

# City of Surrey PLANNING & DEVELOPMENT REPORT File: 7915-0374-00

Planning Report Date: February 1, 2016

#### PROPOSAL:

# • Development Variance Permit

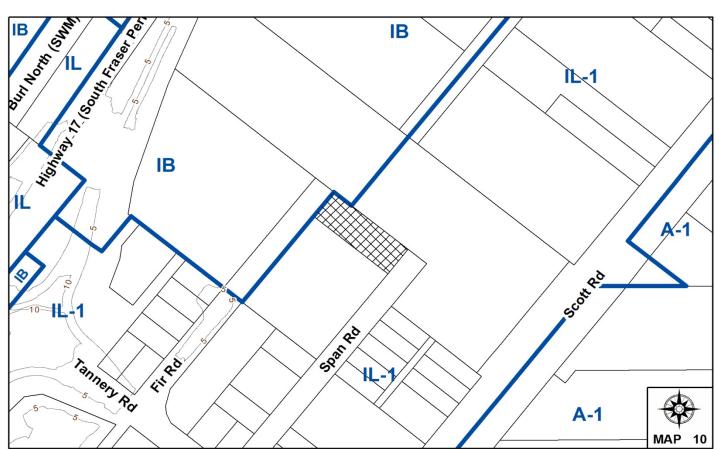
to increase the height of a free-standing telecommunications tower from 12 metres (40 ft.) to 40 metres (131 ft.) and to reduce the northeast side yard setbacks for the proposed tower and associated electrical compound.

LOCATION: 10643 - Span Road

**OWNER:** City of Surrey

**ZONING:** IL-1

OCP DESIGNATION: Mixed Employment NCP DESIGNATION: Highway Commercial



## **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 a free-standing telecommunications tower from 12 metres (40 ft.) to 40 metres (131 ft.).
- Seeking variances to the Zoning By-law to reduce the northeast side yard setback for the proposed telecommunications tower and associated electrical compound.

#### RATIONALE OF RECOMMENDATION

- The applicant has proposed a monopole design telecommunications tower that houses a single carrier, with the capacity to accommodate additional carriers.
- The applicant has provided information indicating that there are no existing structures that are suitable within a 500-metre (1,640 ft.) radius of the subject site.
- The public notification for the proposal generated no comments from the 50 property owners within 240 metres (787 ft.) of the subject site.
- The proposed location of the tower is within an industrial area on a City-owned lot and away from residential areas.
- The applicant has provided documentation which indicates that there is a demonstrated coverage gap in the area, which the wireless carrier would like to resolve to attract new customers.

## **RECOMMENDATION**

The Planning & Development Department recommends that:

1. Council approve Development Variance Permit No. 7915-0374-00 (Appendix V) varying the following, to proceed to Public Notification:

- (a) to vary Part 4 General Provisions of the Zoning By-law, to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 40 metres (131 ft.);
- (b) to reduce the minimum northeast side yard setback of the IL-1 Zone from 7.5 metres (25 ft.) or 0.0 metre (0.0 ft.) to 5.0 metres (16.4 ft.) for a free-standing telecommunications tower and to 0.5 metre (1.6 ft.) for a telecommunications equipment compound.

## **REFERRALS**

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

## **SITE CHARACTERISTICS**

Existing Land Use: There is an existing City of Surrey sanitary pump station (to be

retained) and an existing storage container (to be removed) on the southeastern portion of the lot. The rest of the lot is vacant and has

been leased to a third party for truck parking.

# Adjacent Area:

Direction	Existing Use	OCP/NCP	<b>Existing Zone</b>
		Designation	
North:	Steel storage yard	Mixed	IB
	and office	Employment/Business	
		Park	
East:	Wrecked vehicle	Mixed	IL-1
	storage	Employment/Highway	
		Commercial	
South:	Truck parking	Mixed	IL-1
		Employment/Highway	
		Commercial	
West (Across unopened Fir	Steel storage yard	Mixed	IB
Road):	and office	Employment/Business	
		Park	

## **DEVELOPMENT CONSIDERATIONS**

- The subject property, located at the end of Span Road between Highway No. 17 (South Fraser Perimeter Road) and Scott Road in South Westminster, is designated Mixed Employment in the Official Community Plan (OCP) and Highway Commercial in the Neighbourhood Concept Plan (NCP), and is zoned Light Impact Industrial 1 Zone (IL-1). Prior to May 2005 the site was zoned Light Impact Industrial Zone (IL) (Corporate Report No. Ro34; 2005).
- The subject site is owned by the City of Surrey and currently contains a sanitary pump station on the southeastern portion of the lot and the remainder is leased to a third party for trucking, which complied with the previous IL zoning.
- SitePath Consulting Ltd. on behalf of WIND Mobile Corp. is proposing to erect a telecommunications tower and equipment compound on the subject site.
- The proposal will provide improved telecommunication coverage and capacity for the area generally bound by Highway No. 17 (South Fraser Perimeter Road) to the north, 128 Street to the east, 100 Avenue to the south, and Queens Avenue in the City of New Westminster to the west (see Appendix IV).
- The applicant is seeking a Development Variance Permit (DVP) to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 40 metres (131 ft.).
- The proposed telecommunications tower consists of a monopole that is a minimum 3.5 metres (11.5 ft.) in circumference at the base and tapers towards the top. Exact width dimensions will not be known until final engineering has taken place. The proposed height of the pole is 40 metres (131 ft.).
- The proposed tower is intended to be located on the southeastern portion of the subject lot, immediately adjacent to and behind the existing sanitary pump station building. It will be accessed from an existing driveway off Span Road.
- Staff and the applicant explored whether there were existing structures of sufficient height within a 500-metre (1,640- ft.) radius of the subject site but no such structures were found.
- The applicant has indicated that the 45-metre (148 ft.) high telecommunications tower at the north-east corner of 10239 Grace Road, approved by DVP No. 7910-0227-00, does not have capacity for a third carrier.
- The applicant has provided three renderings of what the proposed grey-coloured pole will look like from the south at Span Road and at Scott Road, and from the north at Highway No. 17 (South Fraser Perimeter Road) (Appendix III).
- An equipment compound is proposed at the base of the pole. The proposed compound is 10 metres (33 ft.) wide by 10 metres (33 ft.) deep for a total area of 100 square metres (1,089 sq. ft.). The proposed compound includes the monopole, one equipment cabinet and electrical equipment. The proposed compound will be enclosed by a 1.8-metre (6 ft.) high chain link fence with barbed wire on top. As the proposed compound is located within an

industrial lot and borders other industrial lots, and is located behind the existing sanitary pump station, no screening is proposed.

• The original height of the proposed tower was 45 metres (148 ft.), and the applicant reduced the height to 40 metres (131 ft.) at the request of staff. The applicant informed staff that further reducing the height below 40 metres (131 ft.) would not meet their network requirements to achieve line of sight and provide dependable service.

# City's Telecommunications Strategy

- The key message staff have relayed to telecommunication companies 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.
- The proposed telecommunications tower supports the City of Surrey's vision for building a strong economy.
- The subject application generally complies with the current Telecommunications Tower Policy No. 0-49 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 40-metre (131 ft.) height in order to ensure an expanded coverage area bounded by Highway No. 17 (South Fraser Perimeter Road) to the north, 128 Street to the east, 100 Avenue to the south, and Queens Avenue in the City of New Westminster to the west (see Appendix IV).

The applicant has informed staff that there are no existing structures within a 500-metre (1,640 ft.) radius from the proposed location of the telecommunication tower that have the necessary height to facilitate the increased coverage area.

An existing cell tower located at 10239 Grace Road is a monopole housing Rogers and Telus equipment. The tower is approximately 1 kilometre (3,281 feet) to the southwest of the subject site and does not have the capacity to accommodate additional loading from WIND.

• 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 the South Westminster industrial area on an IL-1-zoned lot and more than 720 metres (2,362 ft.) from the nearest residential area.

• 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 not located close to prominent natural or cultural features.

• New free-standing telecommunications 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.

The wireless installation is proposed to be set back approximately 54 metres (177 ft.) from the northwestern property line at the unopened Fir Road allowance, which exceeds the height of the proposed tower. The tower is proposed to be set back approximately 27.5 metres (90 ft.) from the southeastern property line at Span Road, which is less than the height of the proposed tower. Due to the location of the existing sanitary pump station, this is the only location that is technically suitable.

• Location of telecommunication towers on sites with mature trees is encouraged.

There are no mature trees on site.

• All applicants for free-standing telecommunication structures will be requested to identify any other structure (e.g. hydro transmission tower, existing telecommunication towers, etc.) within a radius of 500 metres (1,640 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 structures within a 500-metre (1,640 ft.) radius of the subject site that have the necessary height to facilitate the increased coverage area.

#### 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 "co-location".

Co-location was explored by the applicant as the first option, however, the other carriers (Rogers and Telus) already have existing facilities in the area that do not have the capacity to accommodate additional loading.

• Each new free-standing tower built in a non-residential area shall be built to accommodate a minimum of two additional users.

The proposed tower will be structurally designed to accommodate additional rows of antennas below 30 metres (98 ft.), should other carriers apply to co-locate on the proposed tower in the future. The applicant reports that the proposed tower is expected to be able to accommodate a minimum of two additional users below 30 metres (98 ft.).

# Tower Design and Landscaping Criteria

• 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 40-metre (131 ft.) monopole tower, which is a slimmer design than the wider self-supported or guyed tower structure. At the request of staff, the applicant reduced the height of the proposed tower from 45 metres (148 ft.) to 40 metres (131 ft.). The proposed equipment compound is to be flush with the rear of the existing sanitary pump station building on the site and therefore hidden from view from Span Road.

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

The proposed tower will be for a single carrier with the capacity to accommodate a minimum of two additional users, and 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.

As the proposed tower is to be sited on an industrial lot in an industrial area, there is no landscaping proposed around the base of the tower or compound. The ancillary equipment will be located within a chain link compound. There is existing landscaping along the southeasterly property line of the lot to the south (10607 – Span Road), adjacent to the sanitary pump station building on the subject site, which may help to screen the proposed tower.

#### **PUBLIC CONSULTATION**

In accordance with the City policy, the applicant sent out 50 information packages on January 5, 2016 to property owners within a notification area of 240 metres (787 ft.), which is six times the height of the proposed tower.

As a result of these notifications, no comments were received by staff concerning the proposed tower.

# **BY-LAW VARIANCES AND JUSTIFICATION**

# (a) Requested Variance:

• To vary Part 4 General Provisions of the Zoning-By-law, to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 40 metres (131 ft.).

## Applicant's Reasons:

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

## **Staff Comments:**

- The proposal complies with the majority of criteria identified in the City's Policy for Telecommunications Towers. The proposed location is within an industrial area on a City-owned lot and away from residential properties.
- As a result of public notification, no concerns have been expressed.
- Staff support the requested variance.

# (b) Requested Variances:

• To reduce the minimum northeast side yard setback of the IL-1 Zone from 7.5 metres (25 ft.) or 0.0 metre (0.0 ft.) to 5.0 metres (16.4 ft.) for a free-standing telecommunications tower and to 0.5 metre (1.6 ft.) for a telecommunications equipment compound.

## Applicant's Reasons:

- The location of the proposed tower is directly behind an existing sanitary pump station building, making efficient use of the site.
- The location of the equipment compound is based on the design requirements of the proposed monopole.
- The location of the proposed tower and equipment compound allows for access from an existing driveway off Span Road.

### **Staff Comments:**

- Pursuant to Sub-section A.1(a)ii. of Part 4 General Provisions of the Zoning By-law, telecommunication towers shall comply to the setback regulations applicable to principal buildings for the Zone in which the said tower is located.
- According to the IL-1 Zone, one side yard setback shall be either 7.5 metres (25 ft.) or o.o metre (o.o ft.) if the said side yard abuts land which is commercial or industrial.

The lands to the northeast are designated Mixed Employment in the OCP, zoned Light Impact Industrial 1 Zone, and are currently used for wrecked vehicle storage.

- The location of the proposed tower and equipment compound directly behind the existing sanitary pump station building allows for a more efficient use of the rest of the subject site, which is currently leased to a third party for truck parking.
- The equipment compound includes one equipment cabinet and electrical equipment, which will be enclosed by a 1.8-metre (6 ft.) high chain link fence with barbed wire on top. As the equipment cabinet will be 1.5 metres (5 ft.) in height, it will be shielded from view from Span Road by the existing sanitary pump station building.
- Staff support the requested variances.

# **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. Coverage Maps

Appendix V. Development Variance Permit No. 7915-0374-00

original signed by Judith Robertson

Jean Lamontagne General Manager Planning and Development

## RC/dk

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# <u>Information for City Clerk</u>

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

1. (a) Agent: Name: Brian Gregg

Address: 221 West Esplanate, Suite 209

North Vancouver, BC V7M 3J3

Tel: 778-870-1388

- 2. Properties involved in the Application
  - (a) Civic Address: 10643 Span Road

(b) Civic Address: 10643 – Span Road Owner: City of Surrey PID: 024-826-430

Lot 2 District Lot 6 Group 2 New Westminster District Plan LMP46742

- 3. Summary of Actions for City Clerk's Office
  - (a) Proceed with Public Notification for Development Variance Permit No. 7915-0374-00 and bring the Development Variance Permit forward for issuance and execution by the Mayor and City Clerk.

DRAWING INDEX				
DWG NO	DRAWING TITLE	REV		
T-1	TITLE SHEET	2		
A-1	EQUIPMENT AND ANTENNA DETAILS	0		
A-2	ANTENNA LOADING CHART	0		
E-A	SITE PLAN	2		
A-4	COMPOUND LAYOUT	1		
A-5	ANTENNA LAYOUT	0		
A-6	SOUTHEAST ELEVATION	0		
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SITE INFORMATION SITE ID: BVA0543 SITE ADDRESS: 10623 SPAN ROAD SURREY, BC LEGAL DESCRIPTION: PID: 024-826-430 SITE CONFIGURATION: **RAWLAND - MONOPOLE** APPLICANT: WIND MOBILE 209-221 ESPLANADE AVE NORTH VANCOUVER, BC V7M 3J3

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		1	REVISED PER CITY	JAN 12/16
		2	REVISED PER CITY	JAN 21/16



BVA0543 10623 SPAN ROAD

SURREY BRITISH COLUMBIA

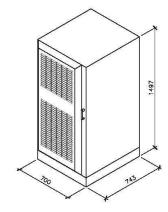
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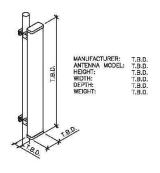
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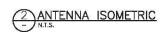
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20755 FRASER HWY LANGLEY, BC V3A 4G4 TEL: (778) 805-2166 INFOQCOREONECONSULTANTS.COM

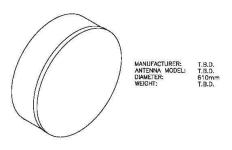
WIND ALCATEL LUC OUTDOOR MEDIUM	
CABINET WEIGHT	156kg (343.9lbs)
(4) 12FFT130 BATTERY WEIGHT	200kg (440.9lbs)
MAX. CABINET WEIGHT	356kg (784.8lbs)











MICROWAVE ISOMETRIC

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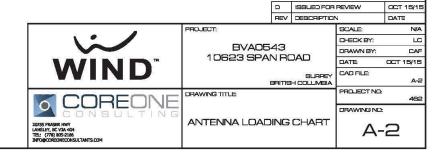
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ISSUED FOR REVIEW

OCT 15/15

	ANTENNA LOADING CHART								
RF#	ANTENNA MODEL	HEIGHT RAD CENTRE	AZMIUTH (°)	EDT (')	MDT (°)	RRH INITIAL INSTALL	FIBRE LENGTH	DC LENGTH	STATUS
1	T.B.D.	±38.0m	30*	T.B.D.	T.B.D.	2	±45.5m	±45.5m	INITIAL
2	T.B.D.	±35.3m	30,	T.B.D.	T.B.D.	2	±42.0m	±42.0m	FUTURE
3	T.B.D.	±38.0m	220'	T.B.D.	T.B.D.	2	±45.5m	±45.5m	INITIAL
4	T.B.D.	±35.3m	220	T.B.D.	T.B.D.	2	±42.0m	±42.0m	FUTURE
5	T.B.D.	±38.0m	300.	T.B.D.	T.B.D.	2	±45.5m	±45.5m	INITIAL
6	T.B.D.	±35.3m	300,	T.B.D.	T.B.D.	2	±42.0m	±42.0m	FUTURE

	MICROWAVE LOADING CHART						
#	SITE ID	ANTENNA TYPE	HEIGHT RAD CENTRE	AZMIUTH (°)	LINE TYPE	LINE LENGTH (m)	STATUS
1	T.B.D.	610mm DIA.	±39.5m	T.B.D.	T.B.D.	±47.0m	INITIAL
2	T.B.D.	610mm DIA.	±39.5m	T.B.D.	T.B.D.	±47.0m	INITIAL





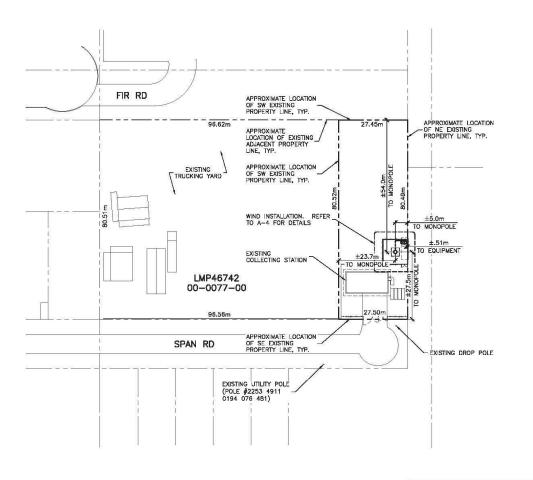
TRUE NORTH ARROW SHOWN ON THIS DRAWING IS APPROXIMATE ONLY AND MUST BE VERIFIED



 SITE PLAN INFORMATION OBTAINED FROM THE CITY OF SURREY GIS MAPPING SYSTEM AND AERIAL PHOTOGRAPHY. THIS DRAWING DOES NOT REPRESENT A SURVEY.

## **LEGAL DESCRIPTION:**

PID: 024-826-430



DEV/	DESCRIPTION	DATE
D	ISSUED FOR REVIEW	OCT 15/15
1	REVISED PER CITY	JAN 12/16
2	REVISED PER CITY	JAN 21/16





COREONE

20755 FRASER HWY
LANGLEY, BC V3A 4G4
TEL: (778) 805-2166
BNFOBOOREONEONSULTANTS.COM

BVA0543 10623 SPAN ROAD

> SURREY BRITISH COLUMBIA

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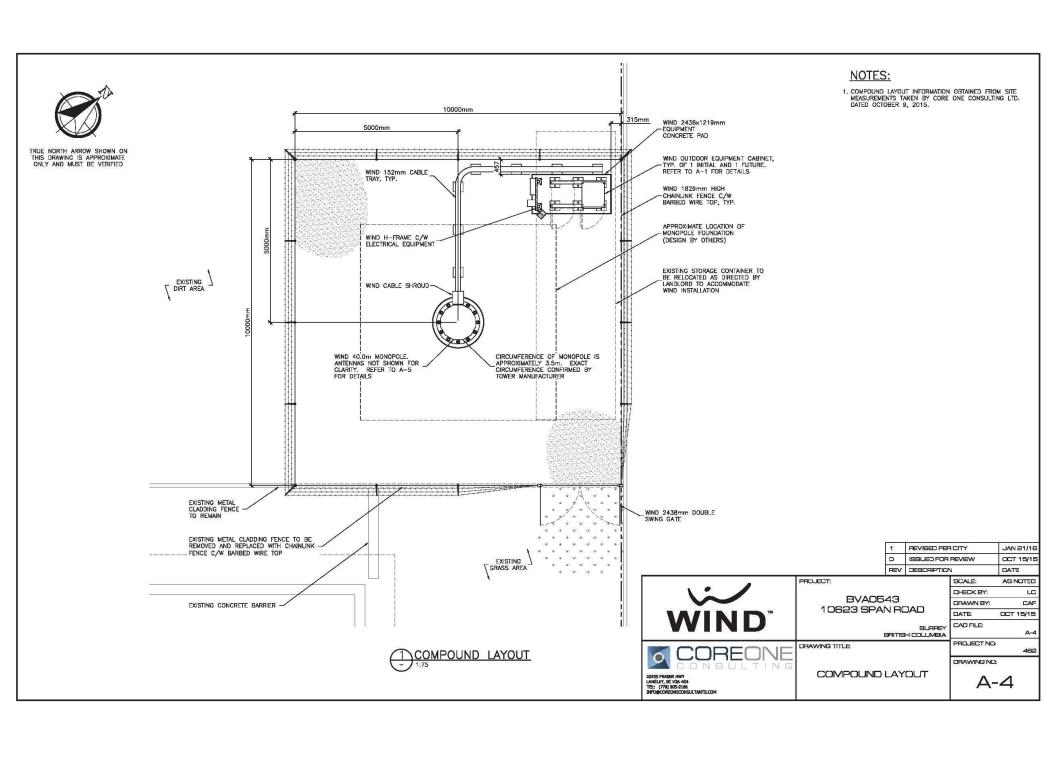
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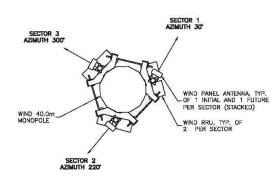
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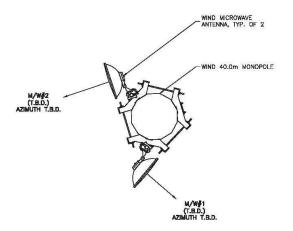




ANTENNA MOUNTING SHOWN IS DIAGRAMMATIC ONLY AND WILL BE DESIGNED BY MONOPOLE MANUFACTURER

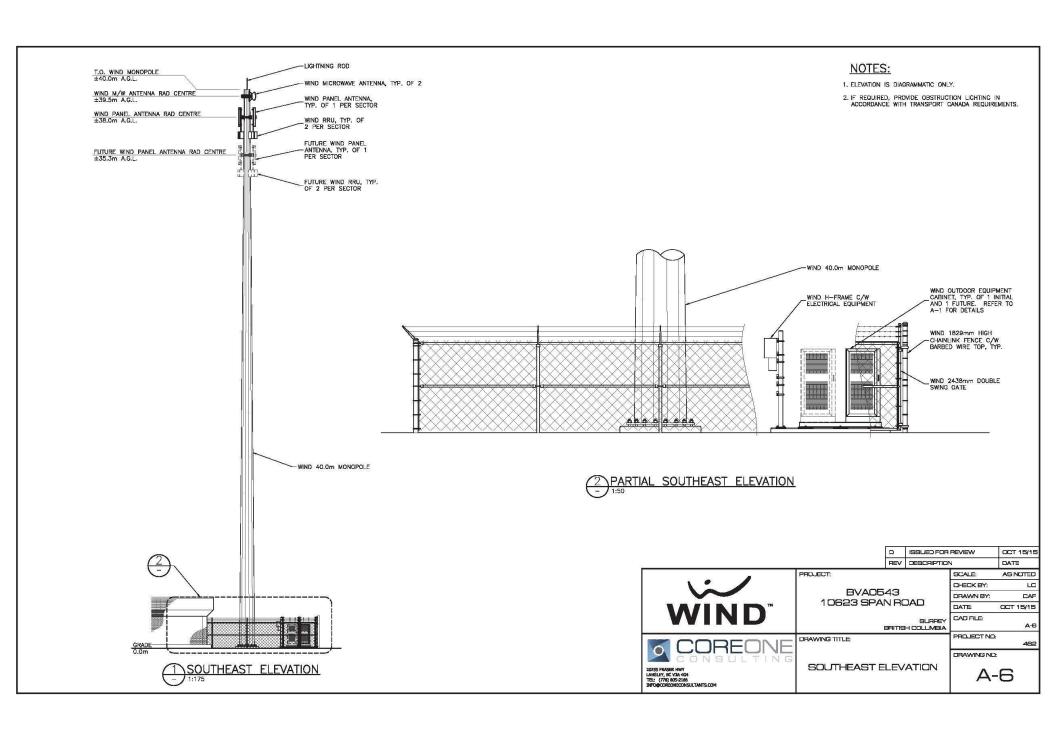


ANTENNA LAYOUT AT 38.0m



2 MICROWAVE ANTENNA LAYOUT AT 38.5m

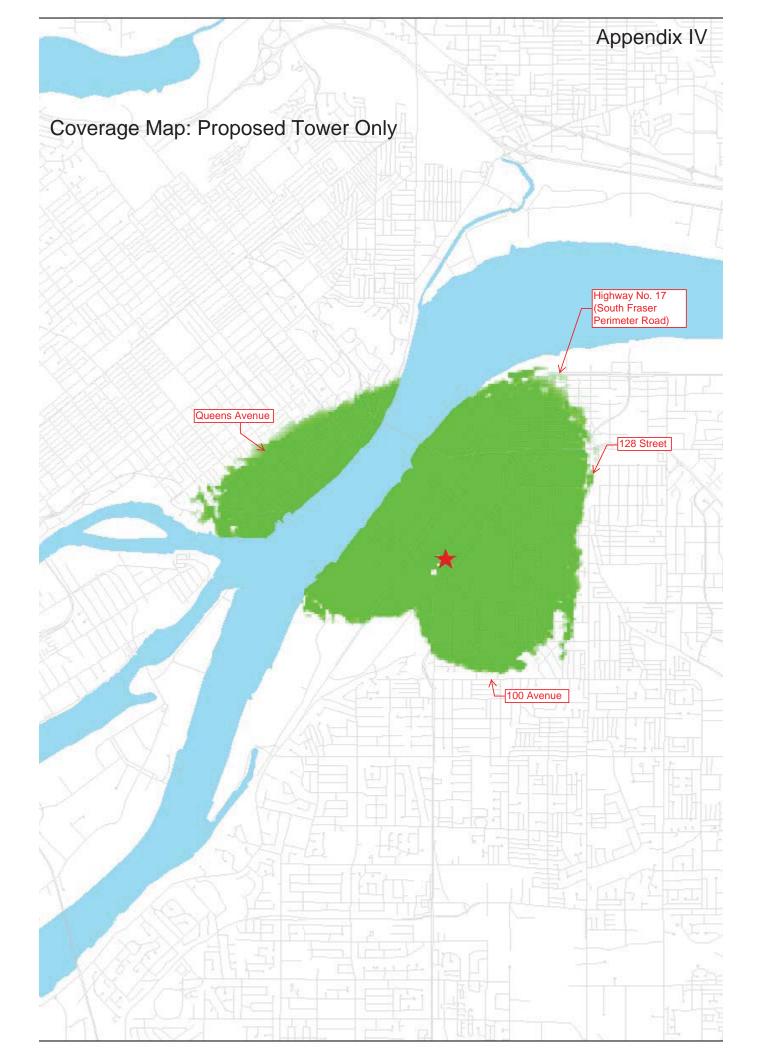


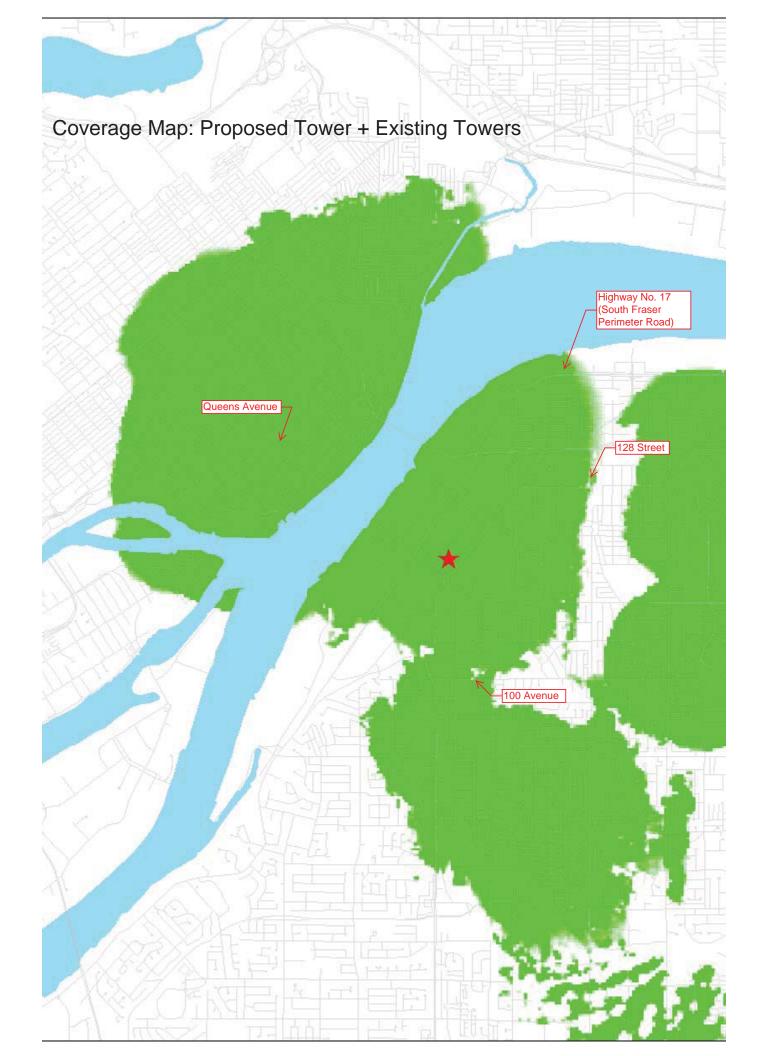


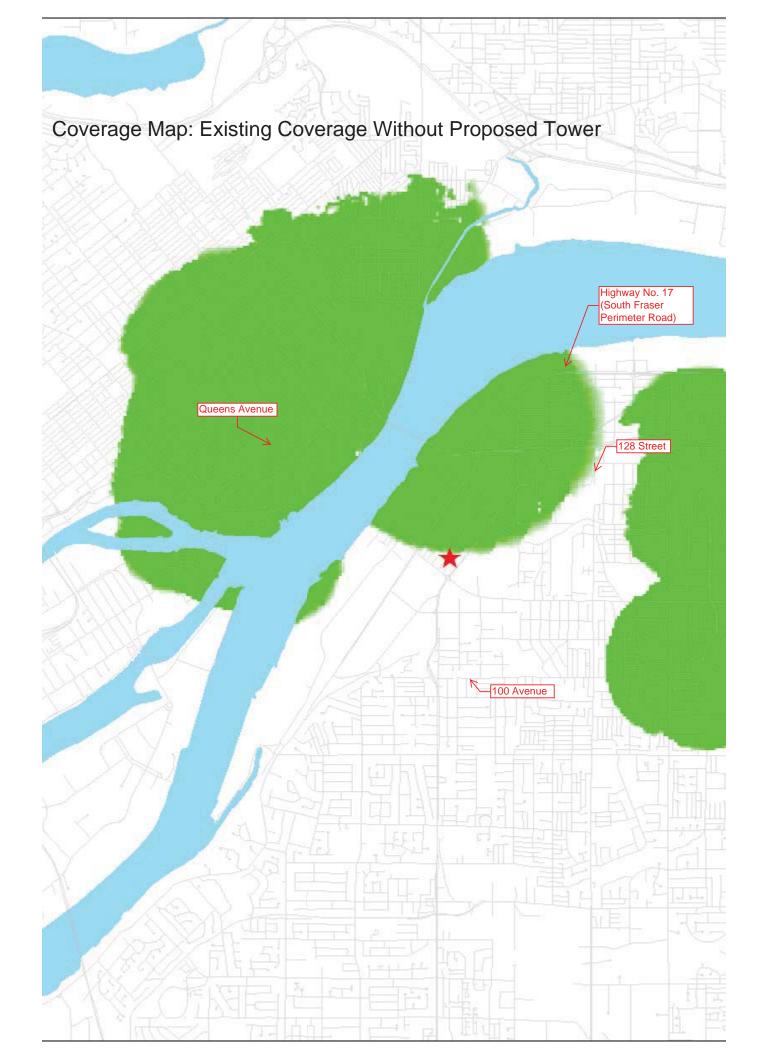












## **CITY OF SURREY**

(the "City")

#### **DEVELOPMENT VARIANCE PERMIT**

NO.: 7915-0374-00

Issued To: CITY OF SURREY

("the Owner")

Address of Owner: 13450 – 104 Avenue

Surrey, BC V<sub>3</sub>T <sub>1</sub>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: 024-826-430 Lot 2 District Lot 6 Group 2 New Westminster District Plan LMP46742

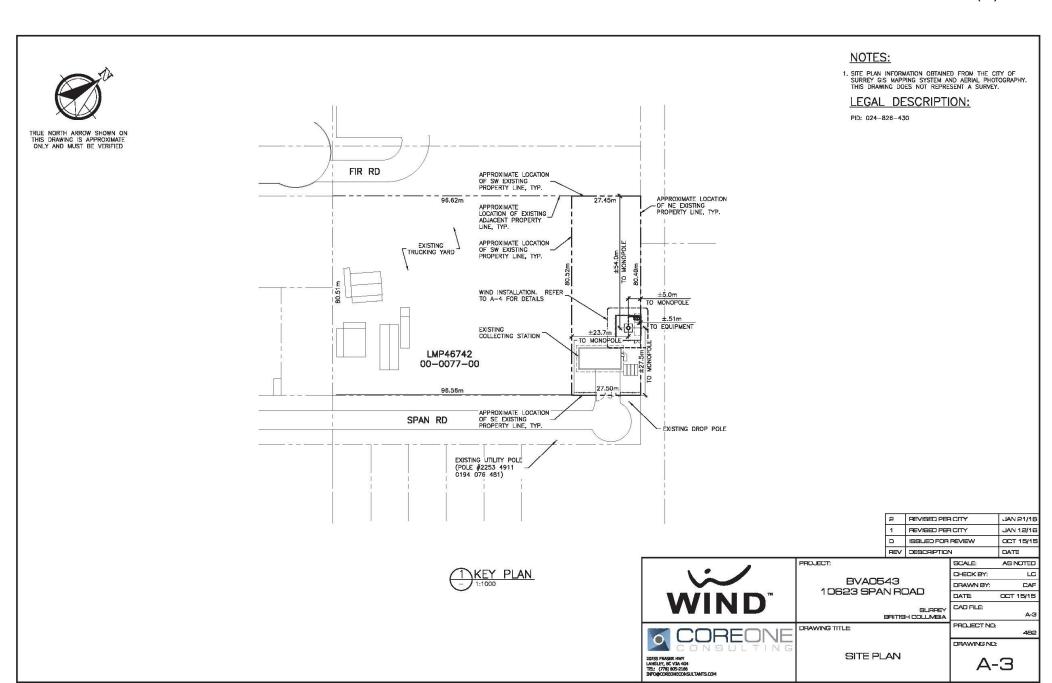
10643 - Span Road

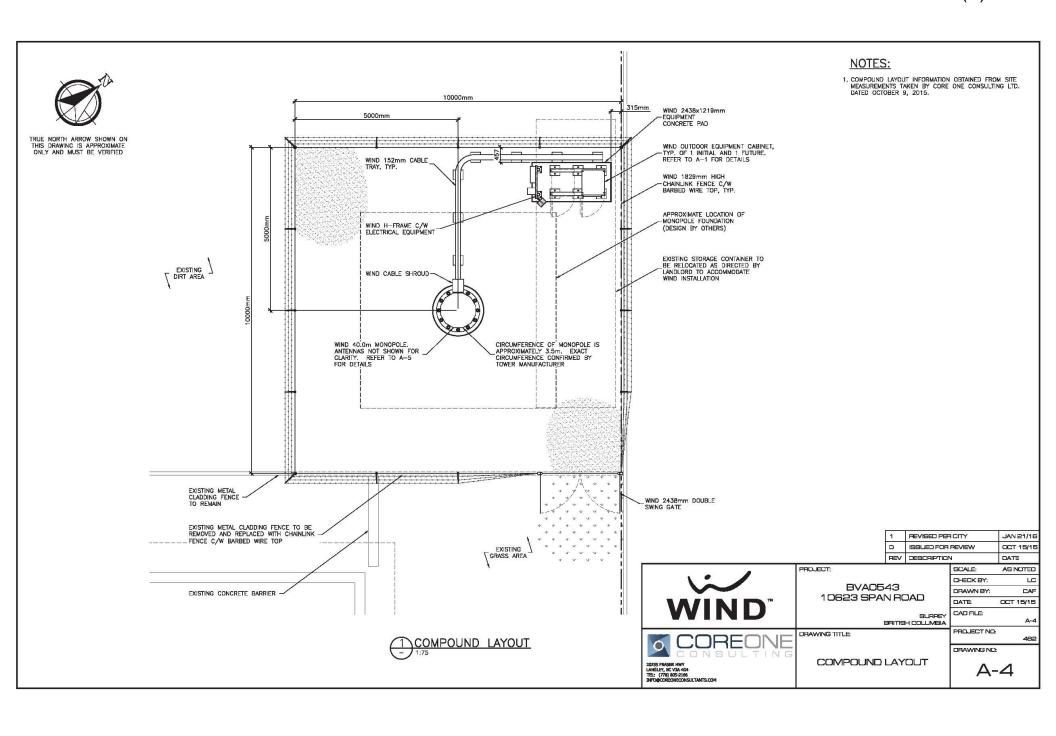
(the "Land")

- 3. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
  - (a) In Sub-section A.1.(a)ii.b. of Part 4 General Provisions, the maximum height of a telecommunications tower is increased from 12 metres (40 ft.) to 40 metres (131 ft.);
  - (b) In Part 48A Light Impact Industrial 1 Zone (IL-1) Section F. Yards and Setbacks, the minimum side yard (northeast) setback is varied from 7.5 metres (25 ft.) or o.o metre (0.0 ft.) to 5.0 metres (16.4 ft.) for a free-standing telecommunications tower and to 0.5 metre (1.6 ft.) for a telecommunications equipment compound.
- 4. The siting of structures shall be in accordance with the drawings numbered 7915-0374-00 (A) through to and including 7915-0374-00 (D) (the "Drawings") which are attached hereto and form part of this development variance permit.

5.	This development variance permit applies to only that portion of the structures on the Land shown on Schedule A which is attached hereto and forms part of this development variance permit. This development variance permit does not apply to additions to, or replacement of, any of the existing buildings shown on attached Schedule A, which is attached hereto and forms part of this development variance permit.
6.	The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
7.	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.
8.	The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.
9.	This development variance permit is not a building permit.
	ORIZING RESOLUTION PASSED BY THE COUNCIL, THE DAY OF , 20 . D THIS DAY OF , 20 .
	Mayor – Linda Hepner

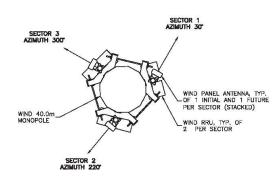
City Clerk - Jane Sullivan



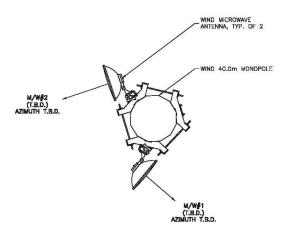




TRUE NORTH ARROW SHOWN ON THIS DRAWING IS APPROXIMATE ONLY AND MUST BE VERIFIED ANTENNA MOUNTING SHOWN IS DIAGRAMMATIC ONLY AND WILL BE DESIGNED BY MONOPOLE MANUFACTURER



ANTENNA LAYOUT AT 38.0m



2 MICROWAVE ANTENNA LAYOUT AT 38.5m

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INFO@COREONECONSULTANTS.COM				/ \ _	

