

TO: CITY MANAGER 1996 MAY 08

FROM: DIRECTOR PLANNING AND BUILDING

SUBJECT: ZONING BYLAW TEXT AMENDMENT
PROCEDURES AND REQUIREMENTS FOR ANTENNAE

PURPOSE: To recommend amendments to the Zoning Bylaw to provide physical standards to determine which antenna proposals must be the subject of a rezoning application.

RECOMMENDATIONS:

1. **THAT** the City Solicitor be authorized to prepare a bylaw amending the Burnaby Zoning Bylaw as described in Section 2.5 of this report.

R E P O R T

1.0 BACKGROUND:

- 1.1 Currently, the Burnaby Zoning Bylaw lists antennae as a permitted principal use in the P2 Administration and Assembly District (Section 502.1(14)). Therefore, if a proposal is received to develop antennae on a property where the antennae user/owner does not have a separate permitted use on the property, the property must be rezoned to the P2 District to permit the antennae as a principal use.

Antennae developments which relate to a permitted principal use on a site, however, are considered to be a permitted accessory use. Accessory buildings and uses are listed in every zoning district in the Burnaby Zoning Bylaw, therefore accessory antennae developments are permitted in every zoning district and are processed through the Preliminary Plan Approval (PPA) process.

- 1.2 Prior to 1990, most antennae were erected without consultation or approval from the Municipality and no rezoning applications were received for antennae developments as a principal use.

However, on 1990 October 17, this Department received an advisory from Communications Canada regarding the licensing of radio transmission installations. The advisory noted that in recent years, there have been objections expressed regarding the

construction or modifications of some antennae and their supporting structures and that the Department of Communications believes that municipal authorities can meaningfully influence the characteristics of radio communications antennae within their boundaries. In accordance with the above, the Department of Communications advised that as of 1990 October 15, its licensing procedures had changed to offer municipal authorities an opportunity to state their views about radio authorization applications.

The Department of Industry, commonly called Industry Canada, is the federal government department generally responsible for radio communications in Canada. Under the authority of the Radio Communications Act, the Minister has the power to approve where each antenna system may be located. Industry Canada's policy is that it will consider environmental effects and conformance to Safety Code 6, which was described in a 1996 May 6 Council report, and will ensure that land-use authority consultation has been taken into consideration before issuing such authorizations.

From reviewing the Declaration required by Industry Canada regarding consultation with municipal authorities and discussing the process with Industry Canada staff, it is, however, apparent that many antennae are approved without municipal government consultation, based on the applicant declaring the proposal to be insignificant.

The intention of this report is to deal with the most prominent type of antennae proposal which Burnaby receives and where the antennae are of a significant nature.

2.0 GENERAL DISCUSSION:

- 2.1 All the rezoning applications which have been processed in Burnaby since 1990 have been for cellular antennae, with the applicants being either Rogers Cantel or B.C. Tel Mobility Cellular. As a result of the growing use of cellular communications, the companies supplying cellular services need to establish increasing numbers of cellular transmission sites in Burnaby as well as in other high demand areas. In addition to Rogers Cantel and B.C. Tel Mobility, Micro Cell Telecommunications Inc. (Micro Cell) received permission from Industry Canada in December 1995 to construct and operate a national Personal Communications Services (PCS) network and it is our understanding that a number of other companies may be permitted into the cellular communications industry in the next few years.
- 2.2 Two trends have been observed related to proposals for antennae as a principal use. The first is that the number of applications has been increasing, as the existing cellular companies look to improve the quality of communication by making the area of each cell site (the area covered by each transmitting antenna) smaller, thus requiring more antennae locations, and new communications companies are licensed by the federal government.

The second trend is that the physical size of the antennae is decreasing. In the past, most proposals for microwave dishes were for dishes which were 4 feet in diameter or more. Now, some proposals are for microwave dishes which are 2 feet in diameter. The most common antenna which staff deal with through the rezoning process is a panel-type directional antenna. When Burnaby first began receiving rezoning applications for cellular antennae, the panel-type directional antennae were typically 1 foot by 5 feet. Recently, staff have had a number of discussions with representatives of Micro Cell regarding the rezoning requirements for a number of potential antennae sites, where the panel-type antennae are 1 foot by 3 feet. Generally, cellular antennae developments can be less obtrusive than in the past, both in terms of the decreasing size of the antennae and the cellular companies' increasing ability to camouflage the antennae through unique site-specific locations and painting to match the building colour.

The trends of the increasing numbers of rezoning applications for antennae as a principal use and the decreasing size of the antennae, as well as other methods of making the antennae less obtrusive, made staff question the necessity and appropriateness of requiring rezoning for all proposals for antennae as a principal use, if they were not in the P2 District.

- 2.3 As part of the review of the regulations of antennae, staff contacted 13 other municipalities in Greater Vancouver to determine what regulations/process apply to antenna developments in their areas. In some cases, the municipality's requirements fit into more than one type of process category, and in some cases, the process required depended on the proposed location. Therefore the number of municipalities listed in each category total more than 13.

Five municipalities permit antennae in all zoning districts. They are exempted from any height restrictions and are processed through a Building Permit. Three municipalities require Development Permits in some cases, while two municipalities refer applications to an Advisory Design Panel. Burnaby does not have a Development Permit system or an Advisory Design Panel. Two municipalities require a Development Variance Permit if the antenna exceeds the height restrictions in the Zoning Bylaw, while one municipality permits antennae in a number of zoning districts and has done text amendments to their Bylaw to permit them as proposals have been received. Four municipalities require Planning staff to review antenna proposals. However, their ability to require changes through this informal process is unclear.

While the information obtained in this survey of other Greater Vancouver municipalities is not necessarily appropriate or applicable to Burnaby, the general results are considered supportive of the concept of liberalizing Burnaby zoning requirements for principal use antennae.

- 2.4 The primary issue related to antennae developments is aesthetics and design considerations. As was previously noted, health and safety matters related to antennae are within the jurisdiction of the federal government. In light of the fact that there is virtually no pedestrian or vehicular traffic associated with an antenna development and that health concerns are a federal government mandate, the only land use consideration appears to be the aesthetics of the antenna.

While principal use antenna proposals are generally becoming less obtrusive, there is still a great variety of antennae and their support structures in terms of their size and general appearance. The most basic difference in potential impact is between those which are on free-standing structures, such as monopoles or grid-type towers and antennae which are attached to the sides of buildings, usually high rises. In addition to free-standing antenna developments which can be very noticeable, there are also many other types of antennae, such as dipole antennae, guy wire supported antennae and microwave dishes that can be quite obtrusive and unsightly on the City skyline.

- 2.5 In light of the above considerations, it is considered appropriate to provide physical standards in the Zoning Bylaw which would differentiate between the more noticeable, possibly obtrusive antenna proposals, and those which are potentially an integrated, compatible component of the urban form. It is recommended that the antennae developments which conform to the regulations proposed below be considered a permitted principal use in all zoning districts, while other antennae developments would continue to be permitted only in the P2 District.

It is recommended that antennae which meet all of the following physical standards be permitted in all zoning districts:

- a) Antennae attached to buildings;
- b) Antennae must be a minimum of 9.1m (30 ft.) above the ground;
- c) Each individual antenna to have a maximum size of 10 sq.ft. on the building face with a maximum total antennae area of 40 sq.ft. on each building face;
- d) Antennae must not extend more than 1 meter (3.2 ft.) above the parapet line of the building.

With regard to the last proposed regulation, staff would prefer that antennae not extend beyond the parapet line at all. However, through our discussions with the cellular communications companies, staff have realized that this is not always practical. Antennae are often proposed to be located on elevator or mechanical penthouses, which is supported by staff as being less obtrusive than on the main building face. The problem, however, is that the coverage area of the antennae can be blocked by the roof line, therefore, the antennae must sometimes be raised to cover the immediate area.

With the exception of the location of the antenna relative to the parapet line, staff are confident that the proposed new regulations will permit antennae developments which are a standard, integral component of urban development, while still requiring Council involvement through rezoning to the P2 District for those antennae which may be more obtrusive or at least noticeable.

It is recommended that these regulations be incorporated into a new sub-section of the Supplementary Regulations in the Zoning Bylaw, similar to the regulations for fences.

2.6 In terms of the antennae proposals reviewed under prevailing P2 District zoning, staff will continue to positively influence these developments to make the antennae integrated into any buildings they are attached to and as compatible with the surrounding area as possible. For example, we will stress our preference for simple monopoles rather than large, grid-type support structures for free-standing antennae and small, geometrically simple antennae attached closely to buildings rather than antennae supported by guy wires well above the building roof.

3.0 CONCLUSION:

3.1 In light of the trends of the increasing number of applications for antennae as a principal use and the decreasing size of some antennae, as well as other methods of making the antennae less obtrusive, staff have reviewed the appropriateness of requiring rezoning for all proposals for antennae as a principal use unless they are in a P2 District. Our review concluded that there are antennae proposals which are an integrated, compatible component of urban development and should not require rezoning. In order to differentiate between these proposals and obtrusive antennae proposals, it is recommended that acceptable physical standards be included in the Supplementary Regulations of the Zoning Bylaw to determine which antennae proposals must be considered through the rezoning process.



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Director Planning and Building

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cc: City Solicitor
Chief Building Inspector

