



Corporate *NO: R136*

Report *COUNCIL DATE: June 18, 2001*

REGULAR COUNCIL

TO: Mayor & Council **DATE: June 14, 2001**

FROM: General Manager, Planning & Development **FILE: 1000-001**

SUBJECT: Proposed Wireless Telecommunications Master Plan

RECOMMENDATION

The Planning & Development recommends that Council:

1. Receive this report as information;
2. Approve the proposed "Policy for Telecommunication Towers" as contained in Appendix VI, as the basis for reviewing future telecommunication tower proposals; and
3. Accept the Future Towers Site Map (Appendix III) to supplement the Policy for Telecommunication Towers as a reference for review and approval of future telecommunication towers.

BACKGROUND

Council on April 7, 1999 received a report from the Planning & Development Department advising that the four major wireless communications providers (Rogers AT&T Wireless, Telus Mobility, ClearNET Communications and Microcell Connexions) had agreed to prepare a joint Master Plan for the next 3 to 5 year period identifying additional sites required to improve coverage and accommodate user demand in Surrey (Appendix I). In addition, the carriers agreed to work with the Planning & Development Department to prepare policies addressing the location and design of towers, approval procedures, and public consultation.

More recently, Council on November 6, 2000 received a delegation from Joseph King, Zoning Manager, Rogers Wireless, representing the four carriers, to present the contents and recommendations of a proposed Wireless Telecommunications Master Plan for the City of Surrey (Appendix II). This proposed Master Plan includes a map illustrating potential new tower sites for the period 2000 - 2004¹. This document also includes recommended policies on site selection, co-location, and design criteria as well as proposed Zoning By-law amendments and approval procedures. The carriers propose that the recommendations of this document form the foundation on which the

carriers and the City will address the needs of the telecommunications industry while also ensuring that a range of community objectives are met.

Council referred the proposed Plan to staff for a report.

PURPOSE

The purpose of this report is to evaluate the recommendations of the Wireless Telecommunications Master Plan as presented to Council on November 6, 2000 and to propose a wireless communications policy for the City of Surrey that accommodates the desire of local residents and businesses to have access to reliable wireless communication services while respecting community concerns. Surrey's current regulations and procedures for telecommunication towers are evaluated within the context of the proposed policy.

DISCUSSION

Surrey's Current Regulations and Procedures

Surrey's Zoning By-law limits the height of free-standing telecommunication towers in all Zones to 12 metres (40 ft.) and towers on top of buildings (roof-top installations) to 3 metres (10 ft.) above the maximum building height permitted in the Zone in which the tower is to be located. A development variance permit application is required if taller structures are required. Council may refuse the issuance of the development variance permit, or in conjunction with permit approval, may impose specific conditions such as tower design, colour, and landscape screening to reduce the visual impact of the tower.

Summary of Carriers' Concerns and Recommendations

The wireless providers have expressed concerns that the current height for free-standing telecommunication towers allowed under the Zoning By-law is too restrictive to provide adequate coverage and that the development variance permit application process for a taller structure is time consuming and provides little certainty relative to the outcome of the process. To achieve a more predictable and streamlined process, the carriers recommend the following enhancements and changes to the current system for Council's consideration:

1 Future Tower Site Map

- Appendix V illustrates the existing wireless sites of the four major carriers as of February 2000 (ClearNET, Microcell, Rogers, Telus). Currently, the four wireless carriers operate from 54 sites in Surrey with 21 (39%) located on Hydro towers; 16 (30%) free-standing telecommunications towers; 15 (28%) rooftop installations; and 2 (4%) located on high mast lighting. Of these sites, there are 10 co-location installations representing 26 individual carrier company sites.
- Since the preparation of the existing wireless sites map, ClearNET has been acquired by Telus, while Bell Mobility, a new player in the British Columbia and Alberta wireless markets, is in the process of expanding its wireless network into Western Canada and the City of Surrey. These four carriers (Telus, Microcell, Rogers and Bell Mobility) have collectively prepared a Future Tower Site Map illustrating projected tower sites for each of the carriers for the period 2000 - 2004 (Appendix III). The carriers have indicated that the new tower sites will only be proposed if no suitable alternative structure can be identified. Based upon network analysis, each of the carriers has indicated the approximate geographical areas of Surrey where they anticipate the need for additional tower sites in the specified period. Opportunities for co-location exist where the identified sites

are in close proximity to another.

- 66 new tower sites are proposed by the four carriers for the period 2000 - 2004. Of the 66 new tower sites, 56 or 85% have areas of significant overlap which means that there is reasonable potential for a single tower to accommodate the needs of more than one user. These 56 sites are distributed across 19 locations. Essentially, only 10 or 15% of the proposed sites would be for a single carrier. If co-location is fully realized, the total number of new towers would be 29.
- The carriers propose that the Future Tower Site Map be used by Surrey to evaluate future tower applications. Applications for towers outside of those illustrated on the subject map will require explanation and further justification from the carrier.

Staff Comments

The Future Tower Site Map indicates in a very general manner, the approximate geographical area where the carriers anticipate the need for additional telecommunication towers and as such, is useful at the first level of analysis for evaluating applications for taller structures which may exceed the maximum height for towers specified in the Zoning By-law. It is therefore recommended that the proposed Future Tower Site Map be endorsed as a general guide for the location of future telecommunication towers for the next five years. However, decisions on the specific tower locations be made on the basis of more detailed evaluation in accordance with the policies recommended in this report.

2 Height of Freestanding Towers and Streamlining the Approval Process

- The carriers propose an amendment to the Zoning By-law to allow telecommunication towers with a height of up to 30.5 metres (100 ft.) in non-residential zones provided that the tower is located a minimum distance of 50 metres (165 ft.) from a residential zone. A proposed tower meeting these criteria would proceed with only the requirement of a building permit. This would allow for streamlining of the approval process for towers in non-residential areas. A proposed tower not meeting these height and locational criteria will continue to require a Development Variance Permit application.
- Under the carriers' proposal, telecommunication towers in residential areas or within 50 metres (165 ft.) of a residential area exceeding 12.0 metres (40 ft.) in height would continue to require a Development Variance Permit.

Staff Comments

The Planning & Development Department has concerns over the carriers' proposal for tower heights of up to 30.5 metres (100 ft.) in non-residential zones provided that the tower is located a minimum of 50 metres (165 ft.) from a residential zone. The proposed 30.5 metre height is significantly greater than the current allowable tower height of 12 metres (40 ft.) as well as the maximum height of a building or structure in an industrial zone, i.e. 18 metres (60 ft.). There would be no opportunity for Council to receive public input and Council would have no opportunity to review and decide the siting/location, design and landscaping of towers of up to 100 feet in non-residential sites.

Accordingly, Planning & Development recommends that the maximum height of freestanding telecommunication towers continue to be limited to 12 metres (40 ft.) in height in all Zones and that the Zoning By-law not be amended, as proposed by the carriers. A development variance permit application will be

required if taller structures are proposed.

3 Tower Height Criteria Matrix

- The carriers' proposed Tower Height Criteria Matrix identifies a number of location, design, and landscaping criteria which are intended to influence the carriers' decision to locate and design individual tower sites, and is to be used by staff in evaluating development variance permit applications for over-height telecommunication tower (Appendix IV). This Matrix essentially encourages towers to exhibit one or more of the following characteristics by granting height bonuses without the need for a development variance permit:

located in non-residential areas or more specifically, to be located in industrial areas.

co-location sites.

placed on a site in proximity to mature trees.

provide additional ground level landscaping.

use a monopole design

placed on a site at least 50 metres (165 ft.) from a residential zone.

- The carriers propose that Planning & Development staff review development variance permit applications for over height towers in relation to the Future Tower Site Map and the Tower Height Criteria Matrix.

- Each of the criteria in the Tower Height Criteria Matrix is quantified by the assignment of a "bonus height". For example, a tower located in an Industrial Zone is proposed to have a bonus height of 10 metres (33 ft.), i.e. 10 metres over and above the carriers' proposal for tower heights of up to 30.5 metres (100 ft.) in a non-residential area. Under the carriers' proposal, a tower in a Residential Zone utilizing a monopole design with additional site landscaping and co-location with two carriers could have a bonus height of 15 metres (50 ft.) over and above the maximum 12 metre (40 ft.) tower height currently specified in the Zoning By-law, without the need for a development variance permit.

Staff Comments

While we agree that it is important to have a set of criteria to evaluate tower applications, the Planning & Development Department does not support assigning bonus heights to the various criteria without due public process. As proposed by the carriers, a very tall structure could be constructed and could still be close to a residential area with little or no input from neighbouring residents.

To gather public input on development variance permit applications for over height towers in residential areas or non-residential areas close to residential areas, the Planning & Development Department **recommends that property owners within six times the height of the proposed tower measured from the base of the tower be notified of the proposed application.** For purposes of this policy and to maintain consistency with the proposed notification area for over height towers in residential areas, a non-residential area close to a residential area is defined as any residential development within a radius of six times the height of a proposed tower.

The proposed notification area is based on a City of Edmonton policy on consultation for telecommunication towers of more than 15 metres in height and where existing low density housing is located within six times the height of the proposed tower height. Using 30 metres (100 ft.) as a typical tower height, the proposed policy of notifying property owners within six times the height of the proposed tower measured from the base of the tower would require a notification distance of 180 metres or 600 feet. This is twice the notification area for the pre-notification process for rezoning applications but it is intended to notify all property owners whose views may be impacted by the proposed tower.

Planning & Development will consult with the applicant on the responses and will discuss the need for an open house or public information meeting to describe the proposal and explain how concerns will be addressed.

The proposed notification process is similar to the pre-notification letter which is sent out for rezoning applications. This pre-notification will enable staff and the applicant to gauge public acceptance of a proposal early in the approval process and allow the development of solutions to address any concerns.

Policies on Site Selection, Co-Location and Design Criteria

- In addition to the above, the carriers have proposed a number of policies on site selection, co-location, and design criteria (Appendix II). In summary, the carriers propose as follows:

Site Selection

- Preference will be to locate on existing structures.
- Where technically possible, preference will be to locate in Industrial, Commercial and Agricultural zones or Comprehensive Development zones that are primarily industrial and/or commercial in character.

Co-location

- Carriers shall endeavour to co-locate whenever possible, to reduce the total number of new towers.
- Carriers shall inform other carrier companies of their intentions to locate a new tower site in a particular community/area so as to determine whether there are opportunities to locate on an existing tower or to explore and evaluate the possibility of co-locating on a new tower.

Design Criteria

- Carriers should take into consideration the tower design that is best suited for the site from a visual perspective.
- Carriers should take into consideration the exterior design of the equipment shelters including materials, colour and textures so as to minimize the visual impact on surrounding properties.
- Carriers may, where appropriate, provide landscaping and fencing on tower sites so as to minimize their visual impact.

Staff Comments

These proposed policies provide a strong foundation for a wireless communications policy for Surrey and are generally supported by Planning & Development. However, the carriers' proposed policies include some technical information not relevant for public policy purposes and do not contain adequate guidance on public consultation.

Proposed City of Surrey Policy for Telecommunication Towers

Based upon the Wireless Telecommunications Master Plan and policies presented to Council by the four major wireless carriers, a proposed City of Surrey policy for telecommunication towers is presented in Appendix VI. The proposed policy is intended to provide a framework for the development and approval of an efficient telecommunication network for the City of Surrey while also ensuring that the range of community objectives are met. The proposed City Policy is organized into six main sections: Location/Siting, Co-Location, Tower Design and Landscaping, Height of Towers, Tower Height Evaluation Criteria, and Consultation and Communication.

In addition to providing general guidance on the location and design of new telecommunication towers, the proposed policy encourages the location of new towers in non-residential areas by creating a less onerous process for towers proposed in industrial and commercial areas. Alternatively, in areas of the community where the location of towers may have a greater impact, additional opportunities for public input are provided. The proposed policy also includes a guideline on the setback of new towers from the edge of an existing or future road. It is recommended that Council adopt the proposed City policy for telecommunication towers as described in Appendix VI.

CONCLUSION

This report provides an evaluation of the recommendations of the Wireless Telecommunications Master Plan as presented to Council on November 6, 2000 by the four major carriers currently providing wireless communication services in Surrey. The main recommendations of this report are that the maximum height of freestanding telecommunication towers continue to be limited to 12 metres (40 ft.) in all Zones and that development variance permit applications be required if taller structures are proposed. In addition, it is recommended that a pre-notification

process similar to the pre-notification letter which is sent out for rezoning applications be adopted for development variance permit applications for over height telecommunication towers in residential areas or in non-residential areas close to residential areas. This pre-notification process will allow staff and the applicant to gauge public acceptance of a proposal early in the application process and allow the development of solutions to address any concerns.

The above-noted recommendations together with policies on location/siting; co-location; tower design and landscaping; tower height; tower height evaluation criteria; and communication and consultation form the basis of a proposed telecommunications policy for the City of Surrey. The proposed policy, when applied in conjunction with the Future Tower Site Map, will provide guidance to wireless communication carriers relative to locating tower sites and will assist staff in evaluating development variance permit applications for over height towers.

Murray D. Dinwoodie
General Manager
Planning & Development Department

GF/kms/saw

Appendices

- I. Corporate Report No. R1836 – Development of a Wireless Communications Plan for the City of Surrey, April 19, 1999
- II. Carriers' Proposed Wireless Telecommunications Master Plan
- III. Future Tower Site Map, 2000 – 2004
- IV. Tower Height Criteria Matrix
- V. Existing Wireless Sites in Surrey
- VI. Proposed Surrey Policy for Telecommunication Towers

v:\wp-docs\planning\01data\jan-march\03061449.gf.doc