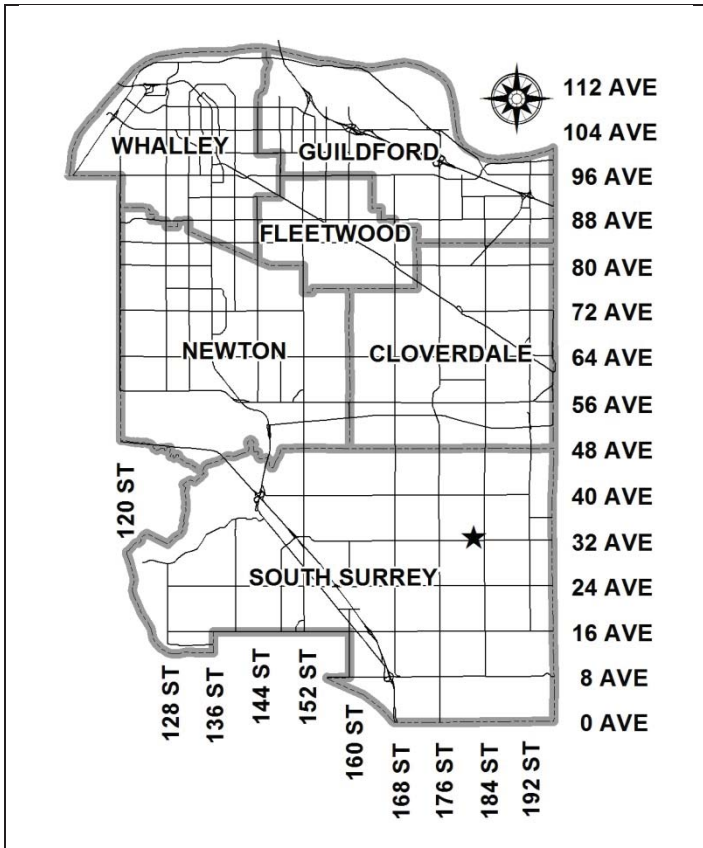


City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7916-0209-00

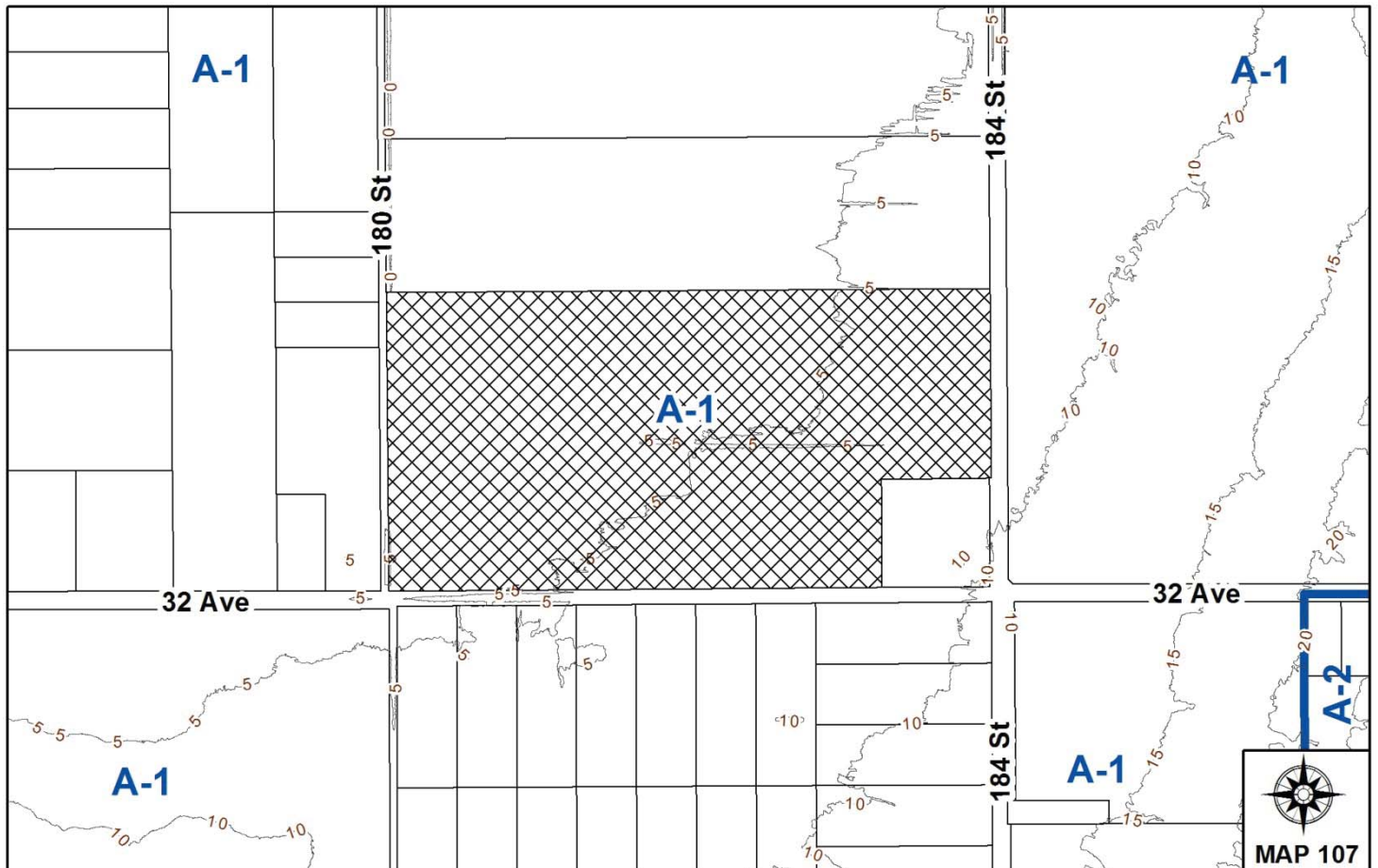
Planning Report Date: November 7, 2016



PROPOSAL:

- **Development Variance Permit**
 to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 45 metres (148 ft.).

LOCATION: 3301 - 184 Street
OWNER: William R. Coote
 David F. Coote
ZONING: A-1
OCP DESIGNATION: Agricultural



RECOMMENDATION SUMMARY

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

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- The applicant has requested a variance of the Zoning By-law to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 45 metres (148 ft.).

RATIONALE OF RECOMMENDATION

- 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 proposal complies with the majority of criteria identified in the City's current policy for telecommunications towers.
- Staff have not received any responses as a result of the public notification to property owners within 270 metres (886 ft.) of the subject site.
- The applicant has provided documentation which indicates that there is a demonstrated coverage gap in the area. The proposed improvement will benefit City residents who use either Telus or Bell mobile services and may attract new customers to the telecommunications providers.

RECOMMENDATION

The Planning & Development Department recommends that Council approve Development Variance Permit No. 7916-0209-00 (Appendix IV), 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 45 metres (148 ft.), to proceed to Public Notification.

REFERRALS

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

SITE CHARACTERISTICS

Existing Land Use: Agricultural

Adjacent Area:

Direction	Existing Use	OCP Designation	Existing Zone
North:	Agricultural	Agricultural	A-1
East (Across 184 Street):	Agricultural (BC Forest Service Tree Seed Centre)	Agricultural	A-1
South (Across 32 Avenue:	Agricultural	Agricultural	A-1
West(Across 180 Street):	Agricultural	Agricultural	A-1

DEVELOPMENT CONSIDERATIONSSite Context and Proposal

- The 29 hectare (71 acre) subject site is located between 180 Street and 184 Street, north of 32 Avenue. The property is designated Agricultural in the Official Community Plan (OCP), zoned "General Agriculture Zone (A-1)", and is located within the Agricultural Land Reserve (ALR).
- Cypress Land Services on behalf of Telus is proposing to erect a 45 metre (148 ft.) high freestanding monopole telecommunications tower and ancillary equipment compound on the subject site.

- The proposal will provide improved telecommunication coverage and capacity in an approximately 16 square kilometer (6 square mile) area located between Highway 15 (176 Street) to the west, 192 Street to the east, 48 Avenue to the north and 24 Avenue to the south. This area includes the western portion of Campbell Heights and the northern portion of the future Redwood Heights Neighbourhood Concept Plan Area (Grandview Heights Neighbourhood 4).
- The proposed monopole and ancillary electrical equipment will be located behind the existing farm buildings on the subject site, set back approximately 150 metres (492 ft.) from 184 Street and 250 metres (820 ft.) from 32 Avenue, and will be partially screened from view along 184 Street by the existing farm buildings and by mature trees and bushes around the perimeter of the site along 184 Street, 32 Avenue and 180 Street.
- The applicant is proposing a Development Variance Permit (DVP) to increase the maximum height of a free-standing telecommunications tower from 12 metres (40 ft.) to 45 metres (148 ft.).

Telecommunications Policy

- 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 in 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 also supports the City of Surrey's vision for building a strong economy.
- The subject application generally complies with the current Telecommunications Tower Policy No. O-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 45-metre (148 ft.) height in order to ensure an expanded coverage in the approximately 16 square kilometer (6 square mile) area surrounding the proposed location.

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.

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

The proposed site is currently used for farming and is located within the Agricultural Land Reserve (ALR). The Agricultural Land Reserve Use, Subdivision and Procedure Regulation, B.C. Reg. 171/2002 permits telecommunications equipment, buildings and installations as long as the area occupied by the equipment, buildings and installations does not exceed 100 square metres for each parcel. The application proposes a 100 square metre equipment enclosure, which complies with the Regulation.

The telecommunications tower is proposed to be located close to the existing farm buildings on the subject property and should have little impact on the ability to farm this property.

The proposed site is a non-residential location surrounded by agricultural land, with industrial business park uses located further to the east in Campbell Heights. The closest existing or future (Redwood Heights NCP Area) residential development is more than 1 kilometer (0.6 miles) from the location of the proposed telecommunications tower.

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

The proposed telecommunications tower and ancillary equipment will not be located near any prominent natural, cultural, environmentally sensitive or historically significant features.

There is a red coded (Class A) creek located on the property; however, the installation is proposed to be located more than 50 metres (165 ft.) from the top of bank and is therefore not subject to a Development Permit for Sensitive Ecosystems.

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

The tower is proposed to be set back approximately 150 metres (492 ft.) from 184 Street and 250 metres (820 ft.) from 32 Avenue, which exceeds the height of the proposed tower.

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

As this is active farmland, most of the site has been cleared of trees to allow for farm use. There are, however, existing mature trees around the perimeter of the property along 184 Street, 32 Avenue and 180 Street, which help to screen the proposed installation from view.

- 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 clear natural obstacles such as topography, existing trees and adjacent buildings.

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

There are no BC Hydro transmission towers with comparable height to the proposed tower within a 500-metre (1,640 ft.) radius of the subject site.

Most other buildings within the proposed coverage area, which are primarily farm buildings and single family dwellings, have maximum building heights ranging from 9 metres (30 ft.) to 12 metres (40 ft.), which is not sufficient to reach the target 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".

Co-location was explored by the applicant; however, the closest existing tower not already occupied by Telus is a Rogers Communications installation on a BC Hydro transmission pole located along Highway 15 just south of the Nicomekl River. This site is over 2.5 kilometers (1.6 miles) from the subject site and BC Hydro does not currently allow multiple carriers to co-locate on their infrastructure (i.e. only one carrier per tower). The next closest telecommunications towers are already occupied by Telus. For these reasons, co-location on an existing telecommunications tower has been disqualified as an option.

Telus has reached out to Wind Mobile and Rogers Communications to offer co-location once the tower is constructed. Rogers declined the offer to co-locate as it would not benefit their current needs; however, Wind Mobile has confirmed that they will co-locate at this site. Telus also has an existing co-sharing agreement with Bell Mobility in which Bell services are provided using Telus infrastructure, which is in itself a form of co-location. The proposal will benefit existing and future Bell customers within the proposed service area.

- 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 antennas, should other carriers wish to co-locate on the proposed tower in the future. Co-location opportunities are available at or below a height of 30 metre (98 ft.) on the proposed tower. WIND Mobile has confirmed that they will co-locate on this 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 monopole tower measures 1.5 metre (5 ft.) in diameter at the base and tapers slightly towards the top. The proposed equipment compound is to be located at the base of the monopole, behind the existing farm buildings on the subject site, approximately 150 metres (492 ft.) from 184 Street and 250 metres (820 ft.) from 32 Avenue. The tower will be partially screened from public view by the existing buildings on the property and by mature trees along the perimeter of the site.

- Where a tower is being constructed to accommodate a single user, a monopole design is required.

The proposed tower is a monopole design with co-location opportunities for other carriers.

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

The monopole and ancillary equipment will be contained within a chain link equipment compound that is proposed to be situated behind the existing farm buildings on the subject site. The applicant is not proposing any additional landscaping around the base of the tower or compound, as the tower will be screened from public view by existing buildings.

PUBLIC CONSULTATION

In accordance with the City policy, the applicant sent out 45 information packages on August 31, 2016 to property owners within a notification area of 270 metres (886 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 45 metres (148 ft.).

Applicant's Reasons:

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

- The proposed 45 metre (148 ft.) height of the monopole is required to clear natural obstacles in the area including topography, existing trees and adjacent buildings, and to provide enhanced coverage to a large target service area of approximately 16 square kilometers (6 square miles).
- Telus has invited other carriers to co-locate on the proposed telecommunications tower once construction is complete. Wind Mobile has confirmed that they will co-locate on this tower.

Staff Comments:

- The proposal complies with the majority of criteria identified in the City's Policy for Telecommunications Towers.
- The proposed location is within the Agricultural Land Reserve. The proposal complies with the Agricultural Land Reserve Use, Subdivision and Procedure Regulation, which permits telecommunications equipment, buildings and installations as long as the area occupied by the equipment, buildings and installations does not exceed 100 square metres.
- The proposed monopole and equipment compound will be satisfactorily screened from public view.
- No concerns have been expressed from area residents in response to the public notification.
- Staff support this variance to proceed to public notification.

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.	Coverage Maps
Appendix IV.	Development Variance Permit No. 7916-0209-00

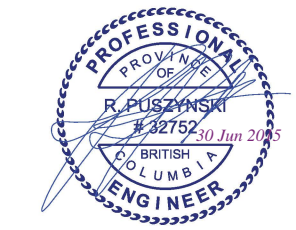
Original signed by Ron Hintsche

Jean Lamontagne
General Manager
Planning and Development

EM/da

NOTES:
 SITE PLAN OBTAINED FROM GOOGLE MAPS.
 THIS DRAWING DOES NOT REPRESENT A
 SURVEY.

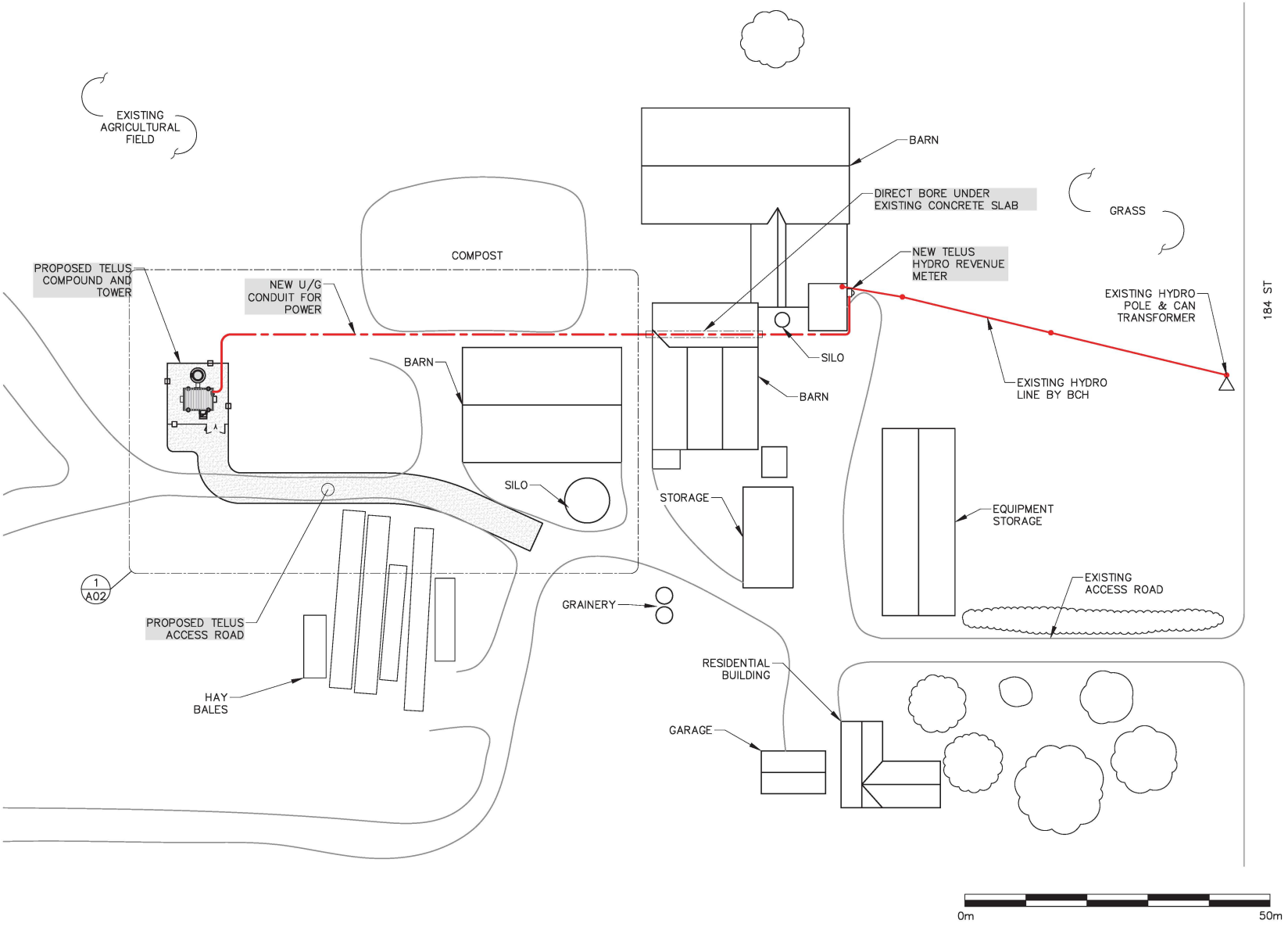
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 SUITE 210
 VANCOUVER, BC V6C 1A5
 TEL (778)800-1233
 TORONTO - CALGARY - VANCOUVER

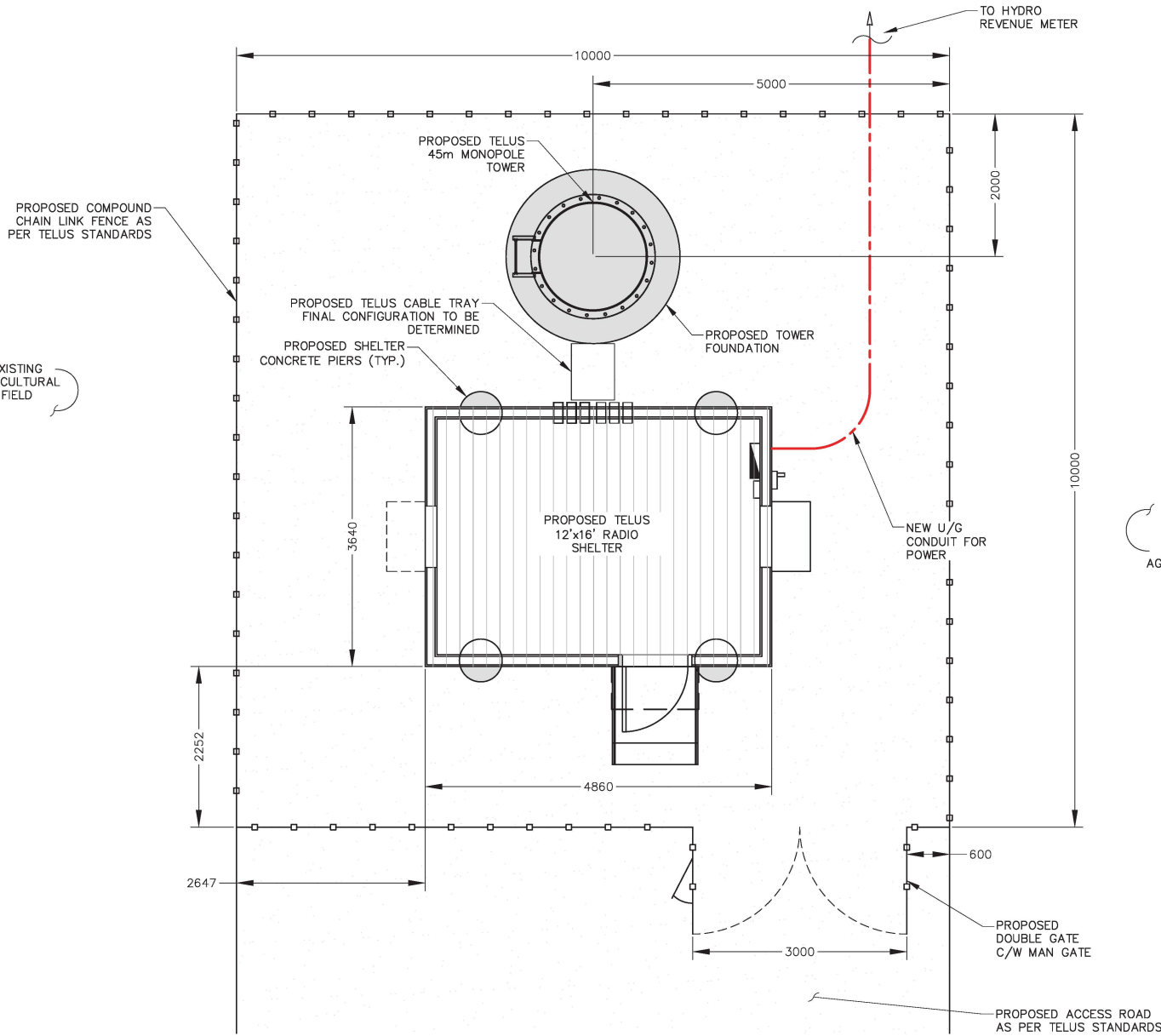
LOCATION:
 3301 184TH ST., SURREY, BC
 TITLE:
 SITE PLAN
 PROJECT NAME: 184 ST / 32 AVE PROJECT NO: BC1564 DWG. NO: A01



1 SITE LAYOUT

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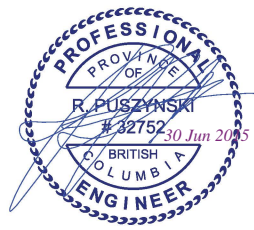
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- NOTES:
1. COMPOUND LAYOUT OBTAINED FROM SITE VISIT BY ROEHAMPTON COMMUNICATIONS LTD. DATED 10 DECEMBER 2014.
 2. COMPOUND LAYOUT SUBJECT TO CHANGE BASED ON FINAL TOWER DESIGN.

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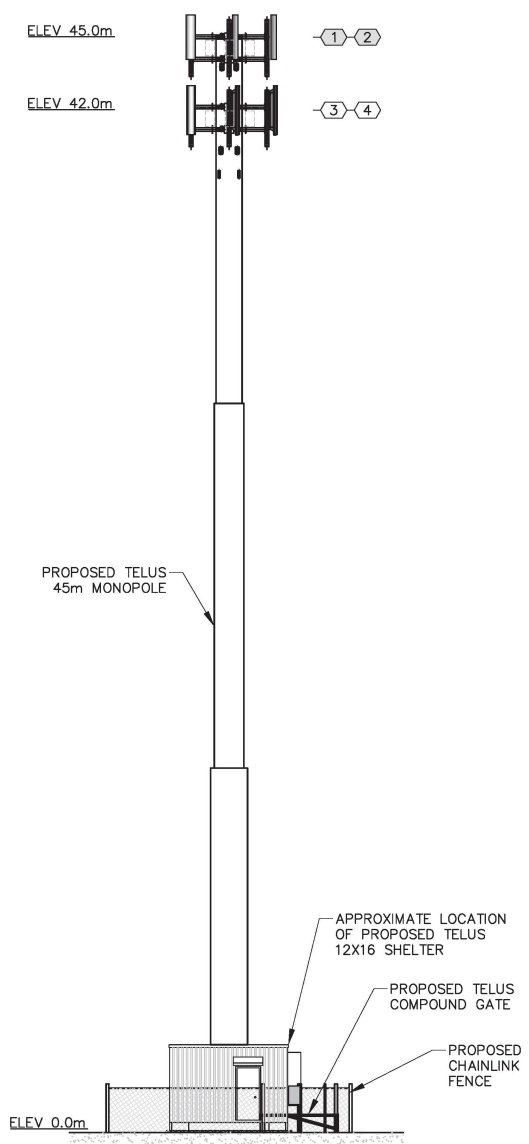
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 3301 184TH ST., SURREY, BC

TITLE:
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PROJECT NAME: 184 ST / 32 AVE PROJECT NO: BC1564 DWG. NO: A03

1 COMPOUND LAYOUT

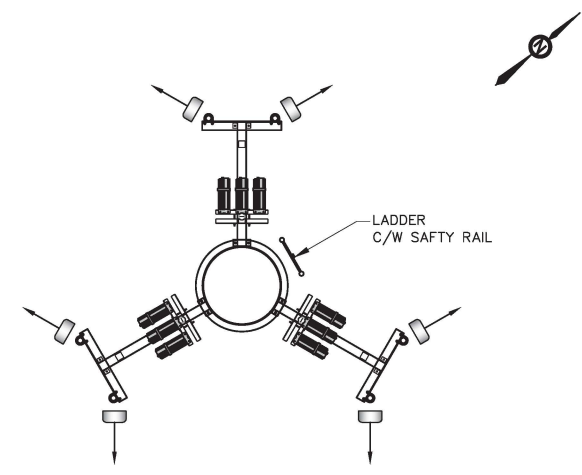
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1 SOUTH ELEVATION & TOWER PROFILE

RADIO ANTENNA SCHEDULE								
#	ELEV. (m)	ANTENNA/EQUIPMENT			Tx LINE		OWNER	STATUS
		QTY.	MODEL	AZIMUTH	QTY	MODEL		
1	45.0	6	HPA-65R-BUU-H6	10°, 130°, 250°	-	JUMPER	TELUS	INITIAL
2	45.0	15	RRU'S	-	3/3	DC/FIBER	TELUS	INITIAL
3	42.0	3	AAU3911	10°, 130°, 250°	-	JUMPER	TELUS	FUTURE
4	42.0	3	RRU'S	-	1/1	DC/FIBER	TELUS	FUTURE

DC Ø23.4mm
FIBER Ø8.5mm



2 ANTENNA LAYOUT

- NOTES:
1. FINAL TOWER DESIGN MAY CHANGE BASED ON FURTHER INVESTIGATION.
 2. TELUS ANTENNA LOADING FROM SLS REFERENCE JOB#BC1564, DATED 23 JAN 2015

CLIENT:

CARRIER:



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744 WEST HASTINGS ST.
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VANCOUVER, BC V6C 1A5
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TORONTO - CALGARY - VANCOUVER

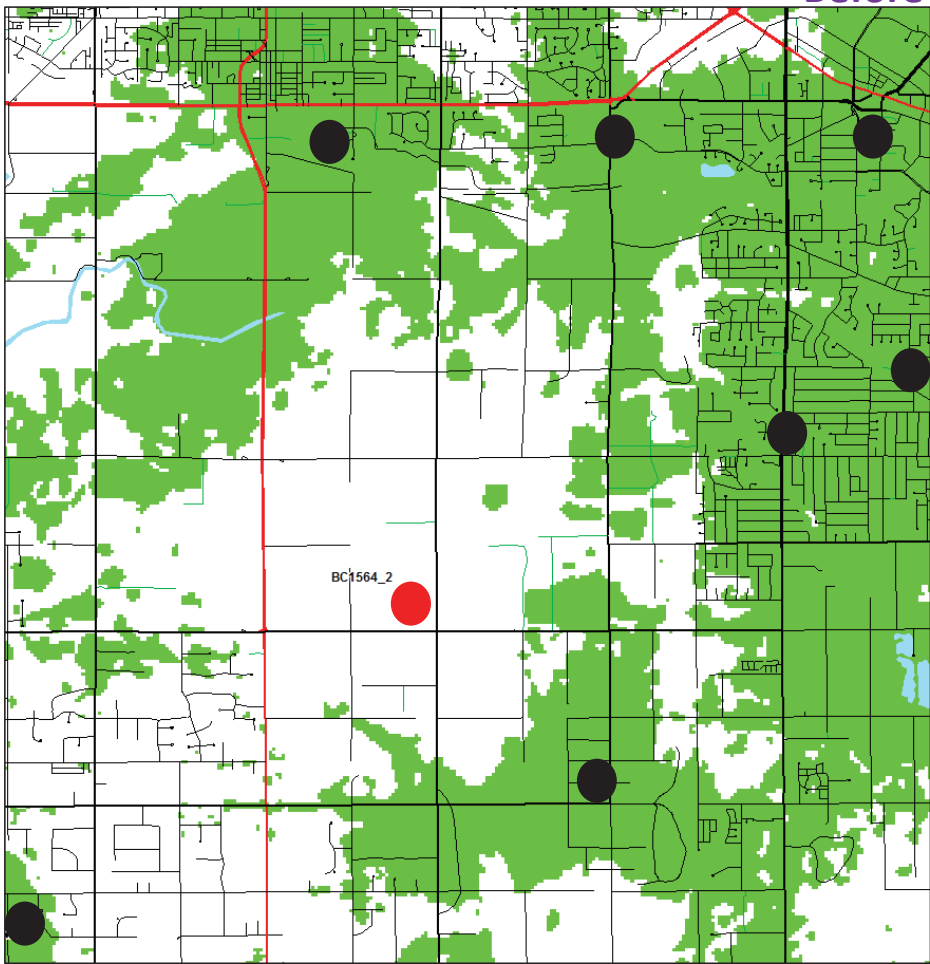
LOCATION:
3301 184TH ST., SURREY, BC

TITLE:
SOUTH ELEVATION & TOWER PROFILE

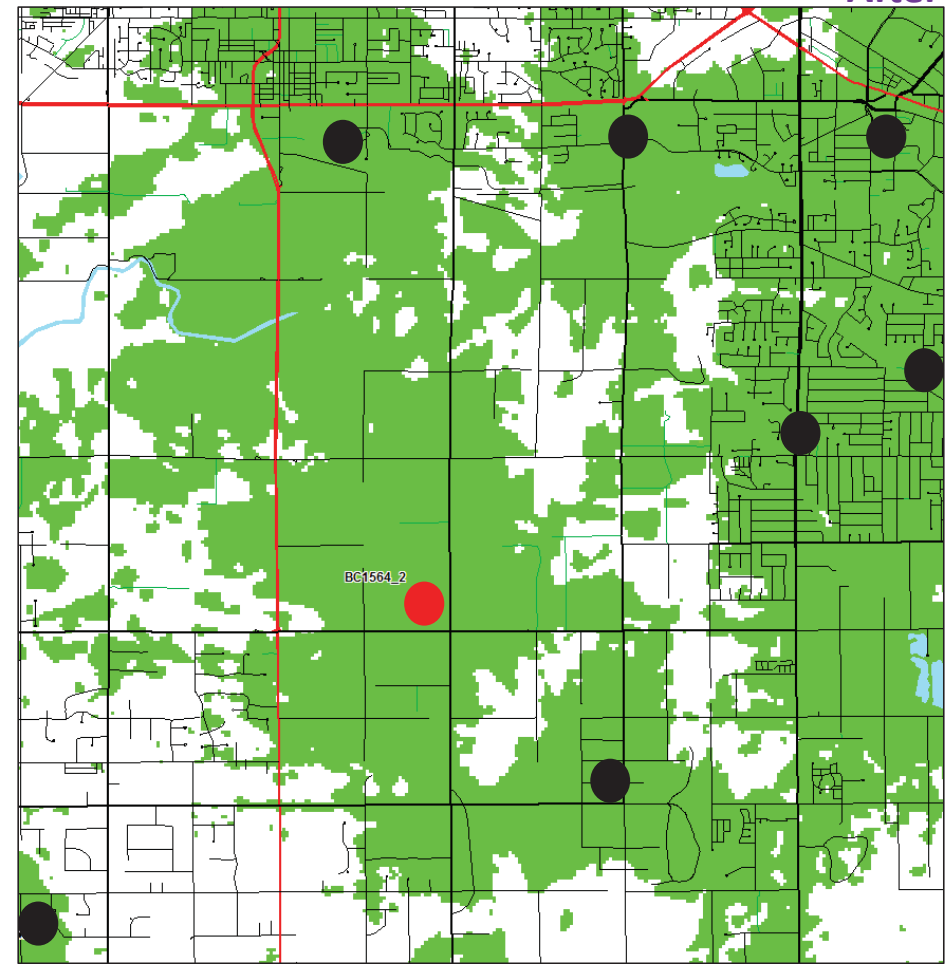
PROJECT NAME: 184 ST / 32 AVE PROJECT NO: BC1564 DWG. NO: A04



Before



After



Confidential: Information contained within this map is restricted and meant for internal use only.
Disclaimer: This is a prediction map and must not be considered as exact representation of the actual signal strength. The actual coverage map can only be provided based on the signal measurement after the site is built and become onair.

● Proposed Site ● On-Air Site

■ W850 Coverage

CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7916-0209-00

Issued To: WILLIAM R. COOTE
DAVID F. COOTE

(the "Owner")

Address of Owner: 3301 - 184 Street
Surrey, BC V3Z 1B8

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: 013-258-842
South Half of the South East Quarter Section 29 Township 7 Except: Parcel "A"
(Explanatory Plan 15682) and Road, New Westminster District

3301 - 184 Street

(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 45 metres (148 ft.).
4. 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.
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

NOTES:

SITE PLAN OBTAINED FROM GOOGLE MAPS. THIS DRAWING DOES NOT REPRESENT A SURVEY.

CLIENT:

CARRIER:



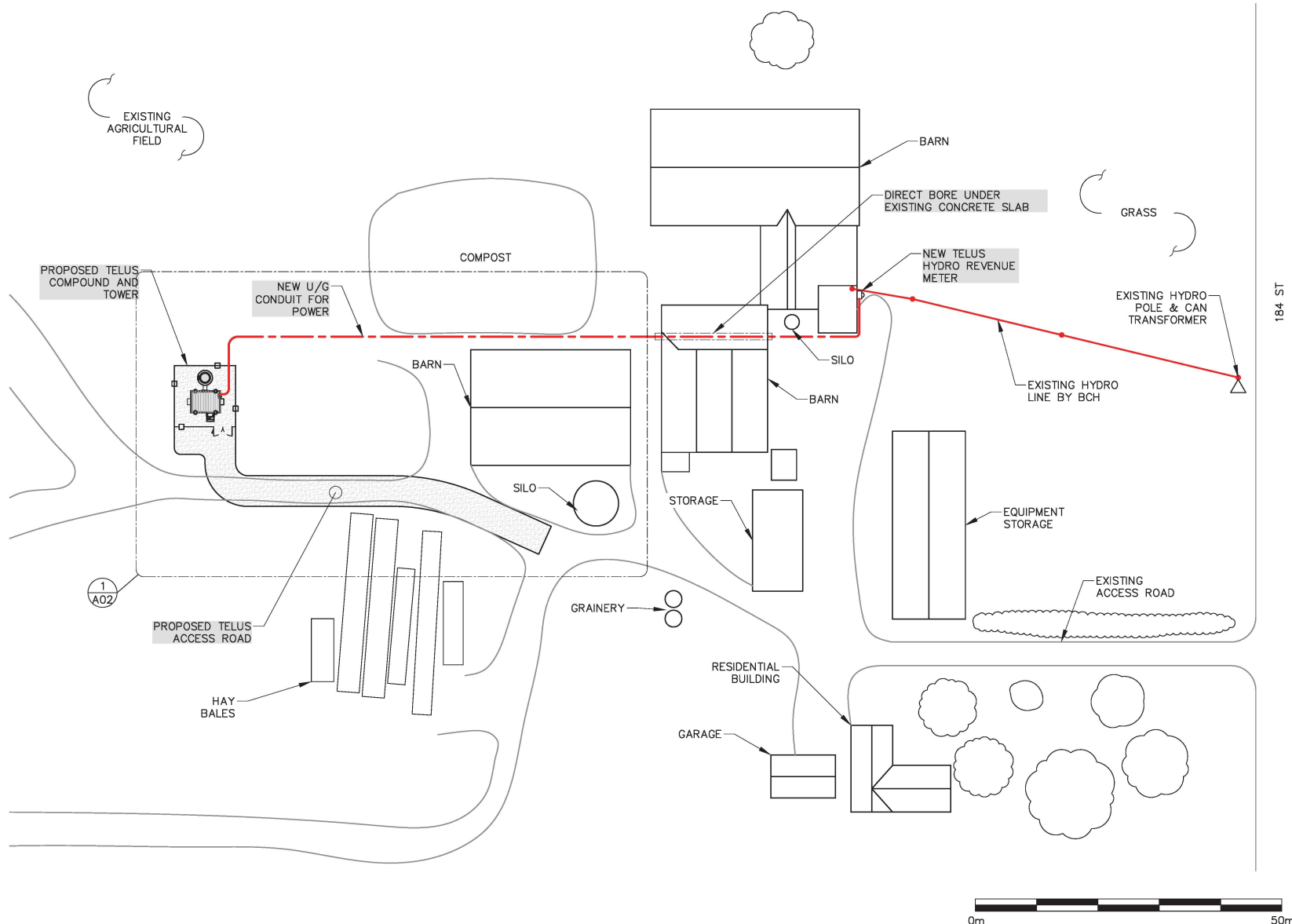
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 TORONTO - CALGARY - VANCOUVER

LOCATION:
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TITLE:
 SITE PLAN

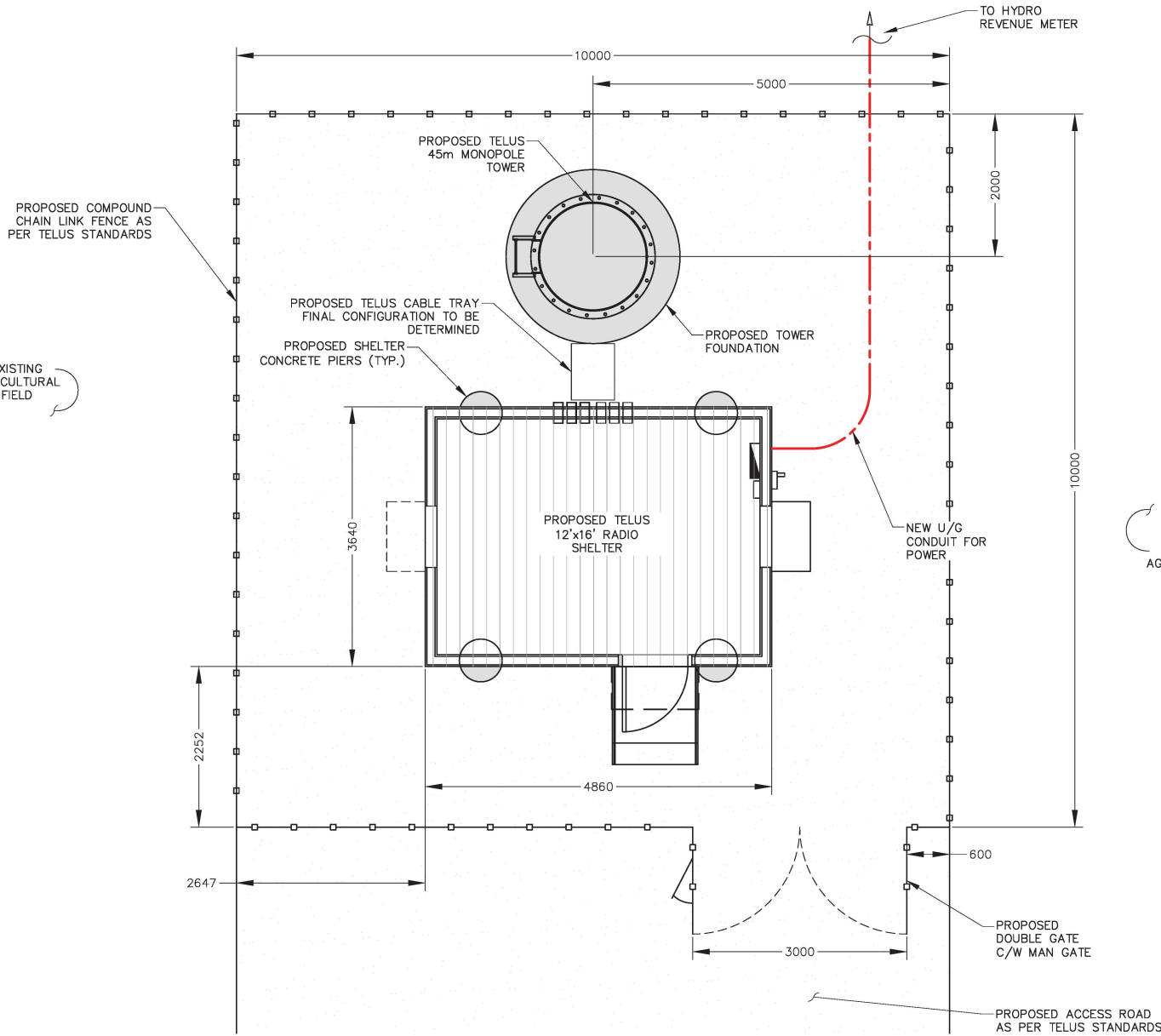
PROJECT NAME: 184 ST / 32 AVE	PROJECT NO: BC1564	DWG. NO: A01
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1 SITE LAYOUT

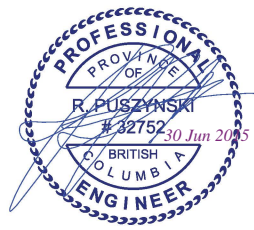
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 2. COMPOUND LAYOUT SUBJECT TO CHANGE BASED ON FINAL TOWER DESIGN.

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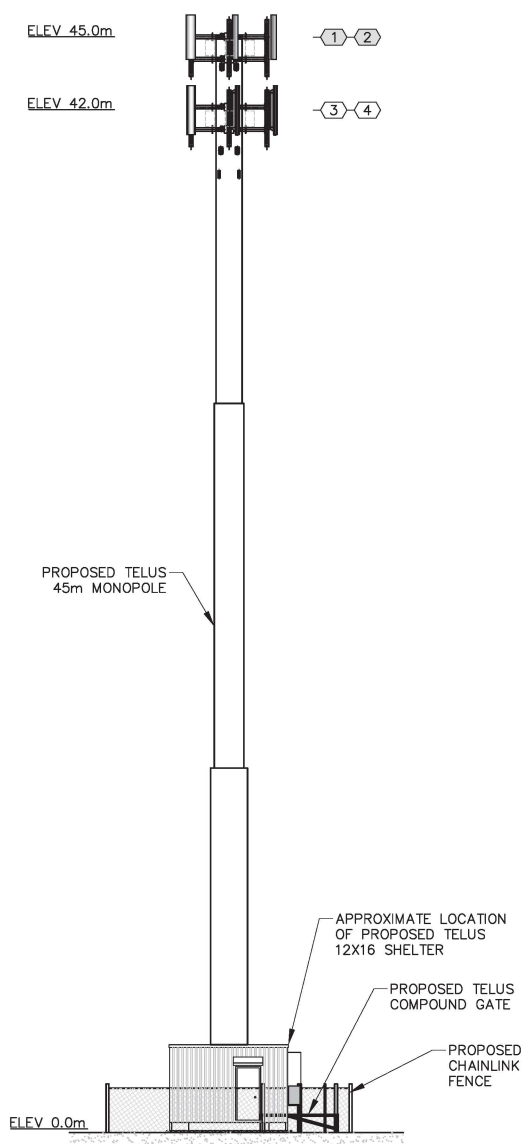
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1 COMPOUND LAYOUT

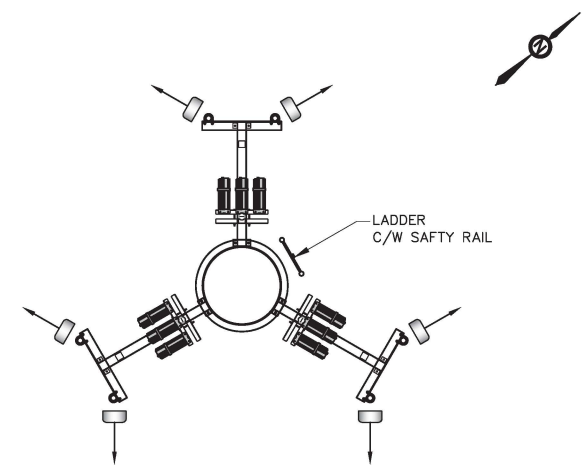
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		QTY.	MODEL	AZIMUTH	QTY.	MODEL		
1	45.0	6	HPA-65R-BUU-H6	10°, 130°, 250°	-	JUMPER	TELUS	INITIAL
2	45.0	15	RRU'S	-	3/3	DC/FIBER	TELUS	INITIAL
3	42.0	3	AAU3911	10°, 130°, 250°	-	JUMPER	TELUS	FUTURE
4	42.0	3	RRU'S	-	1/1	DC/FIBER	TELUS	FUTURE

DC Ø23.4mm
FIBER Ø8.5mm



2 ANTENNA LAYOUT

- NOTES:
1. FINAL TOWER DESIGN MAY CHANGE BASED ON FURTHER INVESTIGATION.
 2. TELUS ANTENNA LOADING FROM SLS REFERENCE JOB#BC1564, DATED 23 JAN 2015

CLIENT:

CARRIER:



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TEL (778)300-1233
TORONTO - CALGARY - VANCOUVER

LOCATION:
3301 184TH ST., SURREY, BC

TITLE:
SOUTH ELEVATION & TOWER PROFILE

PROJECT NAME: 184 ST / 32 AVE PROJECT NO: BC1564 DWG. NO: A04