIPMENT

[ADD]

[DESCRIBE EQUIPMENT TO BE OWNED BY THE CITY (E.G., POLES OR AMENITIES) UNDER A SEPARATE HEADING.]

[STATE SPECIFICATIONS FOR POLES THAT MEET CITY REQUIREMENTS FOR LIGHTS, BANNERS, SIGNS, ETC.]

CITY OF VANCOUVER STREET POLE AGREEMENT

SCHEDULE "B" - DRAWINGS

[To be added.]

City of Vancouver Duct License Rate Sheet (Provisional Rates)

Duct License (outside diameter of cable is limited to 24mm)

Standard Rate

\$8.00 per meter per year

Drop Cable in City Duct (drop cable is defined as a cable with a fiber count of 6 fibres or less)

\$2.25 per meter per year

Note: The City reserves the right to place cable in City-owned duct space.



City of Vancouver G-COMM System: Third Party Use

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City of Vancouver G-COMM System: Third Party Use

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Overview/Executive Summary

The City of Vancouver Utilities Department made a request to *Way West* Telecom Consultants LTD. to complete an analysis on the lease and operation of ducts for telecom purpose in the area of the Southeast False Creek development (SEFC) formerly known as the Vancouver Olympic Athletes Village. This analysis is intended to provide insight into the feasibility of operating the current location as well as the build of future locations of City owned duct facilities. Requirements of the analysis are to research and provide information and recommendation on the economic, political and regulatory environment that may have an impact on the City in regards to operating, managing and expanding G-Comm within the confines of the structure of City Hall. Also, this analysis is to provide recommendations regarding the terms and conditions for the use of G-Comm as well as duct lease models and rates. These recommendations would be based on review of CRTC rulings and current industry protocols that are in use. Said findings will be used to structure and provide insight on how to best manage the G-Comm asset with respect to the resources and skills the City would require to effectively manage G-Comm. Recommendation to be inclusive of which City department should be accountable for G-Comm and the resulting opportunities available to the City for leveraging this investment.

There are many different models and cost analysis pertaining to duct facilities with regards to fiber to the node, fiber to the home and last mile access. This analysis looks at the current state of the telecom market in Vancouver in regards to duct lease models/scenarios and the existing companies that provide Telco and cable services. These companies, being federally and provincially regulated, have different requirements and accountabilities that need to be taken into consideration when comparing the City's interest in duct lease and operation.

Generally, the use of common trench or joint build between service providers is a more economical and environmentally beneficial way to gain access to end users. This method of implementation not only reduces the cost of ownership, it enables service provider's access quickly and efficiently which lends itself to more competition which in turn should lower costs to benefit the end users. The benefit to the City is gaining access to the City locations requiring connectivity while reducing the operation and maintenance of the streets when open trenching is the only option for last mile access. Ultimately, a benefit to tax payers with positive optics for the City.

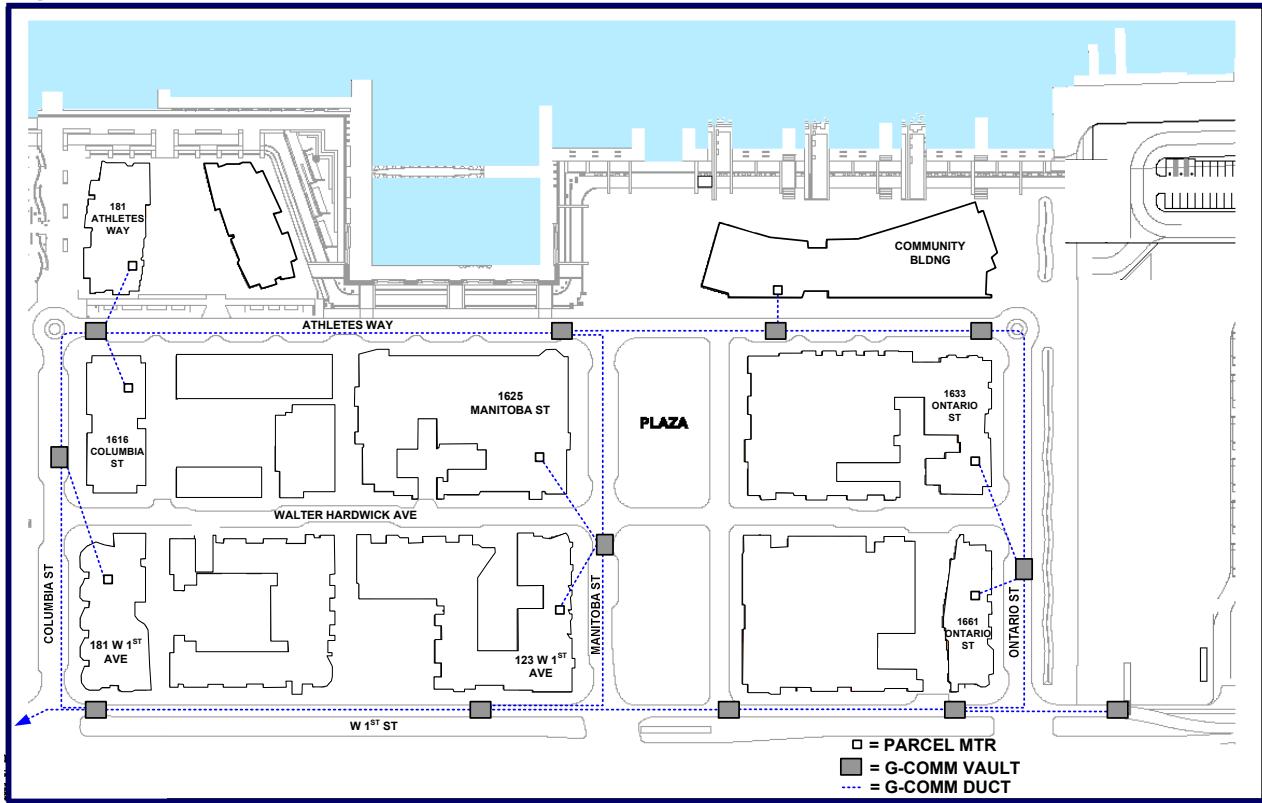
City of Vancouver G-COMM System: Third Party Use

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Introduction

The City of Vancouver G-Comm System is an underground duct and manhole facility built in the Southeast False Creek development (SEFC) formerly known as the Vancouver Olympic Athletes Village. This infrastructure was a joint build in cooperation with TELUS. It consists of approximately 800 meters of duct length in sections between manholes ranging from 5 to 21 ducts, each duct with a 100mm diameter. There are approximately 12 manholes (see Fig. I). The duct infrastructure was used for connectivity during the Vancouver 2010 Winter Olympics and Paralympics to the development that housed the Olympic athletes. The duct structure is now available to be used for connectivity to the end users in the development as the units are now being sold as residential properties.

Fig. I - G-COMM DUCT STRUCTURE



Summary of the economic, political and regulatory environment that may have an impact on the City in regards to operating, managing and expanding G-Comm

Economic

The City of Vancouver G-Comm System is built similar to telecom and cable company infrastructure. This would lend itself to be aimed at the telecom/cable industry in Vancouver. The telecom industry is currently made up of the Telco's, cable companies and new entrants that provide various telecom and cable services to residential and commercial clients. Telco's would include incumbent local exchange carriers (ILECs) like TELUS as well as the competitive local exchange carriers (CLEC) such as Bell in the West, All Stream, Novus Communications, etc.

The local Cable incumbent is Shaw Cable.

These companies all look to deliver combinations and packages of residential and commercial services. These services include, telephone, internet, TV, Data and Collocation services. With the bundling of services, the bandwidth requirement is typically out of reach for services provided by traditional copper cable facilities. The typical cable facility builds today are fiber optic backbone cable terminating on equipment in a building or outdoor enclosure as close to the perspective end user as possible with copper or fiber used as the "last mile" connectivity.

The wireless industry brings another opportunity to the table with existing and new wireless companies requiring large bandwidth to towers and antenna locations to reach as many potential clients as possible. With the new hand held devices and numerous applications and wireless services available to clients, the move to have fiber and copper cable facilities closer to the clients is now a reality. Wireless companies would include the Telco's noted above as well as Rogers wireless and new entrants to the wireless industry such as Wind, Mobilicity and Shaw.

The use of a common infrastructure would be a benefit to the end users as it would promote competition by service providers into the area when a cost effective last mile is available for service provider use.

Political

This document looks at the lease of duct to potential clients such as Telco's and Cable co's. It does not take into consideration the regulating whether federally or provincially of these companies with respect to access to City streets for their own duct builds.

With the current amount of duct the City has to offer on this initial review, approximately 800 meters in the SEFC Olympic Athletes Village development, this should have little affect politically to the City. The main driver for completing a build of this nature for use by other parties is to keep disruption and maintenance to a minimum on the digging up and repairing of the streets for duct access right of way by third parties. This would be a benefit to City tax payers in keeping engineering and operating costs to a minimum. With alternate providers of duct in the

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development, access to the end users should not be of consequence. If the City was the only duct access provider in the development, this would have a larger impact politically. The City may possibly come under scrutiny in the event access was denied or the cost for leasing the ducts was not viewed as fair market price. This would also be evaluated in the Regulatory arena.

Regulatory

The City should consult its counsel on CRTC jurisdiction with respect to telecom access to the public rights of way and issues regarding Telecom Carriers access to City owned support structures. It should be noted that Section 43 (5) of the Telecommunications Act refers to access to support structures. The City of Vancouver has traditionally been very involved in past CRTC Part VII proceedings and is very well acquainted with the issues of the access rights of telecommunication carriers. The City will need to draw its own conclusions regarding various decisions by the courts and the CRTC including the City's own Part VII applications as example MTS Allstream Inc. – Application regarding a Municipal Access Agreement with the City of Vancouver Telecom Regulatory Policy CRTC 2009-150 as well as other cases such as (MTS vs Supreme Court of Canada, Barrie Public Utilities v. Canadian Cable Television Assn. [2003] and MTS Part VII Application by Allstream Corp. seeking access to Light Rail Transit (LRT) lands in the City of Edmonton Telecom Decision CRTC 2005-36

Despite the issues of access there is no requirement that support structures (duct, manholes, poles etc.) be owned by telecom carriers even if they are used for telecommunication purposes. Consequently rates can be set by the owner of the infrastructure at what should be considered fair market rental or lease fees or alternatively through a causal cost formula that would be consistent with decisions made by the courts or CRTC regarding rate formulas. Again this would be determined based on the City's perspective on the various rulings and decisions

An example of a municipally owned support structure system is the Commission des services électriques de la Ville de Montréal (CSEM) that is an organization within the City of Montreal that plans, constructs, maintains and manages buried conduits for power lines and telecommunications cables within the Montréal's territory. The CSEM sets consistent published rates for duct rental to all carriers. It should also be noted that the CRTC does regulate the Incumbent Local Exchange Carrier's (ILEC) on access to their own support structures within the ILEC territory through tariff rates and guidelines for access. As an example Telus in BC is the ILEC and is regulated on its owned support structures by the CRTC through a tariff rate which is currently set at \$2.25 per 30 meters of duct.

The Telus specific ILEC rate model is shown below and could form the basis of a competitive rate assuming Telus has surplus support structure in the same trench. As stated and based on the City's perspective on regulatory decisions, a cost model formula could be applied to recover the causal cost of the construction of the support structures.

The CRTC has some jurisdiction over access by the telecom but not rates and agreements, depending on who the provider party is and how they are regulated. The CRTC gets involved where the request relates to an unreasonable refusal for access by a federally regulated telecom as found in section 42 and 43 of the Telecom Act as well as Support Structure in Part VII proceedings. Note that Power companies leasing duct are typically provincially regulated unless they cross provincial boundaries and are not regulated the same.

Many disputes are about "fair market" price. "Fair" depends on your perspective as the owner or licensee. "Market" is hard to define when something is so limited, unique and thinly traded. "Fair market" is even harder to determine. The CRTC reviewed cost studies and created formulas based on sunk costs, apportionments and allowable direct and indirect costs. The best measure of those is in the recent SSA proceeding before the CRTC which started in the Fall of 2008.

A formula of note is to apportion the sunk costs and divide it by the number of potential users and spread it out over an amortization period/depreciation period. The sunk costs can include the cost of money but should not include "opportunity costs". The Owner of the duct is included as a user of the duct in this analysis. Although other formulas can be used to derive at a cost for duct lease, a fair value based on existing similar duct owners fees and what the market will bear can also be used.

Recommendations regarding the terms and conditions for the use of G-Comm, and duct lease models and rates.

Terms and Conditions of G-Comm Duct use:

I) Current Support Structure Agreement Terms & Conditions Examples

Support Structure License Agreement (SSA) would need to be developed for use between the City and perspective licensee's. Terms and conditions would include common contract language and would get into specifics on the intended use of the duct, access, maintenance and emergency restoration and repair.

The City's of Calgary and Montreal lease duct through their owned power utilities. Calgary owns ENMAX and its subsidiary Envision and Montreal has the CSEM. They lease duct to licensees throughout the City area opening up access to a large commercial and some residential areas. Their model for the lease of duct, placing of cable and the access to manholes for the removal of splice cases is all done by the City power utility. The licensee can only access the splice case once out of the manhole and into a maintenance vehicle or splice truck. Maintenance and emergency call out in the event of a cable trouble is managed through the existing power utility help desks for 24x7 coverage. Fiber cable is placed with electrical cables so the licensee must use the power utility technicians for access to a power/communications manhole. They provide access to a large area

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that they also use for their own infrastructure. Their operations and maintenance exists for their own operation and the duct lease model is a value add in regard to capturing 3rd party revenues.

BC Hydro on the other hand allows 3rd party cable placing by approved contractors as long as a BC Hydro representative or approved electrical contractor provides standby and safety watch. This process is the same for splice case access in manhole applications. The BC Hydro model of operation is similar to the process used by other power utilities as noted in this document.

2) Duct Lease Models and Rates Examples

Regulated Examples: Typical Duct Lease Models and Rates under Tariff

NOTE: ILEC rates are regulated by the Canadian Radio – television and Telecommunications Commission (CRTC).

2.1) ILEC Rates (TELUS)

The current duct lease under tariff for typical duct leased by TELUS is \$2.25 per 30 meters of duct. Reinstated, effective February 17, 2000, following Conduit-type definitions and rates in B.C. per Telecom Decision CRTC 2003-54:

Type A Conduit – conduit that is supplied, installed, owned and maintained entirely by and at the expense of the Company.

Type B Conduit – conduit that is supplied, owned and maintained by and at the expense of the Company, but installed by the Company at the expense of the developer. This duct is generally located in subdivisions and placed prior to the “Policy – Underground Servicing” of 81 01 01 (revised 83 08 31).

Type C Conduit – conduit that is owned and maintained by and at the expense of the Company, but supplied and installed by the Company at the expense of the developer. This duct is generally located in subdivisions and placed prior to the “Policy- Underground Servicing” of 81 01 01 (revised 83 08 31). Type C Conduit applies only in areas formerly served by the Okanagan Telephone Company.

Type D Conduit – conduit that is owned by the Company, but supplied and installed at the expense of the developer, under the “Policy – Underground Servicing” of 81 01 01 (revised 83 08 31)

Fig. 2 - TELUS Duct rental rates in BC (tariff)

(B.C. only)	Monthly Conduit Rental Unit Rate (per 30 metre of duct)
Type A	\$2.25
Type B	\$1.61
Type C	\$0.69
Type D *	\$1.12

*Rates apply to Conduit installed after 81/01/01 under the revised construction policy, but excluding service entrance ducts.

TELUS has filed for an increase to the existing duct lease rate to the CRTC.

Non-Regulated Examples: Typical Duct Lease Models and Rates not under Tariff

2.2) CLEC Rates (Bell in the West, All Stream, Urban Networks)

CLEC's do not fall into the same category as ILEC telco's and are not regulated as such for costs per meter of duct. Some CLEC's, such as Urban Networks, will lease fiber in a joint sheath as opposed to duct. CLEC duct lease rates are generally set by industry market value, based on conduit availability and opportunity.

2.3) BC Hydro**

Variable rate, the more you place in BCHydro duct the less the cost is per meter – approximately \$3.60 - \$7/m

2.4) ENMAX (Calgary)**

Depending on client leasing duct and agreement signing date. Approximately \$6 per meter with increases in per meter cost on annual increments, i.e. 3, 5, or 10 year terms.

2.5) Ministry of Transportation & Hwys**

\$2 in duct along roadways, \$3 for duct over bridges but also depends on the agreement in place for exact numbers.

2.6) Montreal CSEM**

Rates vary between \$3 and \$5 with progressive escalation of rates per year for the length of the contract.

Currently, there are several other service delivery models that exploit using communications duct to reach end users in residential developments. One model is Developers building the entire communications and power infrastructure in a large development and having the service providers come to a demarcation point on the development property line. The developer would then purchase bulk services from the service providers and use their own equipment and infrastructure from the service provider demarcation point to the end user. The developer would then invoice the end users for the services which could be bundled services containing telephone, TV, internet, etc.

Another model has the developer building the infrastructure but then has the service providers use the infrastructure to service the end clients. Some models use this as a value add for selling real estate property in the development with no charge to the service provider but keeps the street disruption to a minimum for maintenance and operations. The service providers do all the operation and maintenance on the cable and equipment facilities at their cost and the developer maintains the duct and manhole system at their cost. There could be revenue sharing opportunities between the developer and the service providers.

Other studies on costs to reach the end user detail the savings that can be found when shared trenching is used. These studies suggest that up to 80% of the costs for deployment are in the initial build of the duct and manhole infrastructure. Sharing a common trench with other parties

* *Duct Lease costs are approximate and differ based on specific Licensee agreements with the provider.

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interested in an infrastructure build has its hurdles as well. All parties will need to have a common interest in the location and method of build as well as common planning cycles and access to capital to complete the build at the same time. This would be similar to the city joint build with TELUS for the SEFC infrastructure completion. The more interested parties involved, the lower your cost of ownership.

Current SEFC duct model

The SEFC model being last mile connectivity to a particular development, has a low return on 3rd party revenues. Taking into consideration the direct competition for duct lease with the incumbent Telco and power utility as well as the low number of service providers in the area that may request duct access, the opportunities for significant profit are limited. Duct lease costs would need to be close to the competitor's current rates for duct rental to be competitive. Other models that cover wider City areas are more appealing to service providers and meet the criteria for their financial and marketing models. The strong argument for completing a build such as the SEFC build is the future costs to the City in regard to operation and maintenance of the streets when open trenching is the only alternative for service providers to gain entry to the end users. Taking into consideration a joint build effort with other interested parties to lower the cost of ownership, this model may work depending on the City typical operating costs for the size of the area considered.

Future City Infrastructure Builds

On future City duct build considerations based on a similar model to the joint build SEFC development, a planned effort by all interested parties would be required to establish build requirements, time lines, costs and operations and maintenance savings by providing a single duct system for licensees and return on investment. It may be more cost effective to the City to have service providers join in the build with the City acting as a participant rather than a support structure provider. This would provide cost effective access to the City for their infrastructure and connectivity as well as an environmental benefit for joint use trenching, operation and maintenance. Although there are benefits to this model there would be further requirements on accountability and control of the infrastructure system.

Managing the G-Comm System

High level steps for management and operations of the G-Comm System would include:

- » The Request by the licensee for use of the system and specific A to Z points (Request Form)
- » An Agreement between the City and the licensee with specific terms as to the cost, use, access, term and approved installation, maintenance and emergency repair/restoration practice of the duct facilities and cables (Support Structure License Agreement)
- » Assignment by the City for the duct or ducts in sections requested by the licensee (Engineering Design/Permit)
- » Monitoring of the licensee installation by the City and verification that the assigned duct facilities used by the licensee are correct (City Field Inspection)
- » As built submittal by licensee to the City for the assigned duct facilities (Licensee As Built)
- » Update of City records for duct assignment (Duct Facility Management Software System)
- » Notification by City Records department to City Accounting/Billing department for licensee use of duct, distance and cost (City Operations)
- » City Accounting/Billing invoicing the licensee for use of duct system (City Accounting)
- » Emergency restoration and maintenance of the duct system by City Operations or contracted resources on a 24x7 basis. (Operations)

NOTE: Each of the points noted above would have operational processes that would need to be established for accountability, hand off within or to other departments at the City and process between the City and licensee. Current tools and software would need to be evaluated to see if it could be used or updated for use by G-COMM operations.

Resources and skills required to manage the G-Comm System:

- 1) Operational management of the G-Comm System including project management to facilitate application, inspection and verification of duct facility use by the licensee
- 2) Legal resources for the administration of master Support Structure Agreements and drafting appropriate templates.
- 3) Technical resources for the creation, revision and management of the duct and cable facility mapping software including duct assignment and available asset inventory.
- 4) Accounting resources for management of the billing records and invoicing of the licensee for initial engineering, inspection and application fees as well as yearly recurring billing for duct rental.
- 5) Maintenance resources in the event of adds, moves or changes to the duct system including emergency repair and restoration

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Should G-Comm reside in Engineering or IT?

Ownership or management of duct systems for communications facilities is always a grey area when the duct system is maintained by Engineering/Operations but used by IT for end user connectivity.

In telecom models at a high level, Sales and Planning drive the requirements for the build to end users. Engineering and Operations build and maintain the facilities. IT/Operations manage and operate the end equipment for client and/or company connectivity. A collaborative effort with many hand offs and accountabilities not to mention the other departments such as Finance, Legal, ROW's, Procurement, etc, and their input into the business model to deliver services.

The common dilemma, in regard to the City model, with the duct facilities now completed, may be of value to have IT manage the duct system and use Engineering and Operations as resources to maintain and operate the system. This would still need to be a collaborative effort on all parties to ensure budgets are established and managed on an annual basis. On the other hand, Engineering and Operations could manage the duct system and look at IT as a client in the duct system.

As this type of infrastructure build model tends to point towards leasing and managing ducts for 3rd parties and not for large amounts of City connectivity, this would lie outside of IT deliverables and the latter may take precedence with ownership and management of the duct system done by Engineering and Operations. There is typically a stronger relationship between Engineering and Operations as they operate in the same fields when it comes to managing infrastructure. IT focus is mainly on the end user connectivity with less regard on what route the cables and infrastructure take.

The City would need to evaluate the resources and financial accountability models currently used in house to come up with a clear direction based on the options noted.

Opportunities available to the City for leveraging this investment.

Competition to the City for leasing duct in the area of the SEFC is with TELUS and BC Hydro. TELUS being the incumbent telecom company and BC Hydro the incumbent power provider. These companies will typically build their own infrastructure to connect to buildings with potential clients. These entities work on the model of controlling their network infrastructure as much as possible with a long amortization period of payback for that infrastructure through the services provided to the end clients.

CLECs or Cable companies such as Shaw and AllStream primarily use TELUS duct and pole line for their infrastructure connectivity to clients. Others such as Novus or Urban Communications tend to go to BC Hydro, MOTH or Municipal duct where possible. Bell in the West uses a combination of all of the above to build out their fiber optic network. These companies will generally have a shorter amortization on payback of the infrastructure build and will tend to pin point particular clients while limiting the amount of infrastructure build as much as possible. Their models for marketing services work better on leasing infrastructure where possible rather than build depending on the distance of the client off their existing network. The farther off the network, the more likely to lease facilities than build facilities.

As the SEFC development is primarily a residential location with small commercial tenant availability, CLECs in the West would likely not look to deploy cable at this location as their marketing strategy is the commercial market. Residential market service providers such as TELUS, Shaw and Novus would likely build into this location as they have both residential and commercial service offerings to end clients.

Wireless companies may look at leasing duct to get to strategic tower or antenna locations within the SEFC area to provide wireless services to clients within and adjacent to the site. Clients may also be reached on wireless networks by towers and antennas outside of the SEFC development dependent upon the design and capabilities of the wireless signal to reach clients within the location.

With the G-Comm duct system accessing a large number of potential residential clients, Telco's and Cable co's have and will likely find the area of great interest for providing services. This would also be dependent on the sales fill rate of clients in the development. Service providers may wait until a certain percentage of the units are sold prior to deploying network and equipment into the new development.