

# City of Surrey PLANNING \& DEVELOPMENT REPORT <br> File: $\quad 7914-035^{2-00}$ 

Planning Report Date: June 15, 2015

## PROPOSAL:

## - Development Variance Permit

in order to increase the height of three (3) freestanding telecommunication towers from 12 metres ( 40 ft.) to 30 metres ( 98 ft .).

LOCATION: $16900-64$ Avenue

OWNER: City of Surrey
ZONING:
RA
OCP DESIGNATION: Urban


## RECOMMENDATION SUMMARY

- Approval for Development Variance Permit to proceed to Public Notification.


## DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- Seeking a variance to the Zoning By-law to increase the maximum permitted height of three (3) free-standing telecommunication towers from 12 metres ( 40 ft .) to 30 metres ( 98 ft .).


## RATIONALE OF RECOMMENDATION

- The applicant has proposed a monopole design that replaces and attempts to mimic three existing 25 -metre ( 82 ft .) tall light poles for a soccer field.
- Each monopole will accommodate 1 wireless carrier and replacement lighting. The wireless carriers are Rogers, Telus and Wind Mobile.
- The applicant has provided information which indicates that there are no existing structures which are suitable to meet the coverage requirements within a 2 -kilometre ( 1.2 -mile) radius of the subject site.
- The public notification for the proposal generated 19 supportive and 6 negative responses from 515 property owners within 180 metres ( 590 ft .) of the proposed pole locations as well as any properties neighbouring the park.
- The applicant has provided documentation which indicates that there is a demonstrated coverage gap in the area for all three carriers, which the wireless carriers would like to resolve to attract new customers.


## RECOMMENDATION

The Planning \& Development Department recommends that Council approve Development Variance Permit No. 7914-0352-0o (Appendix IV) varying the following, to proceed to Public Notification:
(a) to vary the Zoning By-law to increase the maximum height of three (3) freestanding telecommunication towers from 12 metres ( 40 ft .) to 30 metres ( 98 ft .).

## REFERRALS

Engineering: The Engineering Department has no objection to the project.

Parks, Recreation \& Parks has no concerns with the proposed installations.
Culture:

## SITE CHARACTERISTICS

Existing Land Use: Cloverdale Athletic Park.

Adjacent Area:

| Direction | Existing Use | OCP / NCP <br> Designation | Existing Zone |
| :--- | :--- | :--- | :--- |
| North (Across <br> 64 Avenue): | Low density townhouses. | Urban | CD By-law No. 17751 <br> and RM-10 |
| East: | Cloverdale Athletic Park and <br> single family dwellings. | Urban | RA and RF |
| South: | Single family dwellings and <br> low density townhouses. | Urban | RF, CD By-law No. <br> 13159 and RF-12 |
| West (Across <br> 168 Street): | Single family dwellings, low <br> density townhouses, and <br> shopping centre. | Small Lots, <br> Townhouses 8-15 <br> u.p.a. and Commercial | CD By-law No. <br> 14843B, RF-9 and <br> CD By-law No. 17674 |

## DEVELOPMENT CONSIDERATIONS

- The subject property is located at the southeast corner of 64 Avenue and 168 Street in Cloverdale. The site is designated Urban in the Official Community Plan (OCP) and is zoned "One-Acre Residential Zone (RA)". The subject site has multiple sports fields and facilities comprising the Cloverdale Athletic Park.
- Cypress Lands Services Incorporated on behalf of Rogers, Telus and Wind Mobile is proposing to erect three telecommunication towers and related equipment compounds on the subject site.
- The City has authorized the applicant (Cypress Lands Services Incorporated), to apply for a Development Variance Permit to increase the maximum height of the three (3) free-standing telecommunication towers from 12 metres ( 40 ft .) to 30 metres ( 98 ft .).


## Pole Designs

- The three proposed telecommunication monopoles will replace existing, approximately 25metre ( 82 ft .) tall, light poles that have a width of approximately 0.46 metre ( 18 inches) (Appendix II). The proposed stealth pole telecommunication towers are 30 metres ( 98 ft .) tall and 1.05 metres ( 3.5 ft .) wide at the base and taper to 0.50 metre ( 2 ft .) at the top.
- The proposed towers are designed to mimic the design of the soccer field light poles they are replacing. The antenna will be located above the floodlighting panels. Due to the cost of installation, encased antennas are not feasible.
- For each of the three proposed monopoles, the top of the replacement floodlighting lights are proposed to be located at 24.5 metres ( 8 oft .) height which is the approximate height of the current lights. A set of radio remote units (RRUs) will be located behind the mounted lights to limit visibility.
- The proposed Wind Mobile telecommunication tower has a setback of approximately 45 metres ( 148 ft .) from the western property line. The Rogers and Telus towers have a setback of approximately 121 metres ( 400 ft .) from the western property line. All other setbacks are substantially larger.
- Young trees within the park and street trees surrounding the park are not yet mature but will marginally screen the towers as they grow.
- The applicant has provided renderings of what the proposed telecommunication towers with the flood lights will look like from the west at 63 Avenue and 168 Street (Appendix III).


## Compounds and Cabinets

- Two areas are proposed for equipment compounds. Rogers and Telus will house their equipment next to the existing electrical shed. The proposed compound is a two-storey structure with Rogers and Telus each having a floor. The proposed structure is 3 metres ( 1 oft .) by 4.9 metres ( 16 ft .) in dimension, for a total area of 14.7 square metres ( 158 sq . ft.). Within the proposed compound, there are proposed to be two cabinets and a transformer. The proposed compound will be constructed of cinder block to match the existing shed (see Appendix II).
- The proposed Wind cabinet and equipment are substantially smaller and will be located to the northwest of their pole. Proposed cabinet dimensions are 0.9 metre ( 3 ft .) by 0.8 metre ( 2.5 ft .) wide and 1.7 metres ( 5.5 ft .) tall, equivalent to the size of a small refrigerator. The cabinet will be wrapped with decorative graphics to better blend into the surrounding area.


## Previous Application and Alternate Locations Explored

- A previous application (Development Application No. 7910-0252-oo) was submitted in 2010 to construct a 43-metre ( 141 ft .) tower for Cascadia Communications Incorporated at 6630-168

Street, to the north of the subject site. The pre-application process was contentious (including two petitions) and was ultimately closed.

- Staff and the applicant explored several alternate locations within, and surrounding, the subject site but no viable alternate sites or solutions could be found.


## Coverage Area

- The proposal will provide improved telecommunication coverage and capacity for all three carriers for the area generally bound by 66 Avenue to the north, 173 Street to the east, 58 Avenue to the south, and 163 Street to the west (see Appendix V). There is a noticeable void of towers in the area (Appendix VII).


## City's Telecommunication Strategy

- An inter-Departmental team of staff has been meeting with representatives of the six (6) telecommunication companies, including Rogers, Telus and Wind Mobile. Due to the escalating demand for wireless service, the telecommunication companies have requested a more stream-lined process for obtaining approvals from the City for new installations. The key message staff has relayed to the group is the importance of a comprehensive strategy to ensure adequate coverage for all carriers while minimizing the number of singular user installations, without compromising the existing policy guidelines, especially proximity to residential areas and aesthetics being adequately addressed.
- Improving high speed wireless service supports the growing high technology sector, high tech education, emergency services and broadens community consultation opportunities through social media.
- Although a comprehensive City-wide strategy has not yet been developed for Council's consideration at this time, the subject application generally complies with the current Telecommunication Tower Policy and is therefore, being presented for Council's consideration.
- The City policy on telecommunication towers was developed in conjunction with wireless providers and approved by Council on June 18, 2001 (Policy No. O-49 Telecommunication Towers). The policy provides parameters on how the towers should be sited and designed.
- The following is an evaluation of the current proposal in relation to Policy No. O-49:


## Location and Siting

- When considering the siting of telecommunication tower facilities, every effort should be made to locate new equipment on existing structures such as Hydro transmission line towers, utility poles, roof tops, etc.

The applicant has indicated that they require a 30-metre ( 98 ft .) height in order to ensure an expanded coverage area bounded by 66 Avenue to the north, 173 Street to the east, 58 Avenue to the south, and 163 Street to the west (see Appendix V). The proposed poles utilize existing light structures which are the tallest structures in the neighbourhood.

The applicant has informed staff that there are no existing structures within a 2-kilometre (1.2-mile) radius from the proposed location of the telecommunication tower that have the necessary height to facilitate the increased coverage area.

- It is preferable that new free-standing telecommunication towers be sited in non-residential locations and preferably in industrial areas.

The proposed location is within an existing park area with the closest residential dwelling approximately 75 metres ( 246 ft .) away.

- Towers on prominent natural and cultural features, environmentally sensitive areas or areas with historically significant buildings are discouraged.

The proposed location of the installation is located within the Cloverdale Athletic Park. The towers are designed to mimic soccer field lighting poles and do not impact any natural, cultural, environmentally sensitive or significant features.

- New free-standing telecommunication towers should be located at a distance from the edge of an existing or future road allowance no less than the height of the tower.

One of the wireless installations (Wind Mobile) is proposed to be set back approximately 46 metres ( 150 ft .) from the west property line at 168 Street, which is below the height of the proposed tower. All other setbacks from adjoining roads are significantly greater.

- Location of telecommunication towers on sites with matures trees is encouraged.

The installations are within the Cloverdale Athletic Park, and there are many young trees on site. In the future as these trees mature the proposed towers will be better screened.

- All applicants for free-standing telecommunication structures will be requested to identify any other structure (i.e. hydro transmission towers, existing telecommunication towers, etc.) within a radius of 500 metres ( $1,640 \mathrm{ft}$.) from the proposed location and to provide reasons why other existing structures within that radius are not acceptable for use (i.e. structural capabilities, safety, available space or failing to meet service coverage needs).

There are no suitable existing structures within a 500-metre (1,640 ft.) radius of the site.

## Co-Location

- The carriers and other telecommunication tower owners are encouraged to work cooperatively in reaching agreements which allow for sharing of tower structures so as to minimize the total number of towers in the City. This practice is typically referred to as "colocation".

Due to the stealth design and proposed height of 30 metres ( 98 ft .), co-location on individual poles is not feasible at this location as it would require significant additional height and width. Other carriers may wish to explore a similar pole design in the future.

- Towers and ancillary equipment shelters will be designed to fit their surroundings and to minimize their visual impact on surrounding properties.

The applicant is proposing a monopole design that will mimic the design of existing lighting poles on the site. The Telus and Rogers cabinets will be located within a structure matching and attached to an existing electrical shed on site. The proposed Wind cabinet is smaller than Rogers and Telus equipment, consisting of a single cabinet similar in size to a transformer. The proposed cabinet will be wrapped to better integrate with its surroundings.

- The use of monopoles is encouraged. Where a tower is being constructed to accommodate a single user, a monopole design is required.

Each of the proposed towers will be for a single carrier and each is a monopole design.

- Landscaping shall be appropriately placed around telecommunication towers and ancillary facilities, such as equipment shelters, to minimize their visual impact on the neighbourhood.

The proposed towers are within the Cloverdale Athletic Park. There are several young trees within the park that will better screen the towers in the future. The ancillary equipment compound of Rogers and Telus will be located flush to the existing electrical shed and will match the cinder block design of the existing shed. The equipment compound for Wind is small and will be wrapped with decorative graphics.

## PUBLIC CONSULTATION

In accordance with the City policy, the applicant sent out approximately 515 information packages on April 28, 2015 to property owners within a notification area of approximately 180 metres ( 590 ft .), which is six times the height of the proposed tower, as well as properties bordering the park if beyond 180 metres ( 590 ft .).

As a result of these notifications, 25 comments were received concerning the proposed towers with nineteen (19) residents in support and six (6) residents being opposed.

The positive comments raised by the residents and business owners are as follows:

- All 19 respondents mentioned improved reception is badly needed in the area.
- Four respondents indicated a desire for greater high-speed wireless coverage in the area and therefore supported the tower, including residents and representatives from two businesses within the notification area. One business owner indicated that the business has been negatively impacted due to lack of wireless coverage. A representative from another business also indicated strong support.
- One resident thought the proposed poles were well planned and blend in well with existing light poles.

The negative concerns raised by the residents are as follows (with the applicant's responses in italics):

- Dissatisfied with the proposed location. Respondents thought a better location would be across Northview Golf Course or the Ridge.

The applicant explored alternate locations and this site was deemed to be the most suitable and feasible to provide the necessary coverage.

- Suggested one tower rather than three towers.

Each of the proposed 30-metre ( $98 f \mathrm{ft}$.) towers is designed to mimic the existing lighting pole structures. Due to vertical space separation requirements of the three carriers, a single tower would require a height of closer to 45 metres (148 ft.) and a substantial increase to width.

- Previous denial of a tower in the area.

A previous application (Development Application No. 7910-0252-00) was submitted in 2010 to construct a 43-metre (141 ft.) tower for Cascadia Tower Incorporated at 6630-168 Street to the north of the subject site. The pre-application process was contentious (including two petitions) and was ultimately closed. Staff have worked for several years with the applicant to find an alternate site which is better integrated with the neighbourhood. The subject application has received more support than opposition.

- The proposed towers are unsightly.

The proposed monopole design is intended to mimic the existing light standards. Lighting levels will remain the same and the radio remote units (RRU's) have been hidden behind the lighting.

- Concerns about health impacts of the proposed cellular tower, as the park is used by children and sports groups.

Cellular tower installations are required to be designed, constructed, and operated in adherence with the minimum standards set by Health and Industry Canada. Sports groups have been consulted, and are in support of the proposed telecommunication towers.

- Amount that the City is receiving in revenue from the tower should be made public.

Negotiations with the carriers on lease rates and terms are ongoing and this information cannot be released at this time.

## BY-LAW VARIANCE AND JUSTIFICATION

(a) Requested Variance:

- To vary the Zoning By-law to increase the maximum height of three (3) free-standing telecommunication towers from 12 metres ( 40 ft .) to 30 metres ( 98 ft .).


## Applicant's Reasons:

- The applicant has submitted documentation demonstrating that there is a coverage gap in the area, which the proposed telecommunication tower would assist in resolving.

Staff Comments:

- The proposal complies with the majority of criteria identified in the City's Policy for Telecommunication Towers. The proposed location is within the Cloverdale Athletic Park area with road separation from residential uses.
- The proposed monopole design mimics the design of the existing light poles and may be replicated for other carriers who seek to increase coverage in the area.
- Unlike towers on privately-owned property, the City controls the fate of towers when located on City property. The City is able to remove the telecommunication towers upon termination of leases (usually 20 years) if lands are planned to redevelop or if better designs are feasible in the future.
- Public consultation was primarily positive with 19 residents supportive and six residents opposed.
- Staff support the proposed variance.


## INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I. Lot Owners and Action Summary
Appendix II. Site Plan and Tower Elevations
Appendix III. Renderings
Appendix IV. Development Variance Permit No. 7914-0352-00
Appendix V. Coverage Map of Proposed Tower
Appendix VI. Alternate Structures Considered
Appendix VII. Map of Existing Cell Towers in Area

Original signed by Judith Robertson

Jean Lamontagne
General Manager
Planning and Development

## JKS/da

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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: Tawny Verigin Cypress Land Services Inc.
Address: $\quad 736$ - Granville Street, Unit 120 Vancouver, BC V6Z 1 G3

Tel: 604-620-0877
Cellular: 604-657-8307
2. Properties involved in the Application
(a) Civic Address: 16900-64 Avenue
(b) Civic Address: 16900-64 Avenue Owner: City of Surrey
PID: o17-134-307
Lot A Section 7 Township 8 New Westminster District Plan NWP88205
3. Summary of Actions for City Clerk's Office
(a) Proceed with Public Notification for Development Variance Permit No. 7914-0352-oo and bring the Development Variance Permit forward for issuance and execution by the Mayor and City Clerk.

(1) TRUE NORTH ARROW
SHOWN ON THS DRAWNG
IS APPROXIMATE ONLY AND MUST BE VERIFIED




©
TRUE NORTH ARROW
SHOWN ON THS DRAWNG
IS APPROXIMATE ONLY IS APPROXIMA
AND MUST BE VERIFIED





(2) MICROWAVE LAYOUT AT 29.4 m A.G.L.



 LANGLEY. BC V2Y $2 N 3$
TEL: ( 604 ) $574-6432$
 ENGINEERING $\begin{gathered}\text { EMALL: moiliortheng.com } \\ \text { WEB: wwwtrkeng.com }\end{gathered}$ PROJECT:

BCI 358
SURREY 168 ST AND 64 AVE

SURREY
BRITISH COLUMBIA
dRAWING TITLE:

ANTENNA AND RRU LAYOUTS
SCALE: AS NOTED DRAWING NO.
CHECK BY:
DRAWN BY:

DATE: $\quad$ SEP 16/13
CAD FILE:
PROJECT NUMBER:





(1) ANTENNA LAYOUT AT 29.0 m A.G.L. | 1.2 m |  |
| :--- | :--- | :--- | :--- |
| 0 | 300 |
| 1000 |  |


(2) MICROWAVE LAYOUT AT 26.0 m A.G.L.
${ }^{9} 0$

(3) RRH LAYOUT BEHIND LIGHTS








## Existing

FEB 12, 2015


BC1358 SURREY

TRK

Proposed
FEB 12, 2015


BC1358
SURREY
RK

## DEVELOPMENT VARIANCE PERMIT

NO.: 7914-0352-00
Issued To: City of Surrey
("the Owner")
Address of Owner: $\quad 13450104$ AVE
SURREY BC V3T 1 V8

1. This development variance permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this development variance permit.
2. This development variance permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: o17-134-307
Lot A Section 7 Township 8 New Westminster District Plan NWP88205
16900-64 Avenue
(the "Land")
3. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
(a) In Subsection A.ı.(a)ii.b. of Part 4 General Provisions, the maximum height of a telecommunication tower is increased from 12 metres ( 40 ft .) to 30 metres ( 98 ft .) for three telecommunication towers.
4. The landscaping and the siting of structures shall be in accordance with the drawings numbered 7914-0352-00(A) through to and including 7914-0352-00(D) (the "Drawings") which are attached hereto and form part of this development variance permit.
5. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
6. This development variance permit shall lapse if the Owner does not substantially start any construction with respect to which this development variance permit is issued, within two (2) years after the date this development variance permit is issued.
7. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.
8. This development variance permit is not a building permit.

AUTHORIZING RESOLUTION PASSED BY THE COUNCIL, THE DAY OF , 20 . ISSUED THIS DAY OF , 20 .

Mayor - Linda Hepner

City Clerk - Jane Sullivan






## Service Area Objectives

Service Without Tower


Service With Tower


## OROGERS

## Service Area Objectives



Rogers intends to deliver continuous network coverage in Surrey by the end of 2015

## Service Area Objectives

Service Without Tower


Service With Tower


5 Map of Existing Cell Towers in Area


