

City of Surrey  
**PLANNING & DEVELOPMENT REPORT**

Application No.: 7920-0014-00

Planning Report Date: November 9, 2020

**PROPOSAL:**

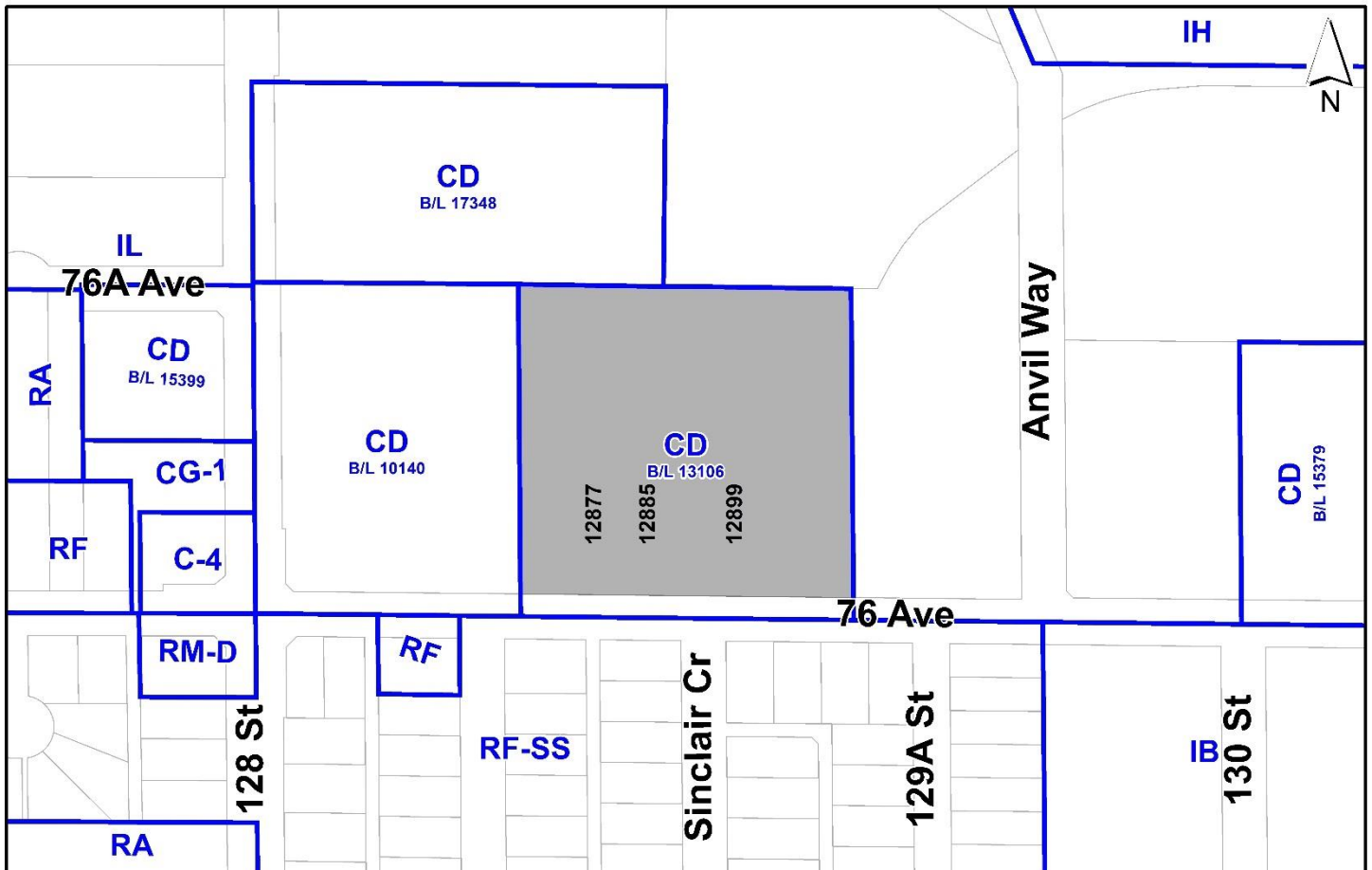
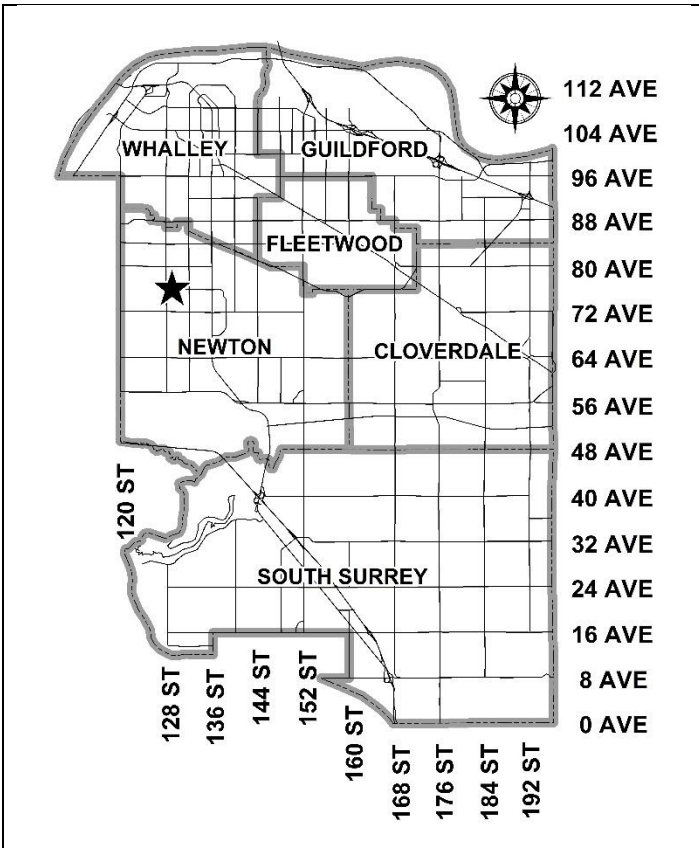
- **Development Variance Permit**

to increase the maximum height of a free-standing telecommunications tower from 12 metres to 33 metres and reduce the required west side yard setback and rear yard setback.

**LOCATION:** 12877 - 76 Avenue  
 (12885 - 76 Avenue)  
 (12899 - 76 Avenue)

**ZONING:** CD (By-law No. 13106)

**OCP DESIGNATION:** Industrial



**RECOMMENDATION SUMMARY**

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

**DEVIATION FROM PLANS, POLICIES OR REGULATIONS**

- Proposing to increase the maximum height for a free-standing telecommunication tower under Part 4 General Provisions of the Zoning Bylaw.
- Proposing to reduce the side yard and rear yard setback requirements of CD Zone (By-law No. 13106).

**RATIONALE OF RECOMMENDATION**

- The proposal complies with the majority of criteria identified in the City's Policy for Telecommunications Towers.
- The applicant has provided information indicating that there are no existing structures of sufficient height that are suitable to mount telecommunication equipment within a 500-metre (1,640 ft.) radius of the subject site.
- The public notification for the proposal generated five (5) comments from the mailing addresses within 180 metres of the proposed telecommunication tower. All public comments on the proposal stated support for the proposed tower.
- The proposed location of the tower is at the rear of an industrial lot bordering adjacent industrial lands and at a distance of approximately 130 metres from the nearest public street.
- 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 provide better service to existing and potentially new customers.

## RECOMMENDATION

The Planning & Development Department recommends that:

1. Council approve Development Variance Permit No. 7920-0014-00 (Appendix II) varying the following, to proceed to Public Notification:
  - (a) to reduce the minimum rear yard setback of the CD Zone (By-law No. 13106) from 7.5 metres to 6.4 metres for the telecommunication tower and 2.5 metres for the associated equipment compound;
  - (b) to reduce the minimum west side yard setback of the CD Zone (By-law No. 13106) from 7.5 metres to 4.5 metres for the telecommunication tower and 1.0 metres for the associated equipment compound; and
  - (c) 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 to 33 metres.

## SITE CONTEXT & BACKGROUND

Direction	Existing Use	OCP Designation	Existing Zone
Subject Site	Industrial Buildings	Industrial	CD (By-law No. 13106)
North :	Industrial Buildings	Industrial	IL / CD (By-law No. 17348)
East:	Industrial Buildings	Industrial	IL
South (Across 76 Avenue):	Single Family dwellings	Urban	RF-SS
West:	Industrial Buildings	Industrial	CD (Bylaw No. 10140)

### Context & Background

- The subject property, located at 12877, 12885, and 12899 – 60 Avenue, is 20,680 square metres in size. The subject property is designated "Industrial" in the Official Community Plan (OCP) and zoned "Comprehensive Development Zone (CD)" (By-law No. 13106).
- The subject property contains a commercial strata complex with four buildings and a total of 73 strata lots.

## DEVELOPMENT PROPOSAL

### Planning Considerations

- Cypress Land Services Ltd. on behalf of Telus is proposing to erect a 33 metre tall telecommunications tower and equipment compound located in the northwest corner of the subject site. The proposed monopole is 30 metres tall consisting of 9 panel antennas with a 3 metre tall lightning rod attached at the top resulting in a total height of 33 metres (Appendix I).
- The Zoning By-law allows for maximum 12 metre tall telecommunication towers in all zones.
- The applicant is proposing a Development Variance Permit to increase the maximum height of a telecommunication tower from 12 metres to 33 metres and to reduce the rear yard and side west yard setbacks to the tower and equipment compound.

### Referrals

Engineering:	The Engineering Department has no comments on the proposal.
Parks, Recreation & Culture:	No referral required.
Surrey Fire Department:	No objections to the proposal.

## POLICY & BY-LAW CONSIDERATIONS

- Staff have conveyed to telecommunication companies the importance of a comprehensive strategy to ensure adequate coverage for all carriers while minimizing the number of singular user installations. Staff have also emphasized the importance of keeping the height of installations to a minimum without compromising the existing policy guidelines, especially tower proximity to residential areas and to ensure that an appropriate design is being considered.
- 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 tower is required for current and future network capacity upgrades. This tower will provide increased service to the surrounding area. Many residents and businesses use wireless service as their primary means of communication and have come to expect it as an essential utility.
- The proposed telecommunications tower supports the City of Surrey's vision for building a strong economy.

### City's Telecommunications Strategy

- The subject application generally complies with the current Telecommunications Tower Policy No. O-49.
- 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 BC Hydro transmission line towers, utility poles, roof tops, etc.

*The applicant has indicated that they require a 33 metre height in order to ensure an expanded infill coverage area bounded by 80 Avenue to the north, King George Boulevard to the east, 72 Avenue to the south, and 124 Street to the west (see Appendix III).*

*The applicant has informed staff that there are no existing structures within a 500-metre radius from the proposed location of the telecommunication tower that have the necessary height to facilitate the increased coverage area. They have provided a map of all existing telecommunication towers in the area (Appendix V).*

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

*The proposed location is located within an industrial area and is approximately 160 metres away from residential dwellings to the south.*

- 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 within an industrial area and does not contain any 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 33 metre tall wireless installation is located at the rear of an industrial lot, approximately 130 metres from 76 Avenue.*

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

*The subject site currently has a few undersized trees, however, no mature trees within the rear of the site where the telecommunication tower is proposed.*

- 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 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).

*The applicant has advised that there are no suitable structures of sufficient height for mounting equipment within a 500-metre radius of the subject site to facilitate the increased coverage area.*

#### Co-Location

- The carriers and other telecommunication tower owners are encouraged to work co-operatively 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".

*The telecom provider explored co-location opportunities on existing tower installations to the east at a Translink Bus Yard property and on BC Hydro Transmission Towers to the West. Neither of the sites would be suitable for an installation that could meet the network objectives of Telus. The subject site was ultimately identified as the best solution to improve coverage for Telus in the surrounding area.*

*Freedom Mobile and Rogers have both confirmed their interest in co-locating on the proposed tower with Telus in the future. At this time only Telus antennas are proposed on the telecommunication tower.*

#### 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 proposed tower is located at the rear of an industrial property, approximately 130 metres from any road. The surrounding properties to the side and rear of the proposed tower are industrial.*

- 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 is a monopole (single pole) design.*

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

*No landscaping is proposed for screening as the tower and compound are located at the rear of an industrial lot surrounded by industrial lands. The tower is located approximately 160 metres from the nearest residential dwelling. The applicant has provided photo simulations displaying what the tower will look like from across 76 Avenue to the South (Appendix IV).*

**Zoning By-law and CD By-law No. 13106**

- The applicant is requesting the following variances:
  - to reduce the minimum rear yard setback of the CD Zone (By-law No. 13106) from 7.5 metres to 6.4 metres for the telecommunication tower and 2.5 metres for the associated equipment compound;
  - to reduce the minimum west side yard setback of the CD Zone (By-law No. 13106) from 7.5 metres to 4.5 metres for the telecommunication tower and 1.0 metres for the associated equipment compound; and
  - 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 to 33 metres.
- Reducing the side yard and rear yard setbacks in the northwest corner of the subject site limits the proposed tower's impact to on-site vehicular circulation or reduction in on-site parking spaces.
- As the tower and equipment compound are proposed at the rear of an industrial lot, setback approximately 130 metres from the nearest road, no landscaping or screening is proposed.
- Staff support the requested variances to proceed for consideration.

**PUBLIC ENGAGEMENT**

In accordance with the City policy, the applicant sent out 517 notification packages on September 25, 2020 to mailing addresses within a notification area of 180 metres, which is approximately six times the height of the proposed tower.

As a result of these notifications, five (5) responses were received by the applicant concerning the proposed tower and staff did not receive any responses. All five (5) responses submitted proclaimed support for the proposal.

**TREES**

- No trees are proposed to be removed to accommodate either the compound or monopole.

## INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Site Plan and Elevations
Appendix II.	Development Variance Permit No. 7920-0014-00
Appendix III.	Coverage Maps
Appendix IV.	Photo Renderings
Appendix V.	Existing Installations in the Area

*approved by Shawn Low*

Jean Lamontagne  
General Manager  
Planning and Development

WS/cm





**KEY PLAN**  
SCALE: N.T.S.

**1 SITE PLAN**  
SCALE: 1:750

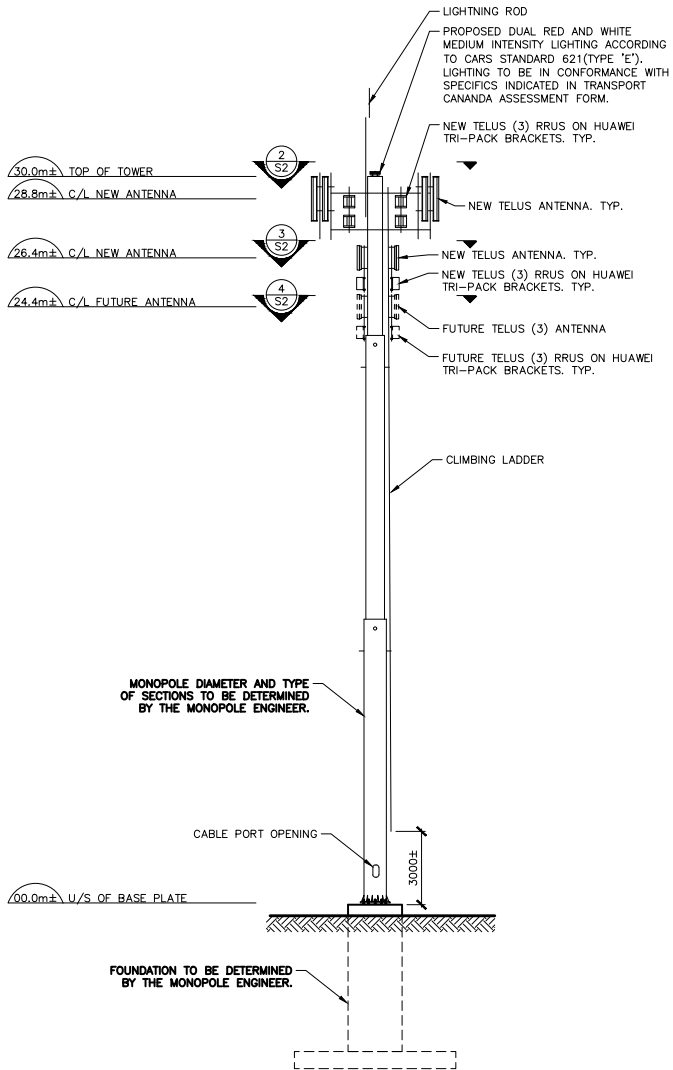
- NOTES:**
- 1) ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS NOTED OTHERWISE.
  - 2) FOR THE TOPOGRAPHIC ELEVATIONS REFER TO THE SITE PLAN FOR PROPOSED 30m MONOPOLE LOCATION PREPARED BY «WSP - GEOMATICS». FINAL MEASUREMENTS TO BE CONFIRMED WITH MOST RECENT SURVEY.

OWNER:

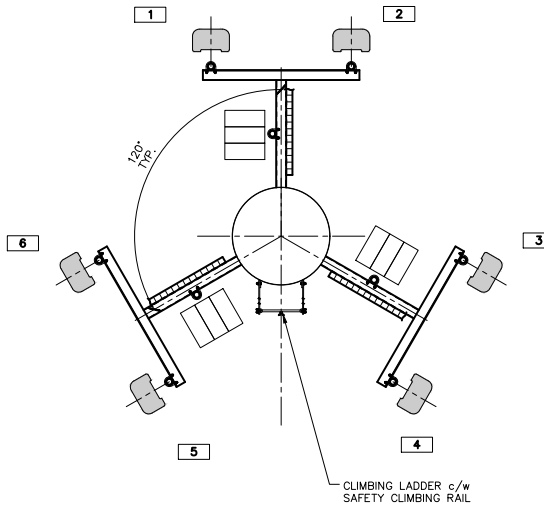
#100-20230 96TH AVE, LANGLEY, BRITISH COLUMBIA  
V3V 0E4, PHONE: (604)230-1411 WWW.WSP.COM

1	RE-ISSUED FOR REVIEW	06/17/2019	T.A.
0	ISSUED FOR REVIEW	06/03/2019	T.A.
REV.	DESCRIPTION	DATE	BY
SITE: ANVIL WAY & 76 AVE.		SCALE: AS SHOWN	
TELUS CODE: BC2250		DATE: 06/17/2019	
TITLE: SITE PLAN		DRAWN BY: T.A.	
		CHECKED BY: P.A.	
		PROJECT: 191-06400-00-120	
		DRAWING No: S1	

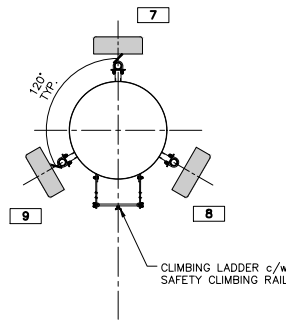
FILE No: 191-06400-00-120.DWG



**1 TOWER PROFILE**  
S2 SCALE: 1:200



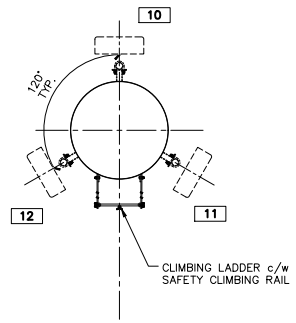
**2 ANTENNA SCHEMATIC PLAN @ 28.8m**  
S2 SCALE: 1:50



**3 ANTENNA SCHEMATIC PLAN @ 26.4m**  
S2 SCALE: 1:50

**GENERAL NOTES:**

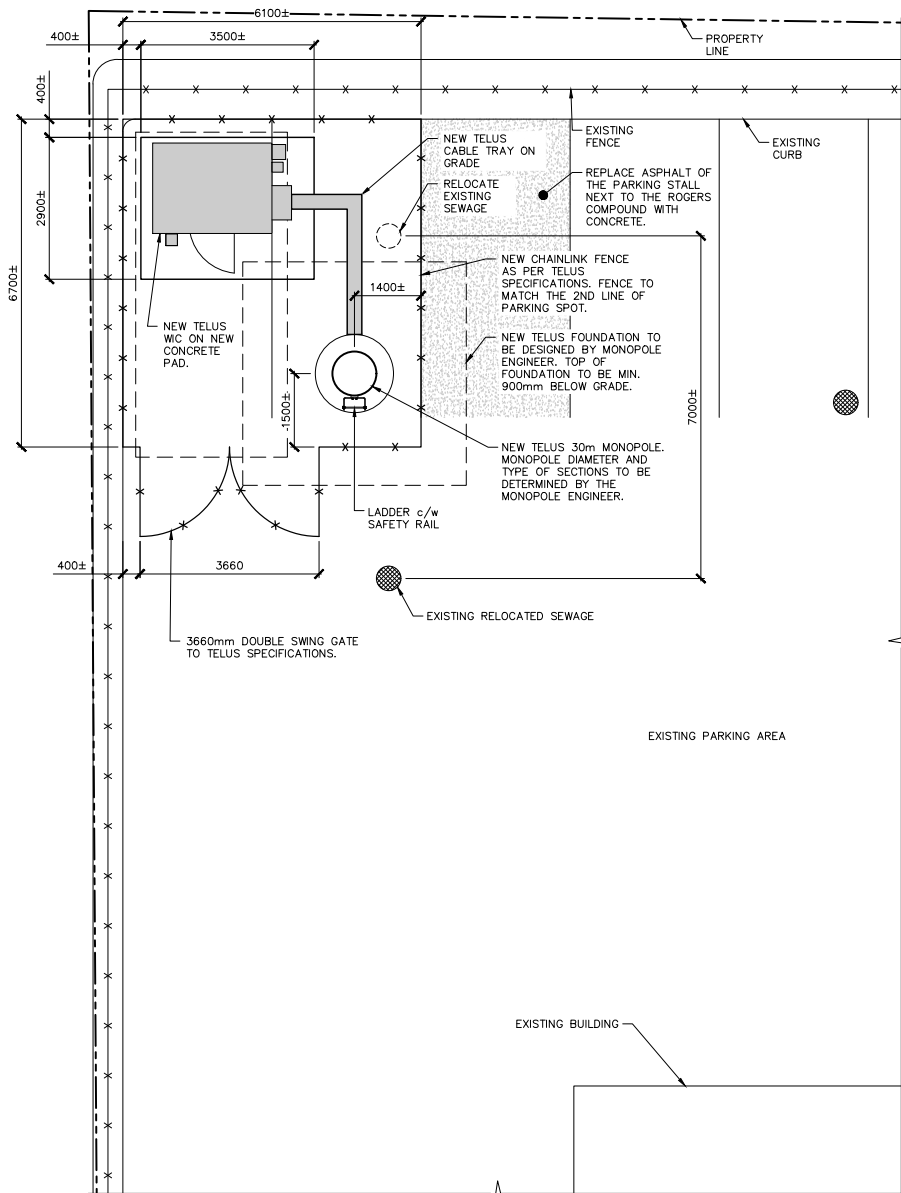
1. ENSURE 1m MINIMUM VERTICAL SEPARATION EDGE-TO-EDGE BETWEEN ANTENNA LEVELS.
2. LIGHTNING ARRESTOR MOUNTED TO TOWER TO PROVIDE 45° COVERAGE OVER ANTENNAS.
3. ALL DIMENSIONS ON THIS DRAWING ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
4. INSTALL LIGHTING ON TOWER AS PER TRANSPORT CANADA REQUIREMENTS.
5. TOWER DESIGN & PINWHEEL DESIGN BY OTHERS TO MEET ALL TELUS REQUIREMENTS.
6. FACE WIDTH, HEIGHT AND TYPE OF PANEL TO BE DETERMINED BY THE TOWER DESIGNER CONTRACTOR.



**4 FUTURE ANTENNA SCHEMATIC PLAN @ 24.4m**  
S2 SCALE: 1:50



1	RE-ISSUED FOR REVIEW	06/17/2019	T.A.
0	ISSUED FOR REVIEW	06/03/2019	T.A.
REV.	DESCRIPTION	DATE	BY
SITE: ANVIL WAY & 76 AVE.		SCALE: AS SHOWN	
TELUS CODE: BC2250		DATE: 06/17/2019	
TITLE: TOWER PROFILE AND ANTENNA PLAN		DRAWN BY: T.A.	
		CHECKED BY: P.A.	
		PROJECT: 191-06400-00-120	
		DRAWING No: S2	



**1**  
S3  
**COMPOUND LAYOUT**  
SCALE: 1:100

**NOTES:**

- 1) ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS NOTED OTHERWISE.
- 2) REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL ROUTING.
- 3) SHELTER TO BE ALIGNED WITH COMPOUND FENCE.



**2**  
S3  
**EXISTING CONDITIONS**  
SCALE: N.T.S.

OWNER:

#100-20239 96TH AVE, LANGLEY, BRITISH COLUMBIA  
V3M 0E4, PHONE: (604)238-1411 WWW.WSP.CO.VI

1	RE-ISSUED FOR REVIEW	06/17/2019	T.A.
0	ISSUED FOR REVIEW	06/03/2019	T.A.
REV.	DESCRIPTION	DATE	BY
SITE: ANVIL WAY & 76 AVE.		SCALE: AS SHOWN	
TELUS CODE: BC2250		DATE: 06/17/2019	
TITLE: COMPOUND LAYOUT		DRAWN BY: T.A.	
		CHECKED BY: P.A.	
		PROJECT: 191-06400-00-120	
		DRAWING No: S3	

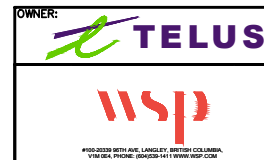
ANTENNA LIST – TELUS

ANTENNA NO.	HEIGHT ANT. CENTRE (m)	TECHNOLOGY/ LABEL	ANTENNA MODEL	AZIMUTH (°)	MECHANICAL DOWNTILT (°)	# OF RRUS (TOWER LOADING)	LINE TYPE	STATUS
1	28.8m	T.B.D.	HPA-65R-BUU-H6	0	T.B.D.	3	(1) DC & (1) FIBRE	INITIAL
2	28.8m	T.B.D.	HPA-65R-BUU-H6	0	T.B.D.	3		INITIAL
3	28.8m	T.B.D.	HPA-65R-BUU-H6	120	T.B.D.	3	(1) DC & (1) FIBRE	INITIAL
4	28.8m	T.B.D.	HPA-65R-BUU-H6	120	T.B.D.	3		INITIAL
5	28.8m	T.B.D.	HPA-65R-BUU-H6	240	T.B.D.	3	(1) DC & (1) FIBRE	INITIAL
6	28.8m	T.B.D.	HPA-65R-BUU-H6	240	T.B.D.	3		INITIAL
7	26.4m	T.B.D.	AAU5711a	0	T.B.D.	2	(1) DC & (1) FIBRE	INITIAL
8	26.4m	T.B.D.	AAU5711a	120	T.B.D.	2	(1) DC & (1) FIBRE	INITIAL
9	26.4m	T.B.D.	AAU5711a	240	T.B.D.	2	(1) DC & (1) FIBRE	INITIAL
10	24.4m	T.B.D.	AAU5711a	0	T.B.D.	2	(1) DC & (1) FIBRE	FUTURE
11	24.4m	T.B.D.	AAU5711a	120	T.B.D.	2	(1) DC & (1) FIBRE	FUTURE
12	24.4m	T.B.D.	AAU5711a	240	T.B.D.	2	(1) DC & (1) FIBRE	FUTURE

**NOTES:**

1. THE ELEVATION OF THE ANTENNAS ARE TAKEN WITH RESPECT TO ELEVATION 0.0m (UNDERSIDE OF THE BASEPLATE).
2. THE REFERENCE FOR THE ANTENNAS IS LOCATED AT THE CENTER OF THE ANTENNA.
3. THE ANTENNA LIST IS BASED OFF THE TELUS RADIO SITE QUALIFICATION DATED MAY 15, 2019.

FILE No: 191-06400-00-120.DWG



1	REISSUED FOR REVIEW	06/17/2019	T.A.
0	ISSUED FOR REVIEW	06/03/2019	T.A.
REV.	DESCRIPTION	DATE	BY
SITE:	ANVIL WAY & 76 AVE.	SCALE: AS SHOWN	
TELUS CODE: BC2250		DATE: 06/17/2019	
TITLE:	LIST OF ANTENNAS	DRAWN BY: T.A.	
		CHECKED BY: P.A.	
		PROJECT: 191-06400-00-120	
		DRAWING No:	S4

#100-32329 96TH AVE, LANGLEY, BRITISH COLUMBIA  
V3V 5E4. PHONE: (604)238-1411 WWW.WSP.COM

CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7920-0014-00

Issued To:

(the "Owner")

Address of Owner:

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:

Legal:

Common Property Strata Plan LMS2987

12877 - 76 Avenue

12885 - 76 Avenue

12899 - 76 Avenue

(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 height of a telecommunication tower is increased from 12 metres to 33 metres;
  - (b) In Section F of Setbacks of "Comprehensive Development Zone (CD)" (By-law No. 13106) the minimum rear yard setback for principal and accessory buildings & structures is reduced from 7.5 metres to 6.4 metres for the telecommunication tower and 2.5 metres for the associated equipment compound; and
  - (c) In Section F of Setbacks of "Comprehensive Development Zone (CD)" (By-law No. 13106) the minimum side west yard setback for principal and accessory buildings & structures is reduced from 7.5 metres to 4.5 metres for a telecommunication tower and 1.0 metres for the associated equipment compound.

4. The siting of buildings and structures shall be in accordance with the drawings numbered 7920-0014-00(A) through to and including 7920-0014-00(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 buildings and structures on the Land shown on drawing 7920-0014 (B) 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 drawing 7920-0014 (B), 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 .

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Mayor – Doug McCallum

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City Clerk – Jennifer Ficocelli



**KEY PLAN**  
SCALE: N.T.S.

**1 SITE PLAN**  
SCALE: 1:750

FILE No: 191-06400-00-120.DWG

**NOTES:**

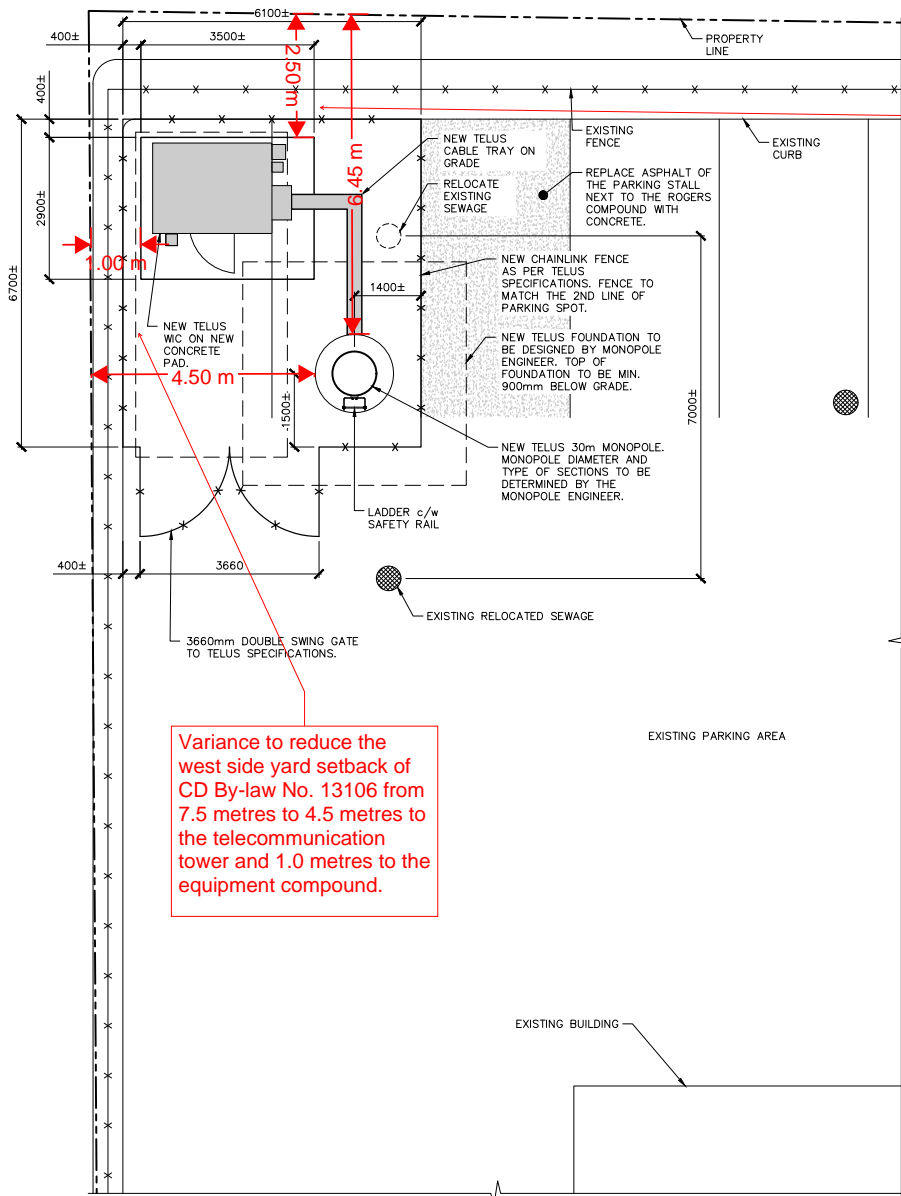
- 1) ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS NOTED OTHERWISE.
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OWNER:




#100-32329 96TH AVE, LANGLEY, BRITISH COLUMBIA  
V3V 0E4, PHONE: (604)230-1411 WWW.WSP.COM

1	RE-ISSUED FOR REVIEW	06/17/2019	T.A.
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REV.	DESCRIPTION	DATE	BY
SITE:	ANVIL WAY & 76 AVE.	SCALE: AS SHOWN	
TELUS CODE:	BC2250	DATE: 06/17/2019	
TITLE:	SITE PLAN	DRAWN BY: T.A.	
		CHECKED BY: P.A.	
		PROJECT: 191-06400-00-120	
		DRAWING No:	S1



Variance to reduce the west side yard setback of CD By-law No. 13106 from 7.5 metres to 4.5 metres to the telecommunication tower and 1.0 metres to the equipment compound.

Variance to reduce the rear yard setback of CD By-law No.13106 from 7.5 metres to 6.4 metres to the telecommunication tower and 2.5 metres to the equipment compound.



NOTES:

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- 2) REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL ROUTING.
- 3) SHELTER TO BE ALIGNED WITH COMPOUND FENCE.



2 EXISTING CONDITIONS  
SCALE: N.T.S.

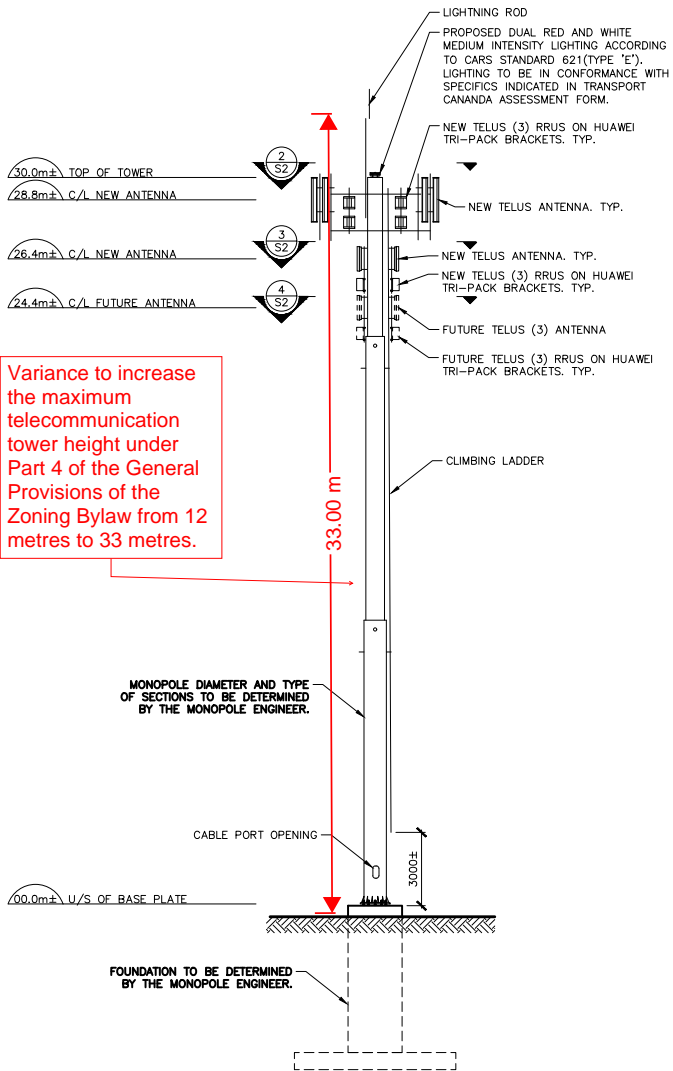
1 COMPOUND LAYOUT  
SCALE: 1:100

OWNER:

#100-20239 96TH AVE, LANGLEY, BRITISH COLUMBIA  
V3V 0E4, PHONE: (604)203-1411 WWW.WSP.CO.VC

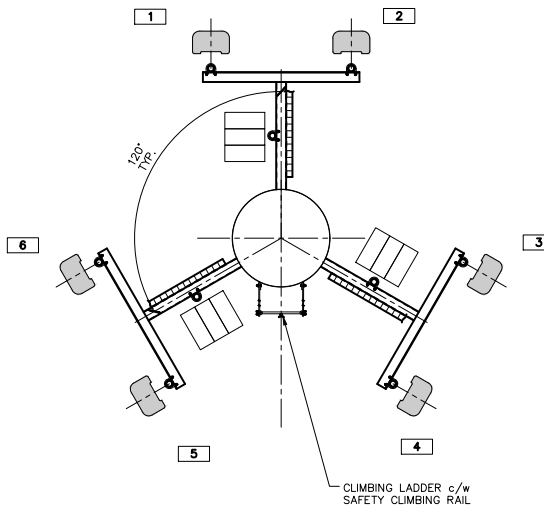
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REV.	DESCRIPTION	DATE	BY
SITE: ANVIL WAY & 76 AVE.		SCALE: AS SHOWN	
TELUS CODE: BC2250		DATE: 06/17/2019	
TITLE: COMPOUND LAYOUT		DRAWN BY: T.A.	
		CHECKED BY: P.A.	
		PROJECT: 191-06400-00-120	
		DRAWING No:	
		S3	



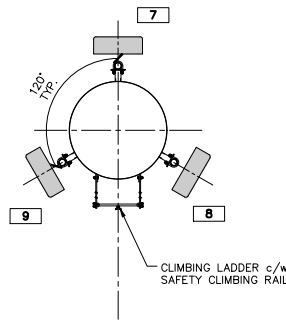


Variance to increase the maximum telecommunication tower height under Part 4 of the General Provisions of the Zoning Bylaw from 12 metres to 33 metres.

**1 TOWER PROFILE**  
S2 SCALE: 1:200



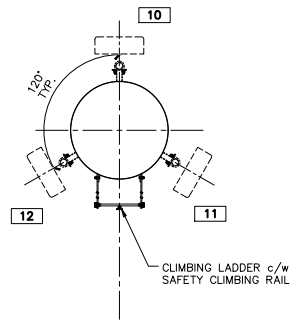
**2 ANTENNA SCHEMATIC PLAN @ 28.8m**  
S2 SCALE: 1:50



**3 ANTENNA SCHEMATIC PLAN @ 26.4m**  
S2 SCALE: 1:50

**GENERAL NOTES:**

1. ENSURE 1m MINIMUM VERTICAL SEPARATION EDGE-TO-EDGE BETWEEN ANTENNA LEVELS.
2. LIGHTNING ARRESTOR MOUNTED TO TOWER TO PROVIDE 45° COVERAGE OVER ANTENNAS.
3. ALL DIMENSIONS ON THIS DRAWING ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
4. INSTALL LIGHTING ON TOWER AS PER TRANSPORT CANADA REQUIREMENTS.
5. TOWER DESIGN & PINNACLES DESIGN BY OTHERS TO MEET ALL TELUS REQUIREMENTS.
6. FACE WIDTH, HEIGHT AND TYPE OF PANEL TO BE DETERMINED BY THE TOWER DESIGNER CONTRACTOR.



**4 FUTURE ANTENNA SCHEMATIC PLAN @ 24.4m**  
S2 SCALE: 1:50

OWNER:

#100-2020 96TH AVE, LANGLEY, BRITISH COLUMBIA  
V3V 5E4, PHONE: (604)20-1411 WWW.WSP.CO.V

1	RE-ISSUED FOR REVIEW	06/17/2019	T.A.
0	ISSUED FOR REVIEW	06/03/2019	T.A.
REV.	DESCRIPTION	DATE	BY
SITE: ANVIL WAY & 76 AVE.		SCALE: AS SHOWN	
TELUS CODE: BC2250		DATE: 06/17/2019	
TITLE: TOWER PROFILE AND ANTENNA PLAN		DRAWN BY: T.A.	
		CHECKED BY: P.A.	
		PROJECT: 191-06400-00-120	
		DRAWING No: S2	

ANTENNA LIST – TELUS

ANTENNA NO.	HEIGHT ANT. CENTRE (m)	TECHNOLOGY/ LABEL	ANTENNA MODEL	AZIMUTH (°)	MECHANICAL DOWNTILT (°)	# OF RRUS (TOWER LOADING)	LINE TYPE	STATUS
1	28.8m	T.B.D.	HPA-65R-BUU-H6	0	T.B.D.	3	(1) DC & (1) FIBRE	INITIAL
2	28.8m	T.B.D.	HPA-65R-BUU-H6	0	T.B.D.	3		INITIAL
3	28.8m	T.B.D.	HPA-65R-BUU-H6	120	T.B.D.	3	(1) DC & (1) FIBRE	INITIAL
4	28.8m	T.B.D.	HPA-65R-BUU-H6	120	T.B.D.	3		INITIAL
5	28.8m	T.B.D.	HPA-65R-BUU-H6	240	T.B.D.	3	(1) DC & (1) FIBRE	INITIAL
6	28.8m	T.B.D.	HPA-65R-BUU-H6	240	T.B.D.	3		INITIAL
7	26.4m	T.B.D.	AAU5711a	0	T.B.D.	2	(1) DC & (1) FIBRE	INITIAL
8	26.4m	T.B.D.	AAU5711a	120	T.B.D.	2	(1) DC & (1) FIBRE	INITIAL
9	26.4m	T.B.D.	AAU5711a	240	T.B.D.	2	(1) DC & (1) FIBRE	INITIAL
10	24.4m	T.B.D.	AAU5711a	0	T.B.D.	2	(1) DC & (1) FIBRE	FUTURE
11	24.4m	T.B.D.	AAU5711a	120	T.B.D.	2	(1) DC & (1) FIBRE	FUTURE
12	24.4m	T.B.D.	AAU5711a	240	T.B.D.	2	(1) DC & (1) FIBRE	FUTURE

**NOTES:**

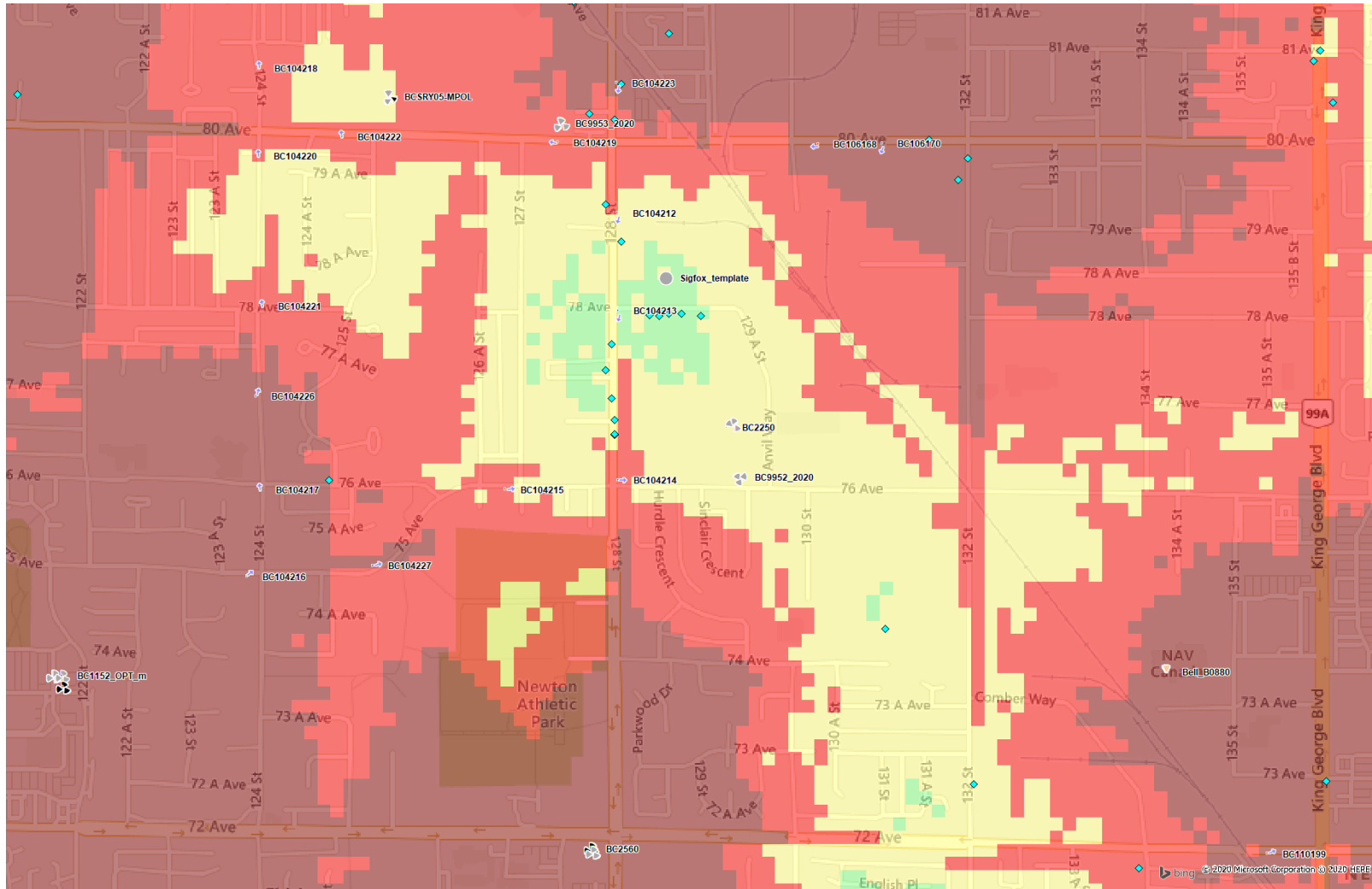
1. THE ELEVATION OF THE ANTENNAS ARE TAKEN WITH RESPECT TO ELEVATION 0.0m (UNDERSIDE OF THE BASEPLATE).
2. THE REFERENCE FOR THE ANTENNAS IS LOCATED AT THE CENTER OF THE ANTENNA.
3. THE ANTENNA LIST IS BASED OFF THE TELUS RADIO SITE QUALIFICATION DATED MAY 15, 2019.

FILE No: 191-06400-00-120.DWG



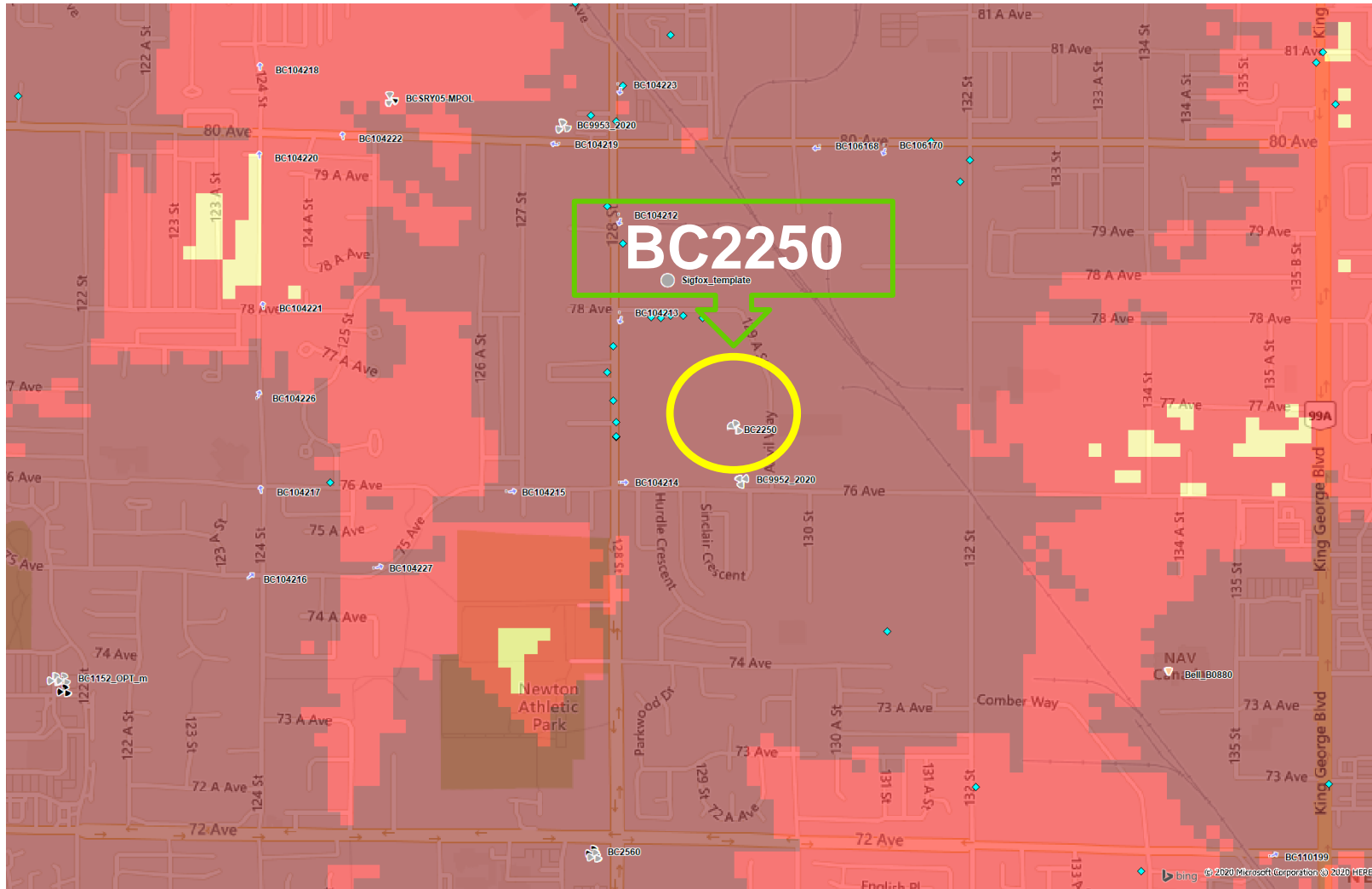
1	REISSUED FOR REVIEW	06/17/2019	T.A.
0	ISSUED FOR REVIEW	06/03/2019	T.A.
REV.	DESCRIPTION	DATE	BY
SITE:	ANVIL WAY & 76 AVE.	SCALE:	AS SHOWN
TELUS CODE:	BC2250	DATE:	06/17/2019
TITLE:	LIST OF ANTENNAS	DRAWN BY:	T.A.
		CHECKED BY:	P.A.
		PROJECT:	191-06400-00-120
		DRAWING No:	S4

# Existing Coverage Prediction



Value	Color
-143.50	Blue
-121.51	Light Blue
-121.50	Pink
-109.51	Light Green
-109.50	Green
-102.51	Yellow
-102.50	Light Yellow
-95.51	Orange
-95.50	Light Orange
-88.51	Red-Orange
-88.50	Red
-81.51	Dark Red
-81.50	Dark Red
0.00	Dark Red

# Future Coverage Prediction



Value	Color
-143.50	Blue
-121.51	Grey
-121.50	Pink
-109.51	Blue
-109.50	Blue
-102.51	Green
-102.50	Green
-95.51	Green
-95.50	Yellow
-88.51	Yellow
-88.50	Red
-81.51	Red
-81.50	Dark Red
0.00	Dark Red

Photo Simulation Before



Photo Simulation After



EXISTING SITES WITHIN A RADIUS OF 500 METRES

