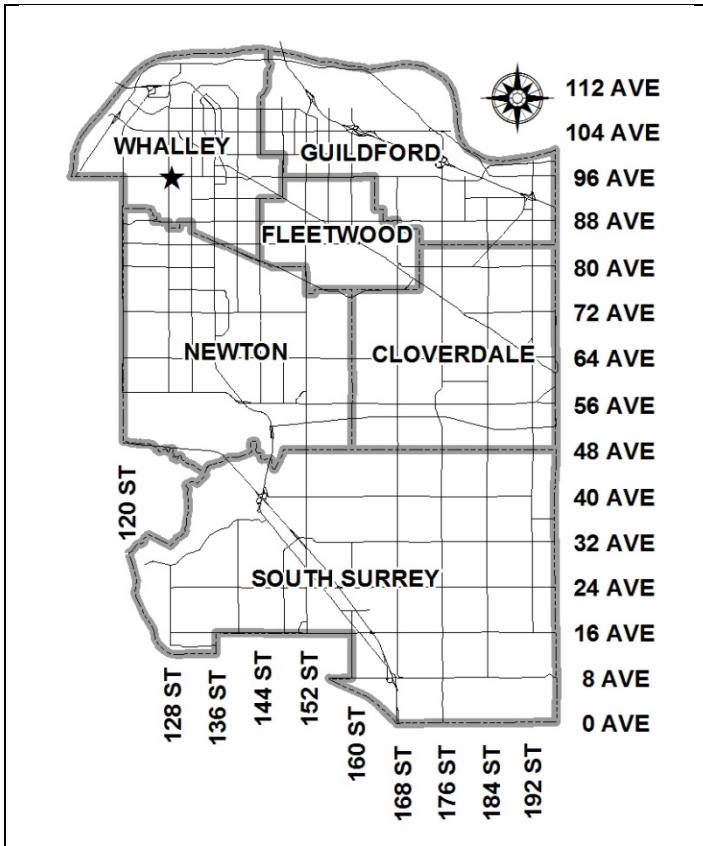


City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7914-0339-00

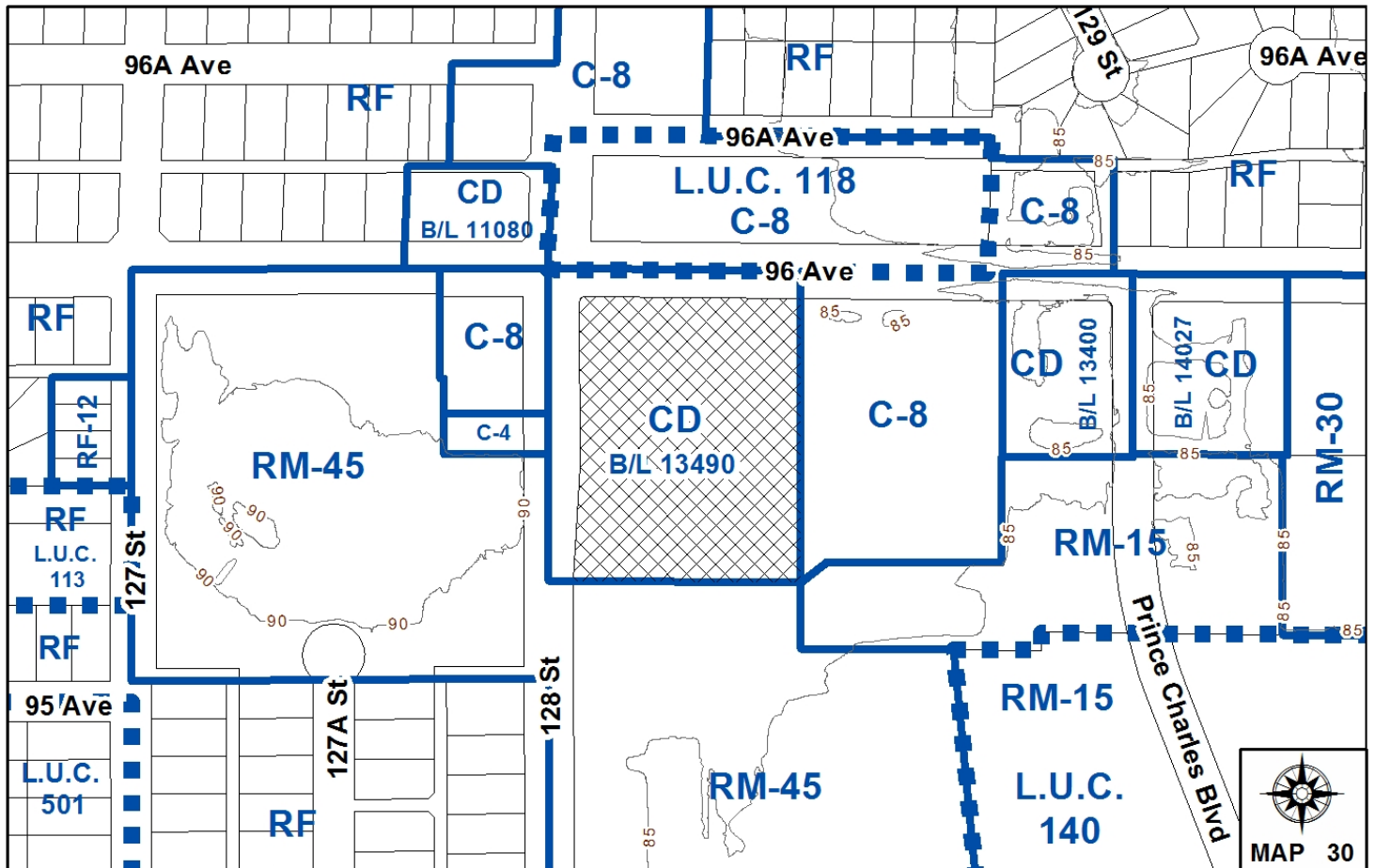
Planning Report Date: March 23, 2015



PROPOSAL:

- **Development Variance Permit**
 in order in order to increase the height of a free-standing telecommunications tower from 12 metres (40 ft.) to 20 metres (66 ft.).

LOCATION: 12830 - 96 Avenue
OWNER: Surrey City Development Corporation / City of Surrey
ZONING: CD (Bylaw No. 13490)
OCP DESIGNATION: 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 20 metres (66 ft.).

RATIONALE OF RECOMMENDATION

- The proposed location of the tower is away from the street within the rear loading and service area of an existing shopping centre.
- The proposed monopole design mimics an existing light pole in the parking lot.
- No concerns were raised through the public notification process.
- The applicant has provided information that indicates there are no existing structures that are suitable to meet the coverage requirements.
- The applicant has provided documentation that indicates 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 Council approve Development Variance Permit No. 7914-0339-00 (Appendix III) varying the following, to proceed to Public Notification:

- (a) to vary the Zoning By-law to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 20 metres (66 ft.).

REFERRALS

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

SITE CHARACTERISTICS

Existing Land Use: Cedar Hills Plaza.

Adjacent Area:

Direction	Existing Use	OCP Designation	Existing Zone
North (Across 96 Avenue):	Commercial mall with mix of businesses.	Commercial	LUC 118 (underlying C-8)
East:	Cedar Hills Plaza and townhouse complex.	Commercial and Multiple Residential	C-8 and RM-15
South:	3-storey apartment building.	Multiple Residential	RM-45
West (Across 128 Street):	3-storey apartment building and 2 commercial buildings with a mix of businesses.	Multiple Residential and Commercial	RM-45, C-4 and C-8

DEVELOPMENT CONSIDERATIONSBackground

- The subject property, located at the southeast corner of 128 Street and 96 Avenue in Whalley, is designated Commercial in the Official Community Plan (OCP) and is zoned Comprehensive Development Zone (CD) By-law No. 13490 (based on the C-8 and CHI Zones). The subject site has several commercial buildings including a drive-through restaurant, comprising the Cedar Hills Plaza.
- There is an existing 31-metre (100 ft.) high telecommunications tower on the site that currently houses Rogers and Telus. Development Variance Permit (DVP) No. 7902-0178-00 to facilitate this existing tower was approved by Council in 2003.

Current Proposal

- Cavalier Land on behalf of Wind Mobile is proposing to erect a telecommunications tower and equipment compound on the subject site.
- The existing 31-metre (100 ft.) telecommunication tower on the subject site currently accommodates Rogers and Telus. Wind has tried to incorporate their equipment on the existing pole but unfortunately there is no room (Appendix VII). The proposed pole is to be sited approximately 17 metres (56 ft.) to the southwest of the existing tower on the site.
- The proposal will provide improved telecommunication coverage and capacity for the area generally bound by 100 Avenue to the north, 130 Street to the east, 92 Avenue to the south, and 126 Street to the west (see Appendix V).
- The property owner has authorized the applicant (Cavalier Land) to apply for a Development Variance Permit to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 20 metres (66 ft.).
- The proposed telecommunication monopole has a setback of approximately 18 metres (49 ft.) from the western property line and 21 metres (69 ft.) from the southern property line.
- The proposed telecommunication monopole will replace an approximately 10-metre (33 ft.) tall existing light pole that has a width of approximately 0.26 metre (10 inches) (Appendix III).
- The proposed pole is 20 metres (66 ft.) tall and approximately 0.76 metre (2.5 ft.) wide at the base tapering narrower towards the top. Staff have not required internal antennas due to the proposed location of the monopole in the rear loading zone away from 96 Avenue.
- Lighting is proposed to be located at an approximately 12-metre (39 ft.) height which is the approximate height of the lighting on the other light poles in the parking lot. No radio remote units (RRU) are proposed, which reduces the impact of the tower.
- The applicant has provided one rendering of what the proposed grey-coloured pole will look like from 128 Street to the west (Appendix II).
- The proposed tower is to be located within a loading area and therefore no landscaping is proposed as part of the installation. To the south of the site mature trees will screen the tower substantially from the existing neighbouring apartment buildings.
- An equipment compound is proposed near the tower and flush to the adjacent existing commercial building. The proposed compound is 3 metres (10 ft.) by 4 metres (13 ft.) in dimension, for a total area of 12 square metres (129 sq. ft.). Within the proposed 1.8-metre (6 ft.) high compound, there are proposed to be two cabinets and a transformer. The proposed compound will be constructed of timber and will match the existing garbage compound.

City's Telecommunication Strategy

- Since October, 2010, an inter-departmental team of staff has been meeting with representatives of the six (6) telecommunication companies, including Wind. 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 have 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 20-metre (66 ft.) height in order to ensure an expanded coverage and provide line of site to the existing Wind Mobile dish located on the roof at 13352 Old Yale Road (see Appendix IX).

The applicant has informed staff that there are no existing structures within a 1-kilometre (0.6-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 the loading area of an existing shopping center within a commercial 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 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.

The wireless installation is proposed to be set back approximately 21 metres (69 ft.) from the southern property line and 18 metres (49 ft.) from the western property line at 128 Street, which is below the height of the proposed tower. Due to the location of the existing light pole that is being replaced, this is the only location that is technically suitable.

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

There are mature trees on the south side of the site that screen the proposed tower from residential properties to the south.

- 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 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. The most feasible location was the 3-storey apartment building across 128 Street to the west. However the applicant reported that the existing elevator room already has equipment and the remainder of the roof was not structurally sound for their equipment.

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".

Due to the pole design and proposed height of 20 metres (72 ft.), co-location is not feasible at this location as it would require additional height and width.

- 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 pole design that will mimic the design of existing light poles on the site. The proposed equipment shelter is to be flush to the rear of the adjacent commercial building on the site.

- The use of monopoles 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 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.

A row of mature cedar trees along the south property line will assist in screening the proposed tower from the south (Appendix VIII). There is an existing juvenile tree along 128 Street which will provide some future screening from 128 Street. An existing tree within the landscape island is to be removed to facilitate the installation of the pole. As the perimeter of the property is well landscaped already, no additional landscaping is proposed.

PUBLIC CONSULTATION

In accordance with the City policy, the applicant sent out approximately 94 information packages on January 31, 2014 to property owners within a notification area of approximately 120 metres (394 ft.), which is six times the height of the proposed tower.

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

BY-LAW VARIANCE AND JUSTIFICATION

(a) Requested Variance:

- To vary the Zoning By-law to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 20 metres (66 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 Telecommunication Towers. The proposed location is within the loading area of a commercial shopping centre.
- The proposed pole design mimics the design of an existing light pole.
- No negative comments were received from the public in regards to the proposed design or location.

- Staff support the proposed variance.

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

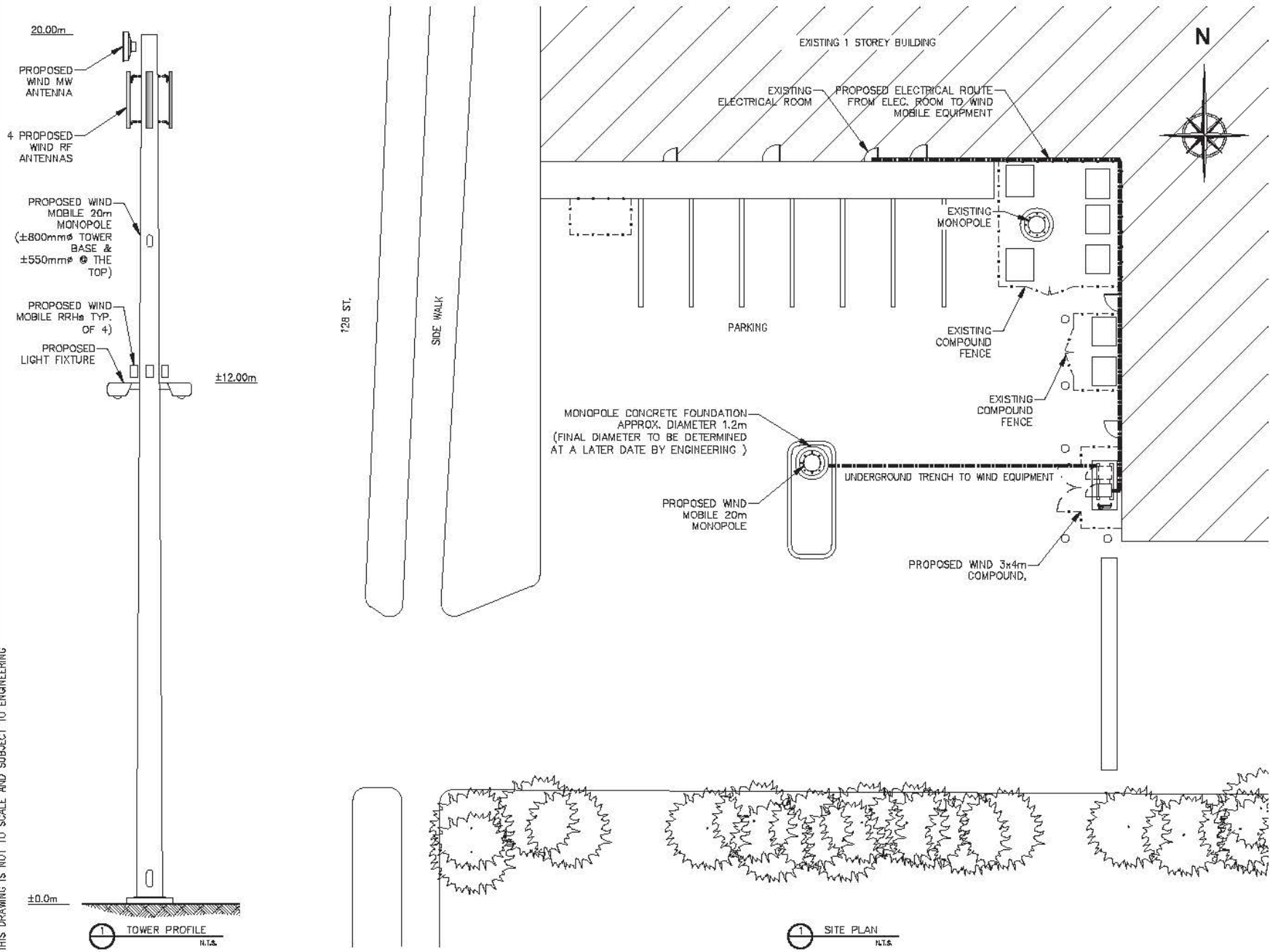
Appendix I.	Lot Owners and Action Summary
Appendix II.	Site Plan, Elevations and Rendering
Appendix III.	Development Variance Permit No. 7914-0339-00
Appendix IV.	Similar 20-Metre (66 ft.) Pole Design from Alberta
Appendix V.	Map of Existing and Proposed Wind Coverage in the Area
Appendix VI.	Aerial Map of Vicinity with Alternate Sites Explored
Appendix VII.	Existing 31-Metre Telecommunication Pole on Site
Appendix VIII.	Photos of Proposed Location and Existing Landscaping
Appendix IX.	Microwave Dish Line of Site to 13352 Old Yale Road

original signed by Judith Robertson

Jean Lamontagne
General Manager
Planning and Development

JKS/da

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DRV 3/19/15 10:19 AM



NOTE:
 • THIS SKETCH FOR PROPOSAL ONLY .
 • PROPOSED DIMENSIONS ARE SUBJECT TO FINAL ENGINEERING DESIGN.

RF & TX NOTES:
 • RF REQUIREMENT:
 SEC. #1 AZ 40°
 SEC. #2 AZ 140°
 SEC. #3 AZ 230°
 SEC. #4 AZ 300°

• M/W REQUIREMENT:
 M/#1: AZ: T.B.D

4			
3	MG	AS PER THE CITY REQ.	24 DEC 14
2	MG	AS PER THE CITY REQ.	03 DEC 14
1	MG	SCH-B	01 AUG 14
NO.	BY	DESCRIPTION	DATE



LOCATION:
 12830 96 AVE,
 SURREY, BC

TITLE:
 SITE PLAN

PROJECT NO: BVA0342
 DWG. NO: A-1

THIS DRAWING IS NOT TO SCALE AND SUBJECT TO ENGINEERING

TOWER PROFILE
 N.T.S.

SITE PLAN
 N.T.S.

Existing 31 metre (102 ft.) telecommunication tower



Rendering of proposed 20 metre (66 ft.) telecommunication tower



CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7914-0339-00

Issued To: Surrey City Development Corp
("the Owner")

Address of Owner: C/O KRISTINA KING / EDWIN LEE
1870-13450 102 AVENUE
SURREY, BC V3T 5X3

Issued To: City Of Surrey
("the Owner")

Address of Owner: 13450 - 104 AVENUE
SURREY, BC V3T 1V8

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: 006-727-107
Lot 431 Section 32 Township 2 New Westminster District Plan 43318
12830 - 96 Avenue

(the "Land")

3. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
 - (a) To vary Sub-section A.1(a)ii.b. of Part 4 General Provisions, to increase the height of a telecommunication tower from 12 metres (40 ft.) to 20 metres (66 ft.).
4. The siting of structures shall be in accordance with the drawings numbered 7914-0339-00 (A) (the "Drawing") which is attached hereto and form part of this development variance permit.

5. This development variance permit applies to only that portion of the buildings and 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.

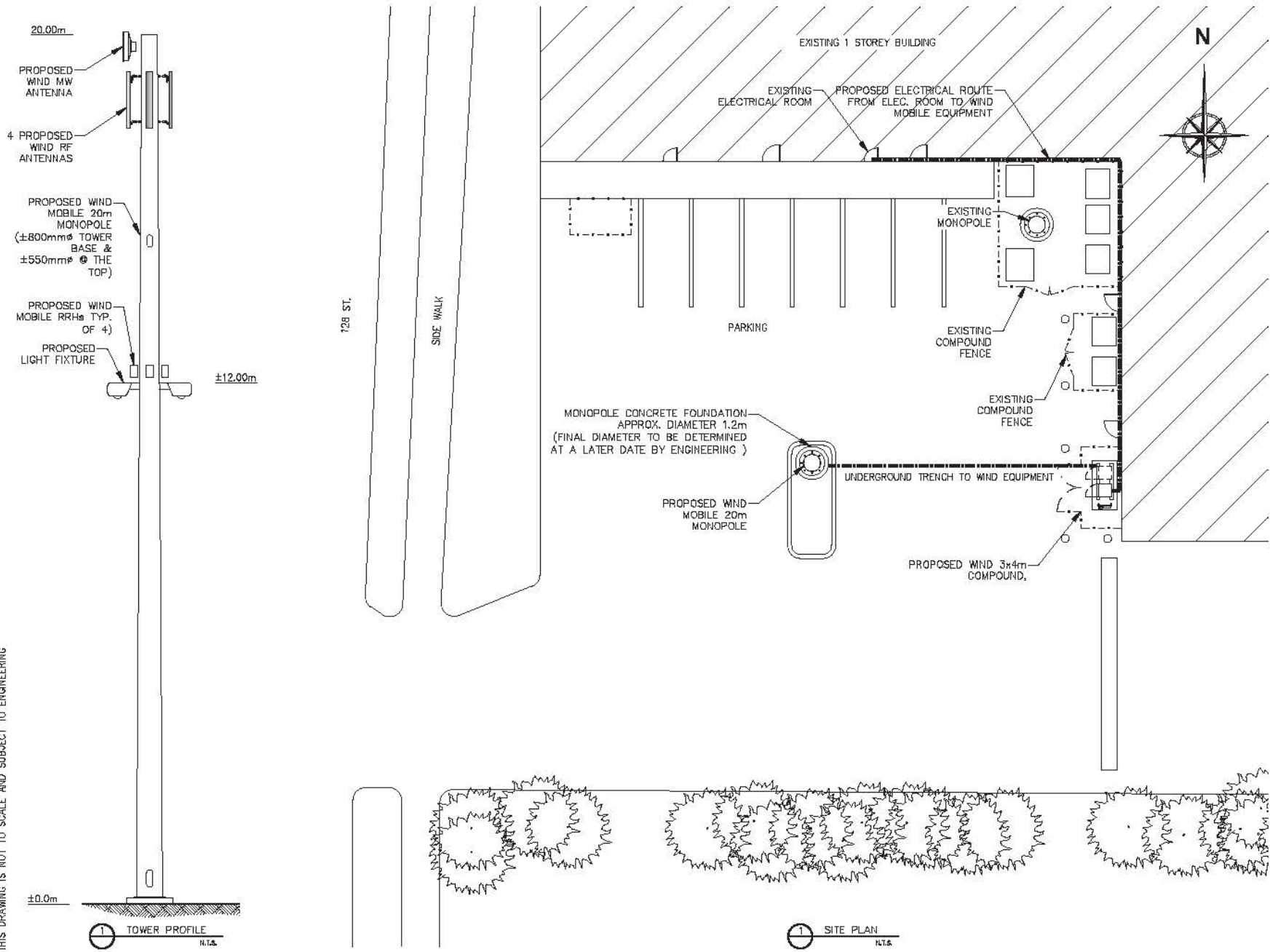
8. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.

9. This development variance permit is not a building permit.

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

Mayor – Linda Hepner

City Clerk – Jane Sullivan



NOTE:
 • THIS SKETCH FOR PROPOSAL ONLY .
 • PROPOSED DIMENSIONS ARE SUBJECT TO FINAL ENGINEERING DESIGN.

RF & TX NOTES:
 • RF REQUIREMENT:
 SEC. #1 AZ 40°
 SEC. #2 AZ 140°
 SEC. #3 AZ 230°
 SEC. #4 AZ 300°
 • M/W REQUIREMENT:
 M/#1: AZ: T.B.D

4			
3	MG	AS PER THE CITY REQ.	24 DEC 14
2	MG	AS PER THE CITY REQ.	03 DEC 14
1	MG	SCH-B	01 AUG 14
NO.	BY	DESCRIPTION	DATE



LOCATION:
 12830 96 AVE,
 SURREY, BC

TITLE:
 SITE PLAN

PROJECT NO: BVA0342
 DWG. NO: A-1

THIS DRAWING IS NOT TO SCALE AND SUBJECT TO ENGINEERING

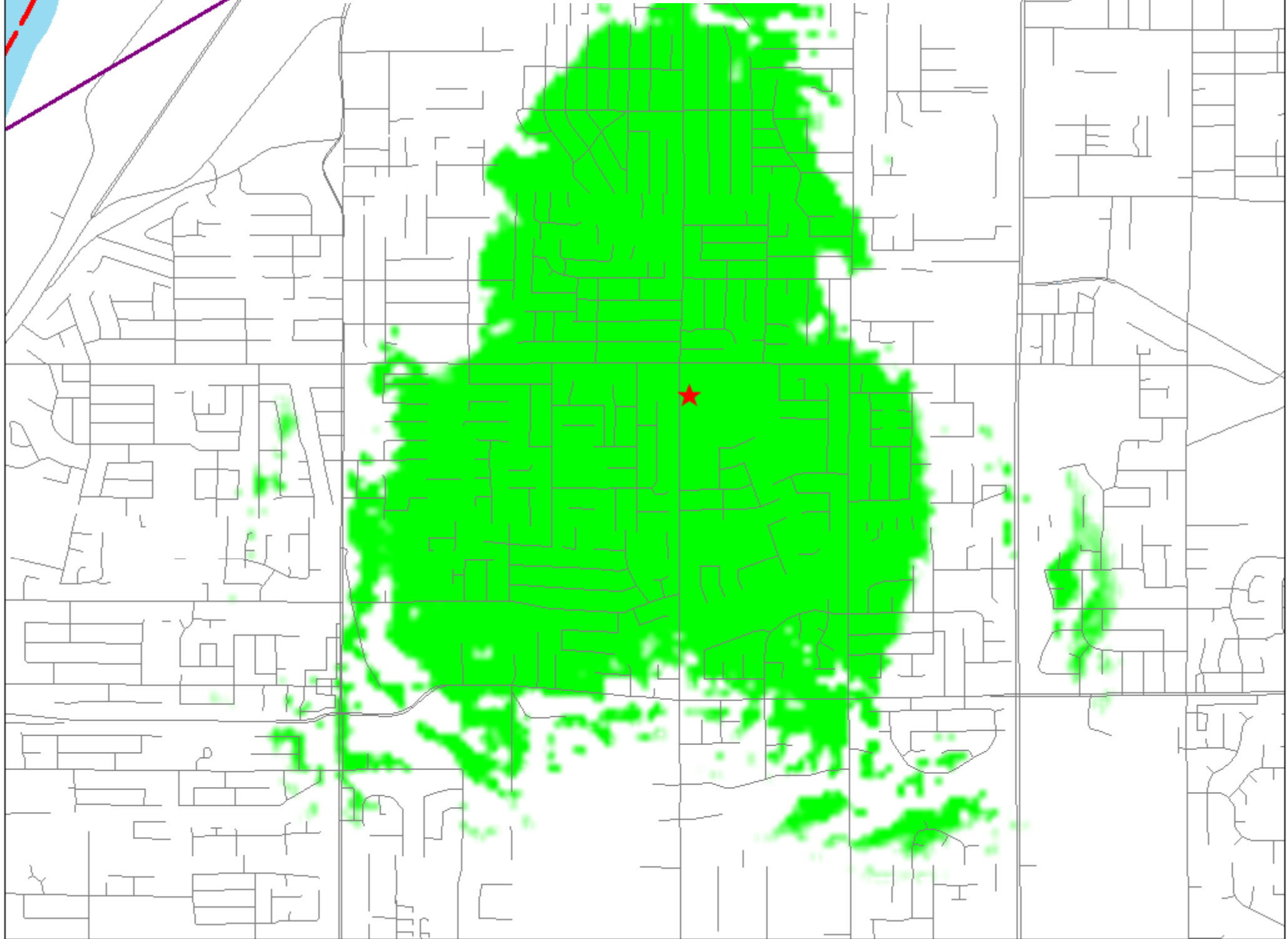
TOWER PROFILE
 N.T.S.

SITE PLAN
 N.T.S.

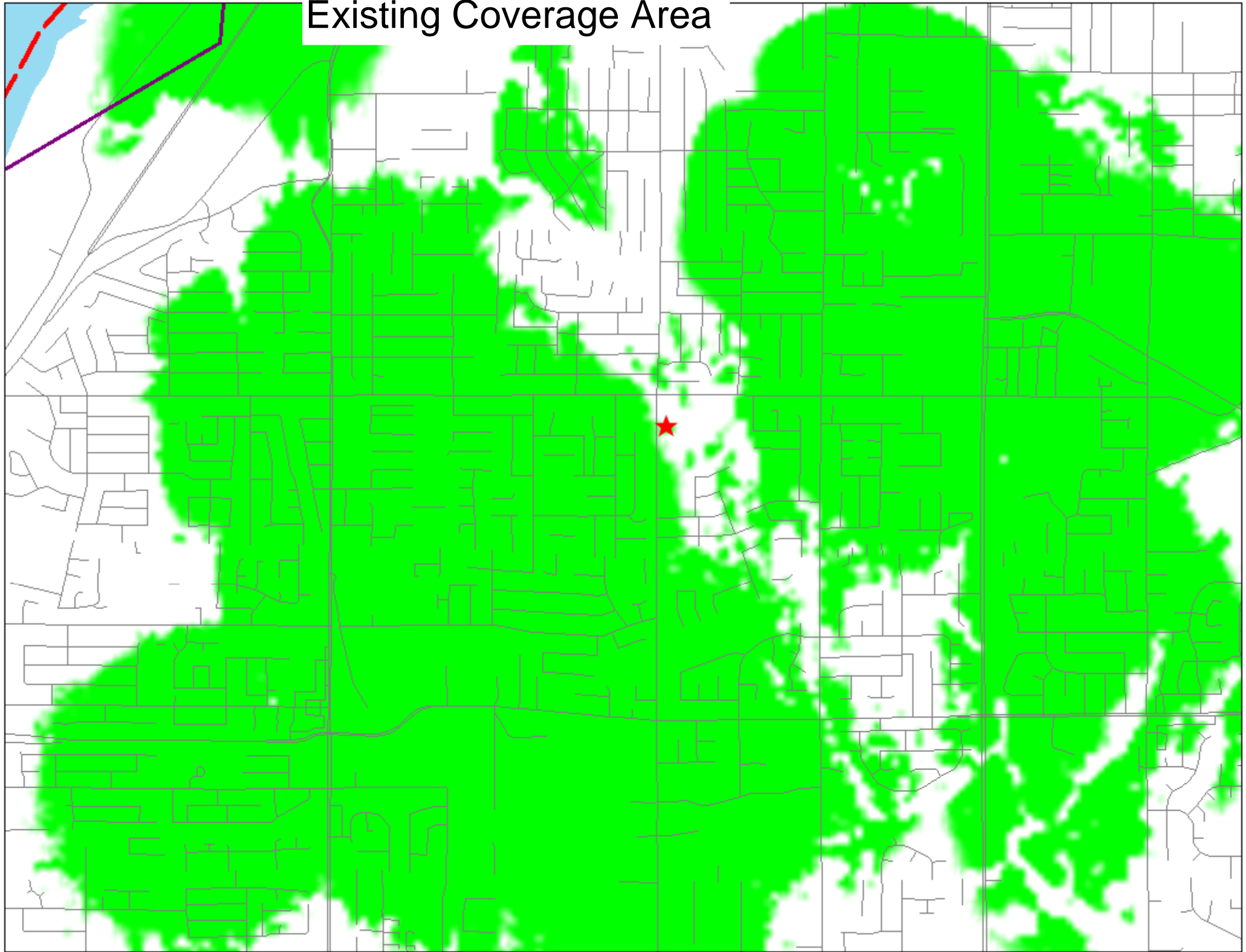
Similar 20 Metre (66 ft.) Pole from Alberta



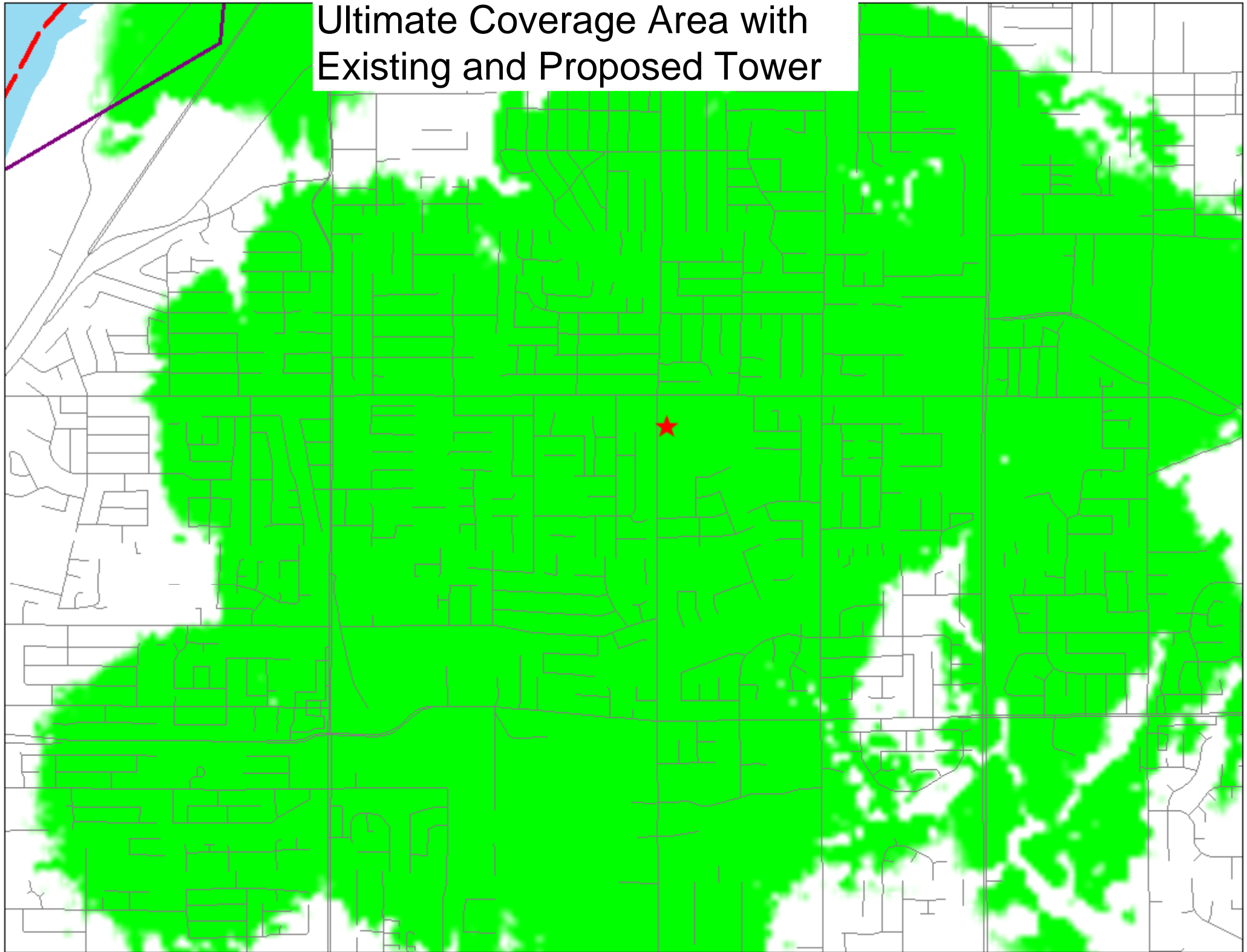
Proposed Tower Coverage Area

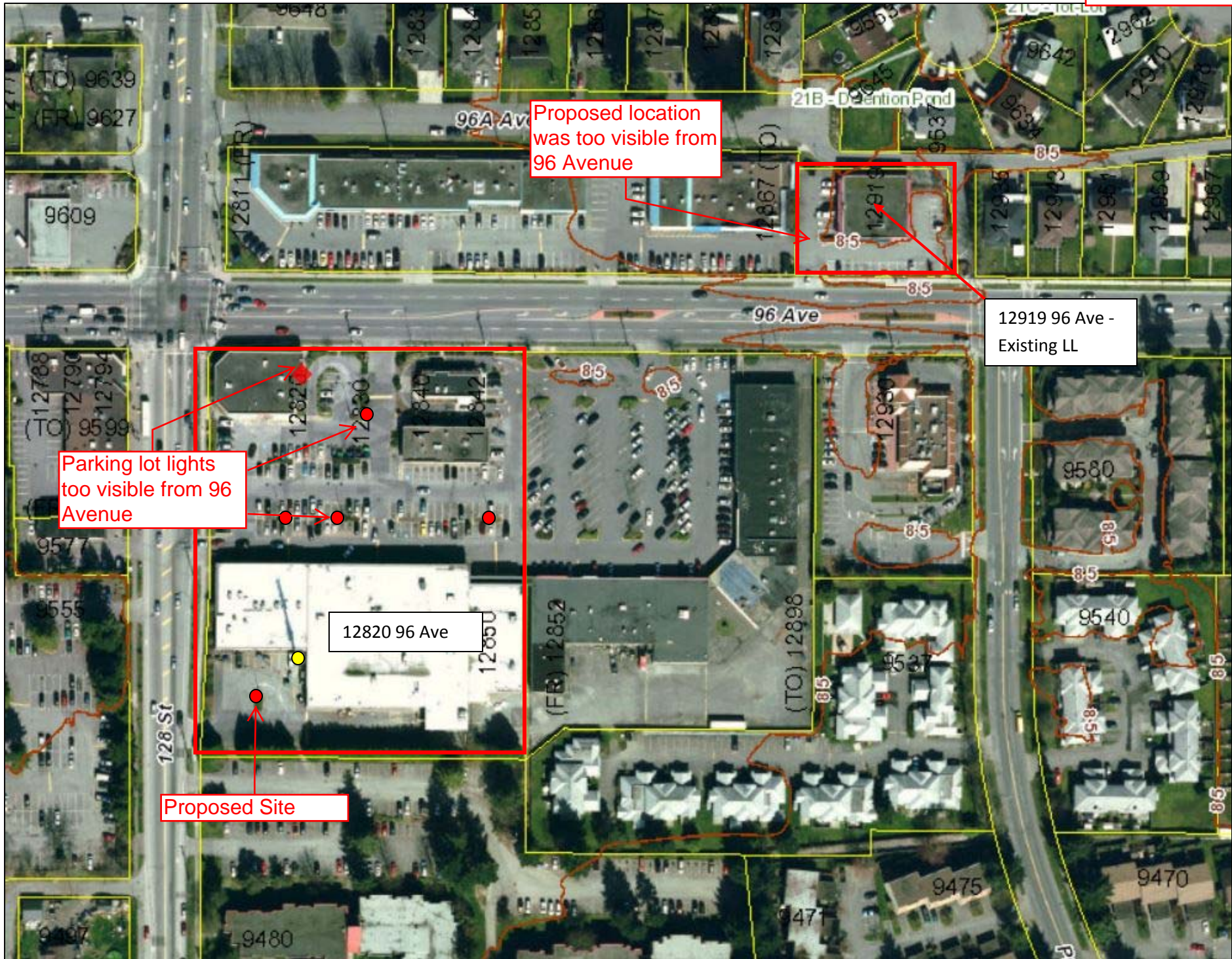


Existing Coverage Area



Ultimate Coverage Area with Existing and Proposed Tower





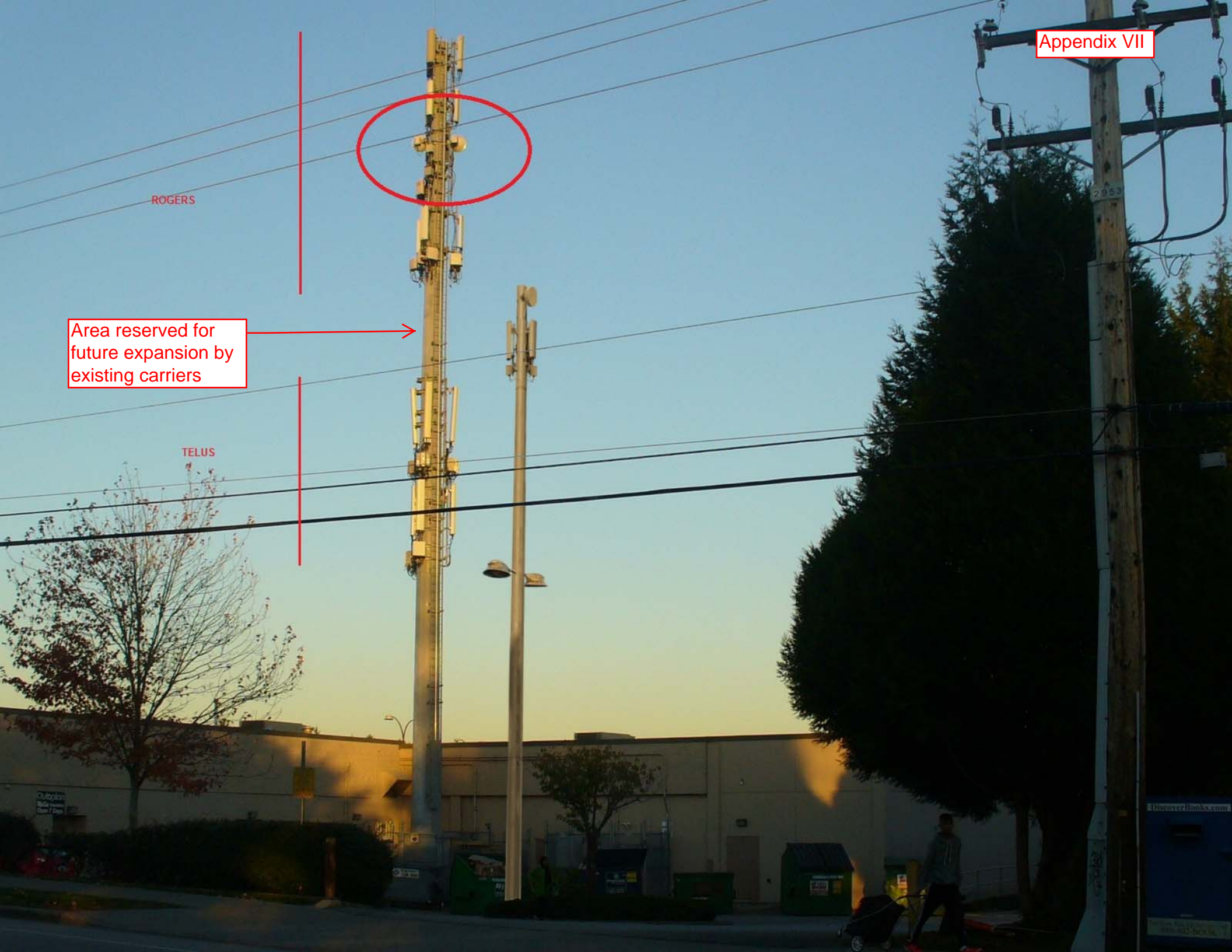
ROGERS

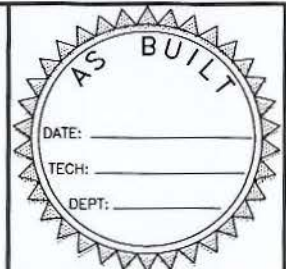
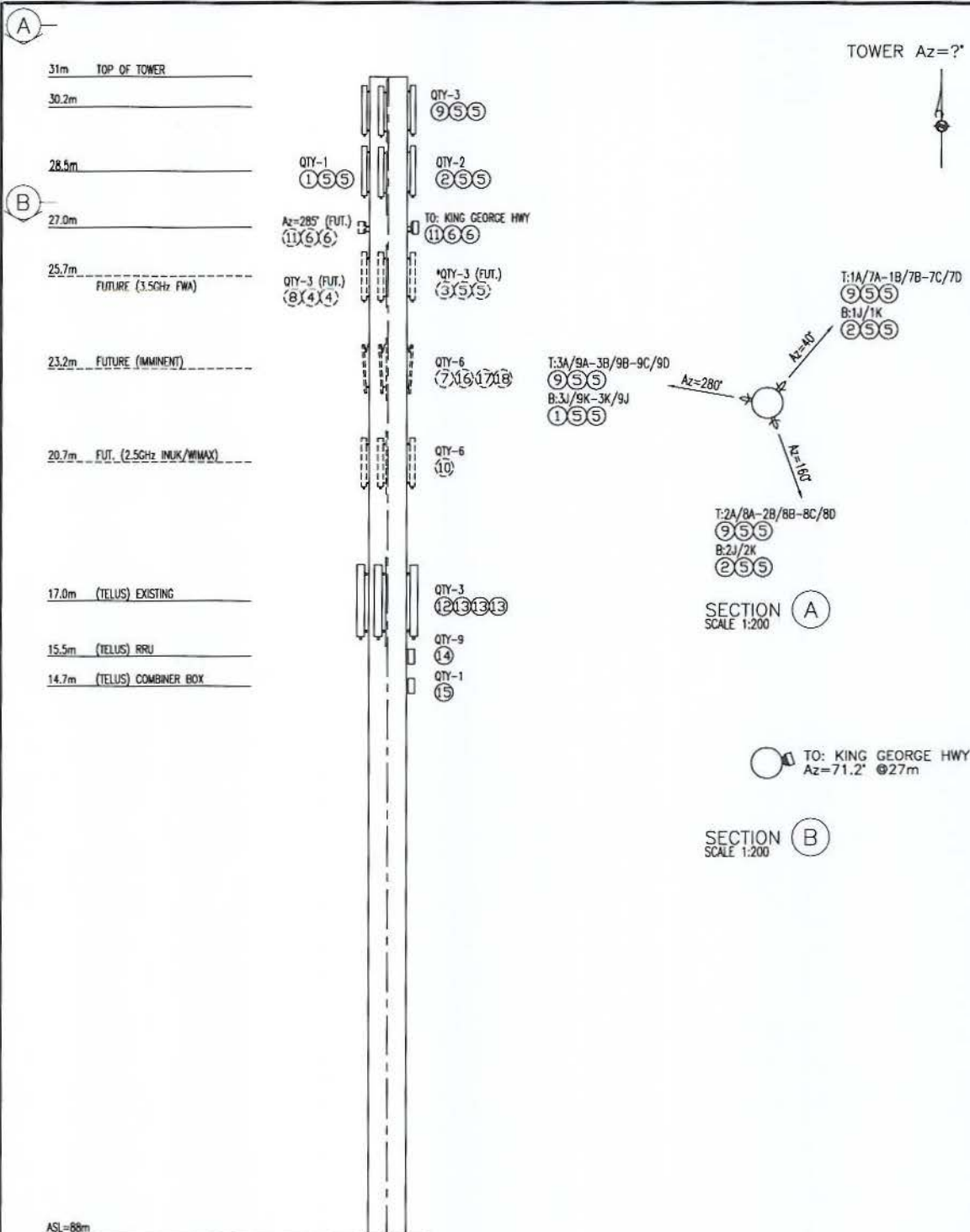


Area reserved for future expansion by existing carriers



TELUS





REV. D	DATE: 2006 09 21
	DESIGN: _____
	DRAWN: M.ROXAS
PROJECT NO.: 6946-101	
DESCRIPTION: HSDPA REPLACE (1)	
EXISTING VHP1-370A W/ (1) VHLPI-370	
1' MICROWAVE ANTENNA	
REV. E	DATE: 2007.04.12
	DESIGN: _____
	DRAWN: M.SAMARAS
PROJECT NO.: 6946-114	
DESCRIPTION: HSDPA ADD (1)	
2' M/W ANTENNA VHLPI-220	
REMOVE (1) VHP1-370A AS PER	
REVISED M/W DESIGN SUB.	
REV. F	DATE: 2007.05 28
	DESIGN: SYED IMAM
	DRAWN: SYED IMAM
PROJECT NO.: 7T04-1487	
DESCRIPTION: ADDED TELUS 3 ANTE	
NNAS AT 25 m.	
REV. G	DATE: 2009 05 08
	DESIGN: R.COLMINAS
	DRAWN: M.ROXAS
PROJECT NO.: 9947-100	
DESCRIPTION: 2009 HSPA CAPACITY	
AUGMENTATION PH1, SWAP(1) 7860 W/	
(1) 7750.1ST.0002 ANTENNA, RELABEL, AND	
ADD (1)TA-RAD-2DPX/DB/D19	
DIPLEXER AS PER CIVIL SUBMISSION	
REV. H	DATE: 2009-10-20
	DESIGN: -
	DRAWN: J.NECLIA
PROJECT NO.: 7T04-1487	
DESCRIPTION: TELUS CO-LOCATE:	
ADD (3) 800-10291 @ 17m & (9) RRU's	
@ 15.7m	
REV. I	DATE: 2010-08-10
	DESIGN: R. COLMINAS
	DRAWN: T. HIEN
PROJECT NO.: 9947-100	
DESCRIPTION: AS-BUILT, HSPA 2009	
SWAPPED EX. (1)7860.00 W/ (1)7750	
@28.5m FOR SECTOR 3; REV G.	
REV. J	DATE: 2010 11 10
	DESIGN: -
	DRAWN: L.LOREK
PROJECT NO.: 7T04-1487	
DESCRIPTION: AS-BUILT-TELUS CO-LOCATE	
ADDED (3) 800-10291 @ 17m & (9) RRU's @ 15.5m	
& (1) COMBINER BOX @ 14.7m	

ASL=88m
ELEVATION
SCALE 1:150

NOTE:
THIS TOWER IS OWNED BY ROGERS WIRELESS.
* ORIGINALLY DESIGNED FUTURE

ITEM	QTY.	DESCRIPTION	PART NO.
1	1	DUAL BAND ANTENNA	7750.1ST.0002.00
2	2	ROGERS X POL. CELLULAR ANTENNA	7860.00
3	3	PCS ANTENNA (FUTURE)	PCSX060-1B-XQ
4	6	1-5/8" FOAM HELIAX (FUTURE)	VXL7-50A
5	18	ROGERS 7/8" FOAM HELIAX (6 FUTURE)	LDF5-50A
6	4	3/8" FOAM HELIAX (2 FUTURE)	LDF2-50A
7	6	POWERWAVE ANTENNA (FUTURE-IMMINENT)	7750
8	3	3.5 GHz TIL-TEK SECTORIZATION (FUTURE)	TA-3307-65
9	3	HEX ANTENNA JAY_	X65-13-AAA-D
10	6	2.5 GHz JAYBEAM SECTORIZATION (FUTURE)	BMV090X12M000
11	2	2' MICROWAVE ANTENNA (1 FUTURE)	VHLP2-220
12	3	TELUS DUAL BAND ANTENNA	800-10291
13	9	TELUS FEEDER LINES	FIBRE
14	9	TELUS RRU's	RRU
15	1	TELUS COMBINER BOX	POWER BOX

16	6	ERICSSON RRU (FUTURE)	-
17	6	DC POWER LINES (FUTURE)	-
18	6	FIBER LINES (FUTURE)	-

SCALE: 1:150 AS BUILT TO REV:
PREVIOUS DWG NO. AND SHEET:

**TOWER PROFILE
ELEVATION & SECTIONS
CEDAR HILL**

LOCATION CODE: W1487 ALPHA CODE: V23E
DRAWING NUMBER:
W1487-BE1001-J



Pictures

Trees screening the proposed tower from apartments to the south

View SE



View S



View SW



View W



View NW



View of existing pole and island from NW



View north across proposed WIND equipment area to Rogers (L) and Telus (R) equipment areas



West wall of electrical room most adjacent to proposed tower location. Telus equipment on left



Line of Microwave Dish Sight to Communicate with 13352 Old Yale Road

BVA0342 LINE OF SIGHT

