



## ADMINISTRATIVE REPORT

Report Date: April 5, 2016  
Contact: Al Luongo  
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RTS No.: 11394  
VanRIMS No.: 08-2000-20  
Meeting Date: May 3, 2016

TO: Vancouver City Council  
FROM: General Manager of Engineering Services  
SUBJECT: Municipal Access Agreements for Surface Inlay Fibre and 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 Shaw Cablesystems Ltd., Urban Networks Inc., Allstream Inc., Novus Entertainment Inc., Vitreo Networks Ltd., and Lite Access Technologies 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 or B 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 Municipal Access Agreements with Shaw Cablesystems Ltd. ("Shaw"), Urban Networks Inc. ("Urban"), Allstream Inc. ("Allstream"), Novus Entertainment Inc. ("Novus") Vitreo Networks Ltd. ("Vitreo") and Lite Access Technologies Inc. ("Lite Access"). 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 terms and conditions established in a Municipal Access Agreement ("MAA"). While the City's preference is to grant access under the Street's Utilities By-law, this type of non-conventional construction process 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, existing MAA's with other Utility Companies will serve as a template.

### ***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 Municipal Access Agreements.

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

The General Manager of Engineering Services RECOMMENDS approval of the foregoing recommendations.

### ***REPORT***

This report seeks Council's approval to enter into Municipal Access Agreements ("MAA's") with Shaw Cablesystems Ltd. ("Shaw"), Urban Networks Inc. ("Urban"), Allstream Inc. ("Allstream"), Novus Entertainment Inc. ("Novus"), Vitreo Networks Ltd. ("Vitreo") and Lite Access Technologies Inc. ("Lite Access") to permit them to build and operate a telecommunications network in the streets of Vancouver. They propose to utilize two types of installation, surface inlaid fibre optic cable and micro-trenching technology on terms generally as described in this report.

#### ***Background/Context***

On October 18, 2011, Council enacted the "Street Utilities By-law", which intended 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.

This effort also supports the City of Vancouver Digital Strategy by allowing service providers with alternative construction methods that are cost and time effective. With this method of fibre installation the City will be enabling new telecommunication providers to enter the market and expand their networks faster and allow existing service providers to expand into under-serviced areas. "SIF" and micro-trenching involves narrow saw cuts up to sixty millimeters (12") 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, Council approved the first "SIF" agreement with TeraSpan in 1999 and, on July 23, 2013, Council authorized entering into agreements with Optic Zoo Networks Ltd., Rogers Communications Inc., Telus Communications Company, TeraGo Networks Inc., Bell Canada Inc., Globility Communications Corporation and TeraSpan Networks Inc. all seeking to utilize this technology.

Surface inlaid fibre and micro-trenching technology have proven to be cost effective alternative methods of installing fibre optic cable into our streets allowing for a more competitive marketplace. These organizations, are in addition to the organizations approved in 2013, have approached the City wishing to enter into MAA's to allow them to remain competitive in the marketplace.

### *Strategic Analysis*

Since the last Report to Council on July 23, 2013, Staff has been approached by these additional six telecommunications companies seeking to build and operate a telecommunications network in the City of Vancouver utilizing SIF and micro-trench technologies. They are seeking the same MAA's as granted to their competitors in 2013, 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 negotiations for Municipal Access Agreements.

### Surface Inlaid Fibre

For Surface Inlaid Fibre and micro-trench installations, which involves 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 two feet below grade, we recommend entering into a Municipal Access Agreement.

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

- Less disruption during construction, particularly with specialty pavements
- Significantly less cost 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 to damage by construction forces conducting our normal maintenance and construction activity on the streets, the previous Municipal Access Agreement for the use of Surface Inlaid Fibre has included language that relieves the City and other construction forces 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-trench 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 with conventional construction methods.

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 are worth attempting to preserve the method.

The second option involves adding additional conditions on the use of Surface Inlaid Fibre to guide the relationship between a company using Surface Inlaid Fibre and other utilities. This would be accomplished by requiring the company installing Surface Inlaid Fibre to enter into a Municipal Access Agreement specifically for the use of Surface Inlaid Fibre and micro-trenching. 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 will include the following:

- provisions to protect the City from any cost or liability due to the presence of Surface Inlaid Fibre/Micro-Trenching;
- a provision allowing cancellation of the Municipal Access Agreement by either party on giving 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, which we have defined as 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 an MAA with the City), 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": \$642.40 for a proposed alignment length of 20m or shorter, \$1927.19 for a proposed alignment length of greater than 20m; together with a fee of \$12.85 per meter of the total length of the alignment;
  - "Inspection Fee": \$83.51 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 permit holder 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*

Revenues include cost recoveries of:

- “Plan Review and Administration Fee”: \$642.40 for a proposed alignment length of 20m or shorter, \$1927.19 for a proposed alignment length of greater than 20m; together with a fee of \$12.85 per metre of the total length of the alignment; and
- “Inspection Fee”: \$83.51 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 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**

In support of improving access to fibre-optic and improved communications infrastructure in the city, which support economic development and the Digital Strategy, Staff recommends that Council approve entering into legal agreements with Shaw Cablesystems Ltd. (“Shaw”), Urban Networks Inc. (“Urban”), Allstream Inc. (“Allstream”), Novus Entertainment Inc. (“Novus”), Vitreo Networks Ltd. (“Vitreo”) and Lite Access Technologies Inc. (“Lite Access”) as generally described in this report to permit them to install and use both Surface Inlaid Fibre optic cable and micro-trenching technology in the City streets.

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