



**Proposal:** Development Variance Permit to permit the construction of a cellular telecommunications tower.

**Recommendation:** Approval to Proceed to Public Notification

**Location:** 961 - 176 Street      **Zoning:** A-1

**OCP Designation:** Agricultural

**LAP Designation:** Agricultural      **Owner:** K.S.C. Holdings Ltd.



## PROJECT TIMELINE

Completed Application Submission Date: October 20, 2006  
Application Revision & Re-submission Date: January 26, 2007  
Planning Report Date: February 26, 2007

## PROPOSAL

The applicant is proposing:

- a Development Variance Permit to relax the following by-law regulations:
  - Part 4 General Provisions of the Surrey Zoning By-law, 1993, No. 12000

in order to permit the development of a 50.0-metre (164 ft.) cellular telecommunication tower.

## RECOMMENDATION

The Planning & Development Department recommends that:

1. Council approve Development Variance Permit No. 7906-0461-00, (Appendix VI) varying Part 4 General Provisions of Surrey Zoning By-law, 1993, No. 12000, Section A.1.(a)ii.b. to proceed to Public Notification:
  - (a) to increase the maximum height of a telecommunication tower from 12.0 metres (40 ft.) to 50.0 metres (164 ft.).

## REFERRALS

Engineering: The Engineering Department has no objection to the project subject to the completion of Engineering servicing requirements as identified in the attached (Appendix III).

Ministry of Transportation: No concerns (Appendix V).

## SITE CHARACTERISTICS

- **Existing Land Use** Working farm.
- **Significant Site Attributes** Significant stand of trees at the west end of the property immediately adjacent to the proposed telecommunication tower.
- **East:** Across Highway 15/176 Street farmland and buildings, zoned A1, designated Agricultural in the OCP.
- **South:** Across 8 Avenue farmland and buildings, zoned A1, designated Agricultural in the OCP.

- **West:** Farmland within the BC Hydro corridor, zoned A1, designated Agricultural in the OCP.
- **North:** Farmland, zoned A1, designated Agricultural in the OCP.

## DEVELOPMENT CONSIDERATIONS

### Background

- The subject site is an existing farm on a property designated Agricultural in the OCP, and is zoned "General Agriculture Zone (A-1)".
- There is currently a single family house on the property, as well as a barn and several outbuildings. The total site area is approximately 39.6 Hectares (98 acres), and is a mixed farming operation.
- The surrounding area is agricultural in nature, and is bordered by Highway No. 15 (176 Street) to the east. The developing Douglas NCP area is to the south.

### Proposed Telecommunication Tower

- The applicant is proposing a variance to the Zoning By-law to increase the maximum permitted height of a telecommunication tower from 12 metres (40 ft.) to 50 metres (164 ft.).
- The proposed tower is to be located toward the centre of the site and next to a large stand of trees. It would be the westernmost structure on this site (Appendix IV).
- The base of the tower, as well as the proposed fenced compound, are located approximately 204 metres (670 ft.) from 8 Avenue, and approximately 513 metres (1,683 ft.) from 176 Street. The base of the tower and the associated cabinets are to be shielded from view from 8 Avenue by the proposed fencing and landscaping, as well as by the stand of trees located to the west of the structure. The base of the tower is shielded from view from 176 Street by the other buildings already on the site.
- The applicant states that there is a growing need for wireless communication services in the area, which experiences high traffic volumes along 176 Street. Wireless coverage in the area is reported to be less than ideal, with calls occasionally being handled through infrastructure located in Washington State, USA.
- The pole is proposed to be a multi-carrier installation, with space for cellular antenna arrays from 3 wireless carriers. This project is proposed by Bell Mobility Inc., with commitment from Rogers Wireless and Telus Mobility to co-locate their respective antennas on the structure.
- The proposed design is a "monopole", meaning a single steel pole, to be painted green in order to effectively blend with the stand of trees immediately west.
- The nearest Bell Mobility wireless sites are at 24 Avenue and 176 Street, 18 Avenue and 164 Street, and 28 Avenue and 156 Street. These are all antennas mounted on Hydro Transmission Towers.

## BY-LAW VARIANCE AND JUSTIFICATION

### (a) Requested Variance:

- The applicant is proposing a variance to the Zoning By-law for the maximum permitted height of a structure in the A-1 Zone for the purposes of constructing a telecommunication tower

### Justification for Proposed Variance:

- The monopole height is proposed to be tall enough to ensure that there is a 2.5 metre (8 ft.) separation between carriers antennas on the structure is above treetop level. Wireless coverage is dependant upon "line of sight" communication.
- The proposed tower compound is located relatively far from public roads and in the midst of a working farm.
- There is a large greenhouse on an adjacent parcel to the south (17453 - 8 Avenue), which partially screens the buildings noted above from view of the street.
- City Council Policy O-49 on Telecommunication Towers discusses the location/siting of facilities, Design, Landscaping, Tower Height and Evaluation, and Consultation (Appendix VI). These requirements have been addressed as follows:

#### Location and Siting:

- This site provides the combination of proximity to wireless demand, while being located relatively far from a public street.
- The proposed tower is sited in a non-residential area and away from any residential uses.
- The tower is not proposed to be located on a prominent natural feature such as a hilltop.
- The tower is located such that the base is more than the height of the structure from an existing or future road right-of-way.
- There is a large stand of mature trees located immediately to the west.
- There are no other existing structures within 500 metres (1640 ft.) of the proposed tower location that would be suitable for use as a telecommunications facility base. The Hydro high-voltage transmission towers to the west are not of sufficient height to be suitable for antenna locations, as surrounding trees are taller than the transmission towers, and antennas can not be mounted much above the current tower heights due to static loading concerns.

#### Co-location Requirement and Height

- The proponent of this project has agreements in place with two other telecommunications providers to ensure that this site can be considered a "co-location" tower.
- The co-location requirement will ensure maximum use of approved towers and minimize the proliferation of new towers.

- Co-location on this property has resulted in the need for a higher tower than would otherwise have been necessary, as each carrier requires approximately 2.5 metres (8 ft.) of clear space between each of their installations, resulting in a distance of approximately 12.5 metres (41 ft.) between the lowest and highest antenna. Each carrier proposes two sets of antennas, one above the other (Appendix IV).
- The lowermost location on the tower must maintain unobstructed line of sight above adjacent treetops, which are estimated at between 30 and 35 metres (100 to 115 ft.) in height.
- The proposed tower height has been calculated based on the surrounding tree height and required distance between the six proposed installations, assuming some tolerance for tree growth on the foreseeable horizon.

#### Tower Design and Landscaping

- The monopole tower design is in keeping with Council Policy with regard to new tower construction in the City of Surrey.
- The proposed landscaping is basic cedar hedging around the equipment compound. As the compound is far from a public highway, this is considered acceptable.

#### Public Consultation and Communication

- Council policy requires the applicant to mail an information package to residences within a radius of 6 times the height of the proposed telecommunications tower in cases where the tower is proposed to be located in a residential area.
- The proposed tower is not located in a residential area (on land designated Suburban, Urban, or Multiple Residential).
- Public consultation was undertaken in this case, in the form of a notification package describing the proposal which was prepared by the consultant and circulated to all abutting landowners as well as any properties that fell within a radius of 330 metres (1083 ft.) from the base of the proposed tower (in accordance with Council Policy on pre-notification for telecommunication towers). The package was sent by regular mail on December 18, 2006, and no comments have been received to date.

### INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Lot Owners, Action Summary and Project Data Sheets
Appendix II.	Contour Map
Appendix III.	Engineering Summary
Appendix IV.	Site Plan, Tower Elevation
Appendix V.	Ministry of Transportation Comments
Appendix VI.	Council Policy O-49
Appendix VII.	Development Variance Permit No. 7906-0461-00

INFORMATION AVAILABLE ON FILE

- Soil Contamination Review Questionnaire prepared by Chad Marlatt dated January 30, 2007.

How Yin Leung  
Acting General Manager  
Planning and Development

TB/kms

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Information for City Clerk

Legal Description and Owners of all lots that form part of the application:

1. (a) Agent:      Name:                      Chad Marlatt, Bell Mobility  
                         Address:                      264 Nootka Street  
    Vancouver, BC V5M 3M4  
                         Tel:                              604-678-4064
  
2.      Properties involved in the Application
  - (a)      Civic Address:              961 - 176 Street
  
  - (b)      Civic Address:              961 - 176 Street  
                 Owner:                      K.S.C. Holdings Ltd.  
                 PID:                              013-222-082  
                 Southeast Quarter Section 7, Township 7, Except: Firstly: The North Quarter;  
                 Secondly: Part on Plan 15097; Thirdly: Part on Statutory Right-of-Way,  
                 Plan 78025; Fourthly: Part Dedicated Road on Plan BCP 13058, New  
                 Westminster District
  
3.      Summary of Actions for City Clerks Office
  - (a)      Proceed with Public Notification for Development Variance Permit No. 7906-0461-00.

## DEVELOPMENT DATA SHEET

**Existing Zoning: A1**

Required Development Data	Minimum Required / Maximum Allowed	Proposed
LOT AREA* (in square metres)		
Gross Total		
Road Widening area		
Undevelopable area		
Net Total		396,060 m <sup>2</sup> /98 acres
LOT COVERAGE (in % of net lot area)		
Buildings & Structures		
Paved & Hard Surfaced Areas		
Total Site Coverage		
SETBACKS ( in metres)		
Front		
Rear		
Side #1 (N,S,E, or W)		
Side #2 (N,S,E, or W)		
Side #3 (N, S, E or W)		
BUILDING HEIGHT (in metres/storeys)		
Principal		
Accessory	Max 12 m (39 ft.)	50 m (164 ft.)
NUMBER OF RESIDENTIAL UNITS		
Bachelor		
One Bed		
Two Bedroom		
Three Bedroom +		
Total		
FLOOR AREA: Residential		
FLOOR AREA: Commercial		
Retail		
Office		
Total		
FLOOR AREA: Industrial		
FLOOR AREA: Institutional		
TOTAL BUILDING FLOOR AREA		

Heritage Site	NO	Tree Survey/Assessment Provided	NO
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**\* If the development site consists of more than one lot, lot dimensions pertain to the entire site.**

CONTOUR MAP FOR SUBJECT SITE

