

PLANNING FOR CELL TOWERS

EXECUTIVE SUMMARY

Council directed Administration to study and evaluate the feasibility of identifying locations for cell towers at early planning stages. The intent of the study was to examine, in collaboration with stakeholders, whether The City can designate cell tower sites in future communities, providing the public with more information.

Administration has undertaken investigation with cell tower providers and the development industry. This investigation has uncovered that while the need for wireless services is increasing, the need for large independent cell tower sites is decreasing due to technological advances in the industry.

Identifying specific cell tower locations is not recommended; however, general location criteria and principles will be tested in developer funded Area Structure Plans (ASPs) and potentially incorporated in the proposed New Community Planning Guidebook. Additionally larger cell towers may not be required or as extensively used in the future for wireless service provision.

ADMINISTRATION RECOMMENDATION(S)

The SPC on Planning and Urban Development recommends that Council:

1. Approve general location criteria and principles for cell tower locations within new communities as outlined in this report;
2. Incorporate the approved general location criteria and principles within the Rangeview and Cornerstone Area Structure Plan processes; and
3. Direct Administration to return to the SPC on Planning and Urban Development no later than the end of Q4 2014 with a recommendation on including the cell tower location criteria and principles within the New Community Planning Guidebook, as per report PUD2013-0492.

RECOMMENDATION OF THE SPC ON PLANNING AND URBAN DEVELOPMENT, DATED 2014 FEBRUARY 12:

That the Administration Recommendations contained in Report PUD2013-0713 be approved.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2013 September 06 Council approved PUD2013-0492 and directed Administration to develop cell tower location criteria for approval in principle and return to the Standing Policy Committee on Planning & Urban Development no later than the end of Q4 2013; and return to Council by no later than the end of Q4 2014 with cell tower location criteria for consideration of approval in the New Community Guidebook.

At their 2012 September 04 meeting, Council approved NM2012-40 Planning for Cell Towers moved by Alderman Pootmans and seconded by Alderman MacLeod, "that Administration be directed to study and evaluate criteria that would enable The City to identify appropriate locations to accommodate cell towers at the early planning stages of development and that a

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report be prepared for the Standing Policy Committee on Planning & Urban Development no later than Q2 2013.

The Telecommunication Antenna Structures Siting Protocols (PUD2012-0156) was implemented by Council in 2011 May. These protocols primarily focus on cell tower sites located within existing communities. The purpose of the Telecommunication Antenna Structures Siting Protocols is to establish procedures for The City to influence the placement of proposed telecommunication antenna structures. The Protocols also helps stakeholders understand the implementation methods, processes, procedures and criteria.

BACKGROUND

Federal Approval Process

The federal Minister of Industry has the authority under the *Radiocommunication Act* to issue radio authorizations, to approve each site on which Telecommunication Antenna Structures may be located, and to approve the erection of all masts, towers and supporting structures. The City has no approval authority, but is allowed input into the federal process.

City Contribution

Land Use Authorities are well qualified to explain to proponents of cell towers the particular amenities, sensitivities, planning priorities and other relevant characteristics that may be affected by the placement of cell towers. By working together, The City and proponents can find solutions to address reasonable and relevant concerns, or, as an option, alternative antenna system siting arrangements. The City may assist proponents who are planning to modify or install antennas and supporting structures, while at the same time give due consideration to local land-use plans, publicly sensitive areas and specific environmentally sensitive areas.

City Evaluation

The City's Development & Building Approvals Business Unit examines proposed submissions for cell towers based on specific physical criteria. They review and evaluate such things as the proposed location of a cell tower and aspects of its design, including, but not limited to:

- Height
- Colour
- Type
- Number of antennas to be mounted on the structure
- Screening of any equipment
- Design and materials to be used for any equipment shelter and or cabinets
- Potential for co-locating other proponents' antennas on the structure
- Compliance with The City's Telecommunication Antenna Structures Siting Protocols

Based on this review, Administration issues a letter of support (concurrence) or non-support (non-concurrence).

The Cell Tower Location Criteria project was initiated to provide a common basis for determining the location of cell towers in new communities prior to development. At the time the Notice of Motion was approved, the intent was to establish criteria within each new ASP. Since

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then Council has directed Administration to consolidate many new community planning policies in the proposed New Community Planning Guidebook.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

Administration consulted with telecommunication industry representatives and found that cell tower technology is changing rapidly. The cellular industry is piloting new technology to provide wireless services, including small cell technology. There are 57 small cells in place between Rogers, TELUS, Wind, and Bell.

The small cell base station offers three advantages:

- 1) Smaller equipment (stealth designs);
- 2) No ground space required (mounted on existing infrastructure); and
- 3) Reduces requirement for a greater number of traditional macro antenna sites.

Due to this new technology, larger cell towers may not be required or as extensively used in the future for wireless service provision due to new technology.

New Communities Cellular Tower Location Criteria

Erecting an antenna structure may raise concerns in a community about aesthetics or property values, or about the safety of exposure to radio frequency electromagnetic fields from towers. The general location criteria were created in consultation with stakeholders and should be taken into consideration when ASPs are developed.

Preferred Location

- Community entranceway architectural features (eg. Kincora's Bell tower)
- Industrial and commercial areas
- Transportation and Utility Corridors
- In close proximity to similarly-scaled structures
- Institutional uses where appropriate, including, but not limited to, those institutions that require telecommunications technology: Emergency services, hospitals, colleges and universities.
- Appropriate architectural features within developments
- Other non-Residential Areas, where appropriate
- Adjacent to parks, green spaces and golf courses. Wireless sites can be incorporated into light standards for ball parks and other recreational parcels

Discouraged Locations

- Adjacent to front of doors, windows, balconies or residential frontages
- Ecologically significant natural lands
- Riverbank lands
- Sites of topographical prominence
- Heritage areas (unless visibly unobtrusive) or on heritage structures unless it forms an integrated part of the structure's overall design (i.e. through the use of stealth structures).
- Pitched roofs.

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- Where public views and vistas of important natural or manmade features would be obstructed

Criteria for cell tower locations would be applicable across all new community areas. To adhere to Council's direction to provide common new community policies within a single document, Administration recommends that the Cell Tower Location Criteria be considered during the Cornerstone ASP (Northeast Regional Plan Cell A) and the Rangeview ASP (Southeast Planning Area Regional Policy Plan Cells C and D) processes. Both of these items are expected to be at Council in Q3 2014.

If approved, Administration will make a recommendation on whether to integrate the Cell Tower Location Criteria into the New Community Planning Guidebook. Administration will report back by no later than Q4 2014 in order to allow time for the criteria to be tested during the development of the two ASPs in Q1 and Q2 of 2014; and for the ASPs to go through the approval process, expected in Q3 2014.

Stakeholder Engagement, Research and Communication

Administration undertook preliminary engagement and research on the subject of cell tower technology with industry stakeholders and other City business units.

Strategic Alignment

The proposed program is aligned with guiding policies contained in City Wide policies for a prosperous economy within the MDP. The timing of this initial criteria aligns with the timelines of the two Pilot Projects for the developer funded ASPs and the development of the New Community Planning Guidebook. The results of the testing of policy within these ASP processes may enable adoption their within the New Community Planning Guidebook.

Social, Environmental, Economic (External)

This report was reviewed for alignment with The City's Triple Bottom Line policy. Criteria for cell towers within new communities supports planning policy, research and analysis, initiative and strategies needed to improve the overall quality and function of information and communication technologies within Calgary.

Social

Creating criteria for locating a tower, or new cell technology, on a site that is more acceptable and predictable to the citizens of Calgary may improve Calgarians' quality of life.

Environmental

The proposed criteria will assist in preserving views and vistas of both natural and man-made features.

Economic (External)

Calgary businesses and citizens require and expect dependable wireless telecommunication service across the entire city. Cell towers assist in providing this service.

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Financial Capacity

Current and Future Operating Budget:

No implications are identified

Current and Future Capital Budget:

No implications are identified

Risk Assessment

Stakeholders have identified lengthy public engagement sessions as costly, burdensome, and potentially confusing. Early discussions may mitigate possible conflict and provide for better and accepted cell tower locations.

REASON(S) FOR RECOMMENDATION(S):

Providing clearer criteria on both encouraged and discouraged cell tower locations at the outset of the development process may decrease community opposition. Administration requests Council's approval of the general location criteria so that the criteria can be used during the development of the Rangeview and Cornerstone ASPs. The effectiveness of the criteria will then be evaluated and considered for approval within the New Communities Planning Guidebook.

Attachments

None