CITY OF VANCOUVER

**ADMINISTRATIVE REPORT**

Report Date: July 9, 2013
Contact: Al Luongo
Contact No.: 604.873.7288
RTS No.: 10179
VanRIMS No.: 08-2000-20
Meeting Date: July 23, 2013

TO: Standing Committee on City Finance and Services

FROM: General Manager of Engineering Services

SUBJECT: Municipal Access Agreements for Surface In-lay Fibre/Micro-Trenching

## *RECOMMENDATION*

A. THAT the General Manager of Engineering Services and the Director of Legal Services be authorized to execute and deliver Municipal Access Agreements with Optic Zoo Networks Ltd., TeraGo Networks Inc., Teraspan Networks Inc., Globility Communications Corporation, Telus Communications Company, Bell Canada Inc. and Rogers Communications Inc., to permit the companies to install and use micro-trenching and surface inlaid fibre optic cable technology in City streets, as set out in this report, and such other terms and conditions satisfactory to the General Manager of Engineering Services and the Director of Legal Services.

B. THAT no legal rights or obligations will arise or be created by Council's adoption of Recommendation A unless and until all legal documentation has been executed and delivered by the respective parties.

## *REPORT SUMMARY*

This report seeks Council's approval to enter into a Municipal Access Agreement with each of Optic Zoo Networks Ltd. ("Optic Zoo"), TeraGo Networks Inc. ("TeraGo"), Teraspan Networks Inc. ("Teraspan"), Globility Communications Corporation ("Globility") , Telus Communications Company ("Telus"), Bell Canada Inc. ("Bell") and Rogers Communications Inc. ("Rogers") specifically for the installation of equipment using a non-conventional construction process. Utility companies are typically permitted to build using conventional construction trenching methods and operate telecommunications networks within the City streets under the Street Utilities By-law, or on the terms and conditions established in the City's standard Municipal Access Agreement. While the City's preference is to grant access under the Street Utilities By-law, the non-conventional construction process using micro-trenching and surface inlaid fibre

optic cable technology, as proposed by the above companies, is not covered under the By-law. The City is strongly committed to the equitable treatment of all utility companies wishing to access City streets and as such, the provisions dealing with surface inlaid fibre in existing Municipal Access Agreements with Novus Entertainment Inc., A2B Fibre Inc. and Teraspan would serve as a template for any new Municipal Access Agreement permitting surface inlaid fibre construction.

## *COUNCIL AUTHORITY/PREVIOUS DECISIONS*

Where Council's pre-existing standing authority for the execution of contracts by City staff is not applicable, specific Council authorization is required. Section 290 of the *Vancouver Charter* provides that no person may excavate in or damage a street except under terms and conditions imposed by Council. Council has permitted utility companies access to City streets, to build and operate equipment, under terms and conditions established in the Street Utilities By-law or in a Municipal Access Agreement.

## *CITY MANAGER'S/GENERAL MANAGER'S COMMENTS*

The General Manager of Engineering Services RECOMMENDS approval of A and B.

## *REPORT*

This report seeks Council's approval to enter into a Municipal Access Agreement with each of OpticZoo, TeraGo, Teraspan, Globility, Telus, Bell and Rogers to permit each of them to build and operate a telecommunications network in the streets of Vancouver utilizing two types of installation, surface inlaid fibre optic cable and micro-trenching technology on the terms generally as described in this report.

### *Background/Context*

On October 18, 2011, Council enacted the Street Utilities By-law to regulate all utilities in City streets using conventional trench and duct construction processes. As surface inlaid fibre and micro-trenching technology are relatively newer and significantly different processes than conventional trench and duct construction, they are not captured under the Street Utilities Bylaw.

Surface inlaid fibre and micro-trenching involve narrow saw cuts up to 300 millimeters (12 inches) deep in the sidewalk/roadway in which small conduits and micro-ducts containing fibre optic cable are placed and filled with a sealant. From the City's perspective, this process has a number of benefits such as avoiding the detrimental impacts to our streets caused by conventional trenching methods.

Additionally, while most telecom companies are utilizing conventional trench and duct construction, the City has had an agreement with one company since 1999 for surface inlaid fibre and on September 30, 2008 and January 20, 2009, Council authorized entering into agreements with two further companies permitting them to utilize this technology.

***Strategic Analysis***

Staff have been approached by several new telecommunications companies seeking to build and operate a telecommunications network in the City of Vancouver utilizing both conventional trench and duct and surface inlaid fibre and micro-trench technologies and they are seeking similar arrangements to those granted their competitors, a request with which staff agree.

Conventional Trench and Duct Construction

For the use of conventional trench and duct construction, we recommend continuing our practice of using the Street Utilities By-law or returning to Council for approval to enter into the City's standard Municipal Access Agreement.

Non-Conventional Construction

For surface inlaid fibre and micro-trench installations, which involve the small diameter fibre optic cable and micro-duct inserted into a slot saw-cut into the pavement/sidewalk, rather than having a complete underground duct system installed three feet below grade, staff are recommending that the City entering into a Municipal Access Agreement (Surface Inlaid Fibre) for provisions that deal specifically with surface inlaid fibre.

The advantages of using this technology, in preference to the conventional construction are:

- Less disruption during construction, particularly with specialty pavements
- Significantly less costly to install
- Less pavement degradation damage

However, there are also some significant disadvantages, including:

- Vulnerability to damage due to adjacent construction activity, particularly if the pavement containing the surface inlaid fibre needs to be removed to get access to the utilities below
- Relatively fragile to damage

In recognition of the relative vulnerability of surface inlaid fibre to damage by City forces conducting our normal maintenance and construction activity on the streets, the Municipal Access Agreement for the use of surface inlaid fibre includes language that relieves the City from any liability from damage to surface inlaid fibre or micro-trench equipment. There have been several incidents where such damage has occurred.

Additionally, concern has been raised about the relationship between the companies utilizing surface inlaid fibre and micro-trenching and the other underground utilities such as BCHydro and FortisBC. While the benefits of this lower cost system will accrue to the companies utilizing surface inlaid fibre, some of the extra costs or contingent costs will accrue to the other utility companies that must utilize City streets.

To deal with this imbalance in benefits and costs, we have looked at two options.

The first is to stop permitting the use of surface inlaid fibre. While this might result in the least conflict between surface and underground utilities, we believe that the benefits of lower cost and lower disruption for surface inlaid fibre are worth attempting to preserve the method.

The second option is the one that has been used in the past – entering into an Municipal Access Agreement with specific provisions dealing with surface inlaid fibre, including conditions on the use of surface inlaid fibre to guide the relationship between a company using surface inlaid fibre and other utilities. The company installing surface inlaid fibre or micro-trenching will be exempted from the Street Utilities By-law with respect only to the subject matter of the Municipal Access Agreement, i.e., the installation and use of surface inlaid fibre or micro-trenching.

The Municipal Access Agreement would include the following:

- provisions to protect the City from any cost or liability due to the presence of surface inlaid fibre;
- a provision allowing cancellation of the Municipal Access Agreement by either party on 180 days notice;
- provisions to protect underground utilities who must work around surface inlaid fibre, by providing that if an underground utility gives adequate notice (three working days), the company installing surface inlaid fibre would protect, move or remove their fibre or live with the consequences of damage;
- the appropriate fees for cost recovery applied to all telecommunications companies as outlined in the Street Utilities By-Law (unless the company is exempted from such by-law because it has entered into the City's standard Municipal Access Agreement), plus the usual administrative requirements such as submission and approval of plan and as-built drawings. The fees would initially be as follows:
  - "Plan Review and Administration Fee": $624.76 for a proposed alignment length of 20m or shorter, $1874.28 for a proposed alignment length of greater than 20m; together with a fee of $12.50 per metre of the total length of the alignment;
  - "Inspection Fee": $81.22 per block under construction per day;
  - the fees would be adjusted annually, such adjustment to be the then applicable fees and charges set out in the Street Utilities By-law.
  - provisions requiring the company installing surface inlaid fibre to restore the road surface in compliance with City standards and practices including regular inspection, notification and repair of any deficiencies for a determined period of time.
  - provisions for street degradation costs to protect the City against costly maintenance to maintain the long-term performance of a pavement structure.

***Implications/Related Issues/Risk (if applicable)***

***Financial***

The City will recover the following costs from the company:

- "Plan Review and Administration Fee": $624.76 for a proposed alignment length of 20m or shorter, $1874.28 for a proposed alignment length of greater than 20m; together with a fee of $12.50 per metre of the total length of the alignment;
- "Inspection Fee": $81.22 per block under construction per day; and

- "Pavement Degradation Costs": any future maintenance activities completed by the City on behalf of the company to remedy the defects and deficiencies as deemed appropriate by the City Engineer.

The fees would be adjusted annually, such adjustment to be the then applicable fees and charges set out in the Street Utilities By-law and would be subject to a City overhead of 20%. It is anticipated that Plan Reviews, Administration and Inspections will be performed by existing resources and therefore, no additional operating costs are expected.

***CONCLUSION***

Staff recommends that Council approve entering into a Municipal Access Agreement (Surface Inlaid Fibre) with each of Optic Zoo, TeraGo, Teraspan, Globility, Telus, Bell and Rogers as generally described in this report to permit each of them to install and use both surface inlaid fibre optic cable and micro-trenching technology in the City streets.

* * * * *