



PUBLIC WORKS DEPARTMENT

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CITY COUNCIL STAFF REPORT

Meeting: September 15, 2020

Subject

Study Session on Proposed Revisions to the Permitting Guidelines for Small Cell Facilities within the Public Right-of-Way.

Recommended Action

Conduct a study session on proposed revisions to the permitting guidelines for small cellular facilities in the public Right-of-Way and provide recommendations.

Background

For the past several years, the City of Cupertino has been working with wireless service providers to permit the installation of small cellular equipment on City-owned streetlight poles in the public Right-of-Way, and has instituted design standards and encroachment permit application requirements for these facilities. While wireless companies are legally permitted to install their infrastructure in the public Right-of-Way, local governments can regulate these facilities' placement and their aesthetic impacts, and can manage the Right-of-Way to ensure public safety and uses. However, as described below, federal law and regulations limit such local control, including requiring that local aesthetic regulations be reasonable, non-discriminatory, and published in advance, and mandating a rapid review of small cellular facility permit applications under a "shot clock" system. Cupertino's existing small cellular permitting guidelines have worked within these limits while also upholding strong aesthetic and safety standards for the City.

The City Council has conducted prior study sessions on the City's regulation of small cells on May 16, 2017, July 17, 2019 and May 5, 2020. As described below, at the May 5, 2020 meeting, Council recommended that staff analyze the City's existing small cellular permitting guidelines to look for opportunities to enhance the City's aesthetic standards and clarify the permitting process. The resulting *Guidelines for Encroachment Permit Submittals for Wireless Communications Facilities on City Owned Poles – Updated August 27, 2020* (Attachment A) helps ensure small cellular facilities are visually unobtrusive. They further develop the City's reasonable, aesthetic standards and provide non-discriminatory processes to manage the build-out of wireless telecommunication networks throughout the City.

Small cellular equipment includes antennae and associated cellular facilities that help enhance the coverage and capacity of cellular networks. Such small cell facilities enhance providers' 4G networks and will help to make implementation of the fifth generation of cellular services, or "5G", more effective. Relative to macrocell towers, small cell antennae have a smaller size, lower power output, smaller coverage area, and potentially higher signal frequency and faster transmission speeds with the implementation of 5G technology. For example, a typical macrocell tower has a power output between 20 and 40 watts, whereas a small cell antenna has a considerably lower power output that ranges between 1 and 5 watts. The higher frequency signals do not travel as far and have a harder time penetrating materials, including vegetation and building walls.

The available spectrum licensed for cellular use is extremely scarce and expensive, and given that cellular usage by the public has increased exponentially in the last 20 years, wireless providers needed to find ways to overcome this limitation in available frequency. Small cell facilities achieve this by repeating and reusing the same frequencies at different locations in a geographic area, and therefore have been recognized by industry leaders as an important method of increasing a wireless provider's cellular network capacity, quality and coverage, as each small cell acts as an individual node for the carrier's licensed spectrum.

The City of Cupertino has established Master License Agreements with five companies for installation of small cell facilities on City-owned streetlight poles in the City's Right-of-Way. The five companies include Verizon, AT&T, Extenet, Crown Castle, and Mobilitie.

Of these five companies, Verizon and AT&T are actively seeking permits for small cell installations in the Right-of-Way throughout the City, both in commercial areas and within residential zones, in order to improve the data capacity and coverage of their networks.

Relevant State and Federal Law and Regulations

State and federal law and regulations, including the Federal Telecommunications Act of 1996 and provisions of the California Government Code and Public Utilities Code, govern how local jurisdictions may regulate wireless facilities, including small cellular facilities installed in the public Right-of-Way. Local governments, under these laws and their police power authority to establish aesthetic conditions for land use, have authority to regulate small cellular facilities' placement and their aesthetic impacts. They also have authority to manage the Right-of-Way to ensure public safety and to coordinate uses.

These powers enable local governments to enact regulations that would, for example, prevent small cellular facilities from interfering with use of the Right-of-Way and that protect public safety by ensuring the poles on which small cells are mounted will securely

bear their weight. To reduce the aesthetic impacts of small cell facilities, a local government can set design standards such as requiring screening facilities and having equipment coloring match the pole.

This authority is balanced against state and federal laws and regulations that limit the scope of local government action regarding wireless facilities generally, and small cells in particular. A September 26, 2018 Federal Communications Commission (FCC) order placed even stricter limits on such local regulation. These limits are designed to facilitate rapid deployment of small cellular facilities and prevent constraints on carriers' ability to provide a full range of wireless services. Key limits on local regulation are summarized below:

- Regulation of Wireless Facilities Must Not Be Based on Health Concerns

Under federal law, a local government may not set standards for wireless facilities based on concern over Radio Frequency (RF) emissions from those facilities, beyond requiring that those facilities' emissions meet the FCC's established emission limits. RF emissions from small cells in Cupertino typically fall around 100 times below the FCC's limits. Concerns over the effects of RF emissions from cellular equipment include concerns about the health effects of these emissions. As a result, the City may not deny a permit application for a small cellular facility based on concerns over perceived health effects of the facility.

- Regulation Must Not Have the Effect of Prohibiting Wireless Service

Federal law also requires that local government regulation of wireless service not prohibit or have the effect of prohibiting the provision of personal wireless services. The FCC's September 2018 order specified that "an effective prohibition occurs" when a regulation "materially inhibits a provider's ability to engage in any of a variety of activities related to its provision of a covered service." It further specified that a local jurisdiction's regulation of wireless services can amount to an effective prohibition where it prevents a carrier from improving the quality of their service or from adding new technologies and services, not just where it prevents a carrier from filling gaps in service.

This means that a jurisdiction cannot deny a service provider's wireless facility application on the basis that the jurisdiction finds the provider's existing coverage or range of services adequate. Local governments also may not enact a blanket prohibition on installation of small cell facilities in a particular area of the City or in specific neighborhoods. However, a jurisdiction could have grounds to deny a specific placement of a small cellular facility if there is a reasonable alternative location available. Finally, aesthetic regulations for small cell facilities must be reasonable – meaning technically feasible and reasonably directed at remedying aesthetic harms – and published in advance.

- Short “Shot Clocks” for Review of Small Cell Facility Applications

Federal law also requires local governments to act on applications for new wireless facilities within “a reasonable period of time.” The FCC’s September 2018 order sets new time limits, or “shot clocks,” defining presumptively reasonable periods of time for review of small cell facility applications. Under the FCC’s order, a jurisdiction has 60 days to review an application for placement of a small cell facility on a preexisting structure—such as an existing streetlight, utility pole, or traffic signal—and 90 days for review of an application for attachment of small cell facility to a new or replacement structure.

The shot clocks begin to run the day after an application is submitted. A jurisdiction has 10 days after submission to notify an applicant if its application is incomplete. If the jurisdiction timely provides that notice, the shot clock stops and is reset if the application is resubmitted. The jurisdiction has 10 days to review any resubmitted application for completeness and notify the applicant of missing information, at which point the shot clock tolls while the applicant assembles that information. Under this framework, the City is required to review and make a determination on small cell applications in a short amount of time, placing additional pressure on the application process.

The FCC’s September 2018 Order was challenged as contrary to law by several coalitions of municipalities and municipal associations, including the League of California Cities, of which Cupertino is a member. On August 12, 2020, the Ninth Circuit Court of Appeals upheld many aspects of the 2018 order, including the “shot clock” application review periods and limits on fees charged to carriers. However, the Ninth Circuit vacated the 2018 order’s requirement that all aesthetic regulations of small cells be “objective,” because the FCC failed to provide a reasoned explanation for that requirement. The Court also held that the order’s requirement that local regulation of small cells be no more burdensome than regulation of other types of infrastructure was contrary to federal law; federal law permits different regulatory treatment of different types of service providers as long as that treatment does not unreasonably discriminate between providers of functionally equivalent services. Parties to the case may seek rehearing of the 9th Circuit’s decision; that request for rehearing is due September 11, 2020. If rehearing is denied, parties would then have 90 days to file a petition for the Supreme Court to review the decision.

Cupertino Small Cellular Facility Permitting Process

The City has established encroachment permit application requirements for small cellular facilities in the public Right-of-Way. The City’s process for accepting and reviewing applications for these facilities involves the following steps:

1. Pole Availability Request
2. Initial Encroachment Permit Submittal
3. Public Notification Process
4. Final Encroachment Permit Submittal

5. Post-Construction Requirements

Discussion

At the May 5, 2020 City Council meeting, the City Council requested that staff look for opportunities to establish site preference guidelines to assist in locating small cell facilities in more preferred areas where visual impacts would be minimized. This recommendation, as well as other input provided by Council, has been incorporated in the attached revised *Guidelines for Encroachment Permit Submittals for Wireless Communications Facilities on City Owned Poles – Updated August 27, 2020* (Attachment A). While the guidelines have retained the same basic permit process as has been used in the past, the updated guidelines provide further clarity regarding processes and requirements, some enhancements to the public notification process, and a methodology for ensuring selected locations are minimally intrusive. The proposed modifications of note are as follows:

- The addition of “Attachment C - Siting Preferences”. The establishment of the preferred siting guidelines helps to ensure permitted small cell facilities are either installed at the least intrusive location in the general area where a facility is proposed, or that the permitted installation is essential to facilitate the wireless carrier’s network. Preferred siting factors include:
 - A preference for locations that minimize the need for multiple small cell installations.
 - A categorization of sites in order of preference, with Category 1, non-residential zoning districts, being the most preferred locations, and Category 2, residential zoning districts, being less preferred. Category 2 locations are further broken down by the type of street (as defined by the Cupertino General Plan) on which the small cell facility is being proposed, with boulevards and arterials being more preferred, followed by major collectors, minor collectors, neighborhood connectors, and finally residential streets being the least preferred of Category 2 sites. Where an applicant proposes a facility on a streetlight pole in a Category 2 site, the applicant must provide documentation showing that all streetlight poles in any Category 1 site and in any more-preferred Category 2 site within 500 feet of the proposed facility are infeasible to meet the carrier’s needs. Category 3 sites, being the least preferred locations, are those streetlight poles within 15 feet of a roadway intersection, within 500 feet of another small cell owned by the same carrier, within 20 feet of an occupied structure, or within 100 feet of school buildings or playground equipment. Category 3 sites will only be permitted if the wireless provider can provide documentation showing the site is the only feasible option available to address the carrier’ needs.
- Modifications to the Public Notification Process, including:
 - Increasing the mailing radius from 300 feet to 500 feet.

- Increasing the notification period from 14 days to 21 days.
- Increasing response to inquiries from 48 hours to 72 hours.
- Formalization of the necessary submittal materials.
- Clarifications to many of the Recommended Design Elements, including:
 - Establishment of minimum and maximum elevations for small cell antennae on streetlight poles.
 - Replacement of existing luminaires with LED fixtures.
 - Connections of fiber optic backhaul facilities.
 - Submittal requirements for modifications to existing wireless equipment.
- Clarifications on the permitting process steps, including policies and submittal materials.

The updated guidelines were sent to representatives of Verizon, AT&T and T-Mobile for review and input to help ensure their understanding of the modifications and to receive their advance feedback. Carrier input included a request to lengthen the response time to resident inquiries from 48 hours to 72 hours. Due to the increased notification radius (from 300 feet to 500 feet), there is the potential for an increase in resident inquiries. Lengthening the response time by one day sets a predictable response time for residents that accounts for the potential of an increased volume of inquiries.

The updated guidelines work within federal law and FCC regulations and strike a balance between:

- The expectations of the residents regarding an orderly build out of cellular facilities.
- The needs of wireless providers to enhance their networks.
- The goals of the City for robust aesthetic regulation of small cellular facilities.
- The needs of the City to facilitate permitting in an economic and efficient manner.

Establishing a framework for preferred locations for small cell facilities and requiring that wireless carriers provide factual information to substantiate proposed installations in less-preferred areas will provide transparency to Cupertino residents and strengthen the City's aesthetic standards, while ensuring reliable, first-class cellular networks within the City.

Sustainability Impact

No sustainability impact for hearing this report.

Fiscal Impact

No fiscal impact for hearing this report.

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Reviewed by: Roger Lee, Director of Public Works

Approved for Submission by: Dianne Thompson, Assistant City Manager

Attachments:

A – Guidelines for Encroachment Permit Submittals for Wireless Communications Facilities on City Owned Poles – Updated August 27, 2020

B – Redlined - Guidelines for Encroachment Permit Submittals for Wireless Communications Facilities on City Owned Poles – Updated August 27, 2020