

Date: April 22, 2009



**TO: Board Members – Vancouver Park Board**  
**FROM: General Manager – Parks and Recreation**  
**SUBJECT: David Lam Park -Pilot Drill Program**

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## RECOMMENDATIONS

- A. THAT the Board approve B.C. Transmission Corporation’s pilot horizontal directional drilling (HDD) program as outlined in this report, subject to all details and necessary contractual arrangements being to the satisfaction of the General Manager.*
- B. THAT subject to the pilot program being successful, the Board agrees in principle to the continuation of an electrical line underneath David Lam Park on the basis of HDD, with long term legal arrangements to be considered by the Board in 2010.*

## POLICY

The Board approves significant physical changes to parks.

## BACKGROUND

The B.C. Transmission Corporation (BCTC) in proposing to install a new substation and a new underground electrical transmission line at a total estimated cost of \$159 million to increase security of electricity supply and increase transmission capacity to the South False Creek area and is scheduled to be completed by late 2011. The project is referred to as the Vancouver City Central Transmission (VCCT) project. The proposed route from the Cathedral Square Substation to a new substation at 6<sup>th</sup> Avenue and Alberta Street is shown in Diagram 1. The power line is proposed to cross False Creek between David Lam and Charleson Parks, by way of an underground connection situated well below the surface of the park and False Creek.

The concept is to use the Horizontal Direction Drilling (HDD) process to underground the cable. The HDD operation would be set up in David Lam Park and the cable would emerge at 7<sup>th</sup> and Laurel Street. There would be no physical impact on Charleson Park, but a statutory right-of-way would have to be registered against the title of the property.

BCTC has conducted a comprehensive review to assess two potential routes (see Diagram 1). The review considered environmental impacts such as aquatic resources, archeological and cultural resources, socioeconomic resources, vegetation and wildlife resources as well as reliability/system planning, public input, City of Vancouver existing utilities, First Nations input, soil contamination and geotechnical considerations. Based on the analysis BCTC has concluded that the alternate route on the eastside of False Creek has appreciable geotechnical challenges because a greater portion of the line would travel through seismically unstable fill material rather than competent till and bedrock. It also provides a less reliable system and fewer system planning benefits from a power distribution perspective. Furthermore, uncertainty about the future street pattern in the area near Terminal and Quebec made the alternate route less attractive.

At the April 9<sup>th</sup> Planning and Environment Committee, BCTC provided extensive background information on the project and after hearing from delegations the Committee forwarded this matter to the Board for a decision.

## **DISCUSSION**

### Project Details

The specific proposal for 2009 is to undertake an exploratory pilot HDD to install a conduit from Pacific Boulevard towards the northern edge of False Creek as illustrated in Diagram 2. The purpose of the work is to assess feasibility of HDD for crossing False Creek.

An approximately 10,000 sq ft area of David Lam Park would be required to set the drill rig and its associated equipment (see Diagram 3) for a period of about 14 weeks this summer. Landscaping and site grading are estimated to take 3 weeks, actual drilling 36 to 48 days and park restoration 3 to 4 weeks. Drilling would take place up to 6 days a week and noise levels would be within the construction noise bylaw level of 85 dbA. There would be truck movements on Pacific Boulevard to set up, to take down and haul the material away. Disruptions to park visitors would be minimized through the following:

- the Pacific Boulevard sidewalk remains open
- walkway in park remains open
- playing field remains open
- no work will be performed on Sundays
- no work will be performed during special events
- visually screened work area with 8 ft safety fencing (see Diagram 4)
- restoration and re-vegetation of affected areas under the guidance of the Park board staff

If the pilot program is successful, the expectation is that the balance of the crossing would be drilled following the 2010 Winter Olympics, and the conduit and electrical cables installed. In considering this proposal the Board needs to acknowledge that if the pilot program is successful BCTC expects to carry on with the next stage of this project on this alignment, resulting in more HDD activity in David Lam Park during 2010.

If the pilot program is not successful BCTC would have to consider alternate means of crossing False Creek, perhaps by way of a conventional tunnel or by way of an alternate route. A tunnel option would potentially have more significant impact in the park since a tunnel boring machine would have to be brought on site. This alternative would require future consideration by the Board.

### Park Impacts

A successful outcome of this pilot HDD program and the installation of the entire line under David Lam Park and False Creek will have few if any, significant impacts on the long-term use and look of David Lam Park. One access manhole to an underground vault in the paved area near Pacific Boulevard would be the only visible aspect of the project.

The pilot drilling program is scheduled to take place during the busy summer season in the park. Unfortunately with the need to prepare David Lam Park for the 2010 Live Site event, work needs to be completed by the Fall of 2009.

BCTC has agreed not to undertake any drilling during the:

- a) Vancouver International Soccer Festival (June 27, 28)
- b) International Jazz Festival (July 4, 5)
- c) Roundhouse Community Centre picnic and movie nights (July 19, 26).

BCTC has further agreed to complete the program including park restoration to the satisfaction of the Board by September 30, 2009.

A small section of paving (approximately 800 sq ft) will have to be removed and replaced. There are five trees in the project area that will have to be removed and replaced at a later date. The City Arborist has assessed the trees for relocation but has concluded that because of their age, condition and the proximity of a concrete retaining wall these trees cannot be relocated and should be removed. BCTC is prepared to replace the trees immediately following the completion of the entire works.

### Consultation

BCTC has undertaken a broad program of consultation (see Appendix 1) and has worked out arrangements with both the Jazz Festival and the Soccer Tournament organizers.

BCTC has offered to contribute a significant amount to a nearby park project and staff have suggested that these funds go towards the Roundhouse Turntable Plaza. This would be a significant contribution towards that project. Should the balance of funding for the turntable not be forthcoming BCTC would want to select an alternate project. Prior to work starting, the General Manager will negotiate a Memorandum of Understanding with BCTC, which would cover the works, the contribution and legal arrangements.

## **SUMMARY**

The BCTC is preparing to construct a major new underground electrical line connecting the downtown with the area south of False Creek. BCTC proposes to undertake a pilot horizontal directional drilling program affecting David Lam Park during the Summer of 2009. Staff recommends approval of this program and further recommends that the Board approve in principle a continuation of the electrical line in 2010, should the pilot program prove to be successful.

Prepared by:

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