



## PUBLIC WORKS DEPARTMENT

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### CITY COUNCIL STAFF REPORT

Meeting: April 20, 2021

#### **Subject**

Study Session on the City of Cupertino's Permitting Guidelines for Small Cell Facilities within the Public Right of Way.

#### **Recommended Action**

Conduct a Study Session on the Permitting Guidelines for Small Cell Facilities in the Public Right of Way, Provide Input, and Consider Recommending that an Ordinance Regulating Small Cell Installation be Prepared for Adoption.

#### **Background**

Under state and federal law, wireless communications providers are given the right to install wireless facilities, including small cells, within the public right of way, subject to certain preserved local powers. The City of Cupertino requires encroachment permits for installation of small cell facilities in the public right of way, which in turn are subject to the City's *Guidelines for Encroachment Permit Submittals for Wireless Communications Facilities on City Owned Poles* (Attachment A) ("Guidelines"). The Guidelines strive to place small cell facilities in the least obtrusive locations available while complying with federal regulations.

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, resulted in revisions to the City's Guidelines. Staff presented these updated Guidelines to the public and Council at the September 15, 2020 City Council meeting.

The City has historically regulated small cell permitting via formal administrative written guidelines rather than Municipal Code ordinances. Guidelines can be modified more readily than ordinances to keep up with the ever-changing legal regulation and the fast-paced technological environment surrounding these facilities. City ordinances typically require more time to revise, which could result in the City being less nimble in responding to changes in law and technology. The City's Guidelines for permitting small cells are

enforceable under the City's Municipal Code provisions that require and regulate Encroachment Permits for installations in the public right of way. If the City Council decides that a small cell ordinance is not necessary, staff will continue to inform the Council of any modifications to the Guidelines prior to implementing them. Alternatively, the City Council could adopt the Guidelines via resolution.

#### Relevant State and Federal Law and Regulations

The federal government, as described in further detail below, requires that local government regulation of wireless service not prohibit or have the effect of prohibiting the provision of personal wireless services. Therefore, the City's small cell permitting Guidelines are set up to not prohibit the installation of small cell facilities within any zoning districts or areas of the City. Instead, they establish objective criteria to allow facilities to be installed in areas with the least impact possible.

- Regulation of Wireless Facilities May Be Based on Aesthetic and Public Safety Concerns

State and federal law and regulations, including the Federal Telecommunications Act (FTC) 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 cell 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 prevent small cell facilities from interfering with use of the right of way and to 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 does not supersede state and federal laws and regulations that limit the scope of local government action regarding wireless facilities, in general, 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 to prevent constraints on the 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 establish location requirements or 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.

Where local jurisdictions have denied applications for small cell facilities on grounds which wireless carriers consider violate the above federal law requirements, the carriers have sued the cities in federal court. For example, Verizon and AT&T each sued the City of Los Altos after the Los Altos City Council denied applications for 12 AT&T small cell applications and one Verizon application in December 2019. The lawsuits contend that the Los Altos' small cell regulations amount to an unlawful ban on wireless services in the vast majority of the city. Those regulations prohibit small cell installations within 500' of school buildings and in any residential district, unless an applicant can establish that denial of a small cell site in one of those areas deprives a carrier of its rights under federal and state law. Although both carriers presented the City with information explaining why the sites in question were necessary to meet their service needs, the City Council found that the information was insufficient to establish that a denial would violate the law. The litigation in both Los Altos cases is ongoing.

- 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 their application is incomplete. If the jurisdiction provides that notice in a timely manner, 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. In August 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. Municipal plaintiffs in the case recently petitioned the U.S. Supreme Court to review the portions of the Ninth Circuit’s decision that continue to limit local government authority. The Supreme Court will likely decide in May 2021 whether to hear the case. If the Supreme Court declines to hear the case, the Ninth Circuit’s decision will become final.

### Discussion

The City’s small cell permitting Guidelines provide clarity regarding the permit application processes and requirements, including the public notification process and site preference standards, which work towards siting small cells in locations that minimize visual impacts, while also complying with federal regulations.

### Site Preference Guidelines

Site Preference Standards are included in “Attachment C - Siting Preferences” of the small cell Guidelines. These standards help to ensure permitted small cell facilities are installed to minimize visual impacts in the general area where a facility is proposed and to prioritize non-residential locations. The standards establish three tiers of preference as follows:

- Preferred Sites (Category 1)
- Less Preferred Sites (Category 2)
- Least Preferred Sites (Category 3)

Category 1 (preferred) sites include any streetlight pole located in non-residential zoning districts that do not trigger a Category 2 or 3 designation. Applications submitted for poles in Category 1 locations are reviewed strictly for engineering and constructability concerns. They follow standard noticing procedures, but do not require an alternative location assessment or documentation to establish need for their placement.

Category 2 (less preferred) sites include any streetlight poles in residential zoning districts that do not trigger a Category 3 designation. If a carrier seeks to install a small cell facility in a Category 2 site, it must show that any Category 1 site or any more preferred Category 2 site within 500' is infeasible to meet their needs.

Category 3 (least preferred) sites include any streetlight poles in residential zoning districts that also are located within any of the following areas:

- Closer than 15 feet to a signalized public roadway intersection. An intersection is measured from the start of the curb radius.
- Closer than 500 feet to any other small cell facility in the right of way owned by the same wireless carrier.
- Closer than 20 feet to an occupied structure.
- Closer than 100 feet to any public-school building.
- Closer than 100 feet to any publicly assessable playground.

A facility shall not be permitted in a Category 3 site if non-Category 3 sites are available within 500 feet of the proposed facility, unless the applicant can provide documentation showing that a Category 3 site is the only feasible option available to meet the carrier's needs.

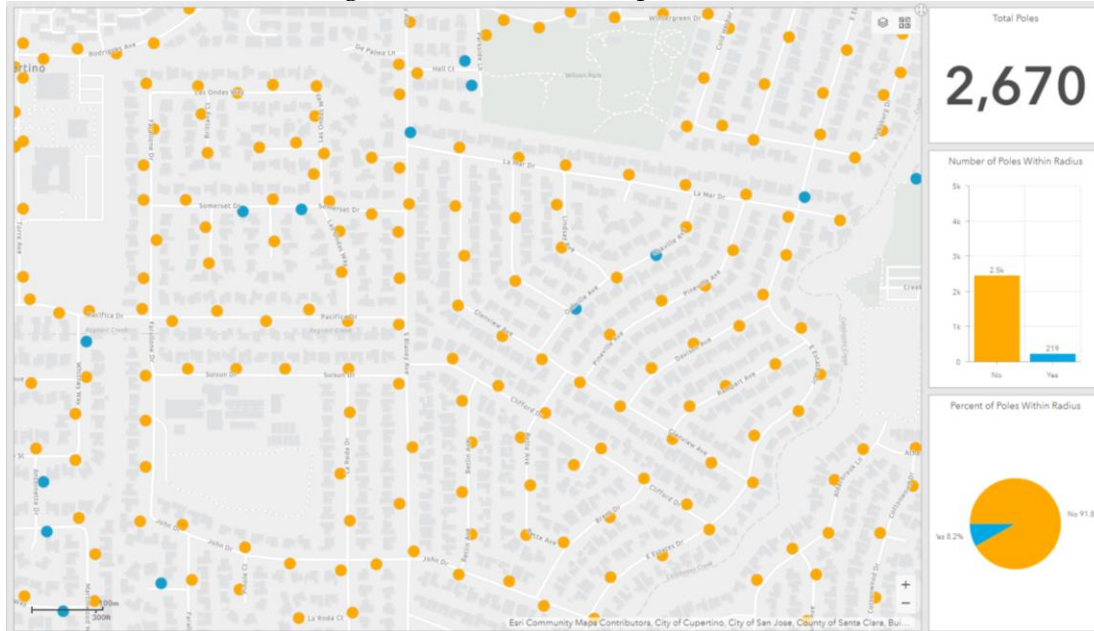
To strictly prohibit small cell facilities in residential zones or to establish large mandatory setbacks would result in making large portions of the City "off limits" and could be an effective prohibition on wireless service in those locations, in violation of federal law. In contrast, the three-tiered approach enables the City to work with carriers to place facilities in locations that reduce their visual and aesthetic impacts on the public right of way and public vantage points, while still meeting carriers' service needs. This will typically mean siting small cells on the streetlight furthest from nearby occupied structures, or, if all occupied structures are roughly equally distant from streetlight poles, in the location that potentially has the least visual impact.

As noted above, the City has defined any site within 20' of an occupied structure as a Category 3 location. When preparing the Guidelines, the City established this 20' minimum setback to ensure that only those locations most proximate to occupied structures were considered "Least Preferred," enabling the City to easily identify alternative Category 1 and 2 locations with less visual impact, and to steer small cell facilities more effectively to those sites. The 20' setback from occupied structures results

in 8% of the City’s streetlights being designated as Category 3 sites. The diagram below shows all Cupertino-owned streetlights within one region of the City. The blue dots indicate streetlights that are within 20’ of an occupied structure and the orange dots are streetlights that are further than 20’.

### 20’ Setback Example

(Blue Circles show streetlights within 20’ of occupied structures)



### Consideration of Greater Residential Setbacks

The City has created an online tool that shows which existing poles would be considered Category 3 sites based on setback distances from occupied structures ([https://gis.cupertino.org/webmap/poles\\_radius/](https://gis.cupertino.org/webmap/poles_radius/)). Each incremental increase in the setback distance results in an increased percentage of City streetlight poles that would fall within Category 3 locations, as shown in the table below.

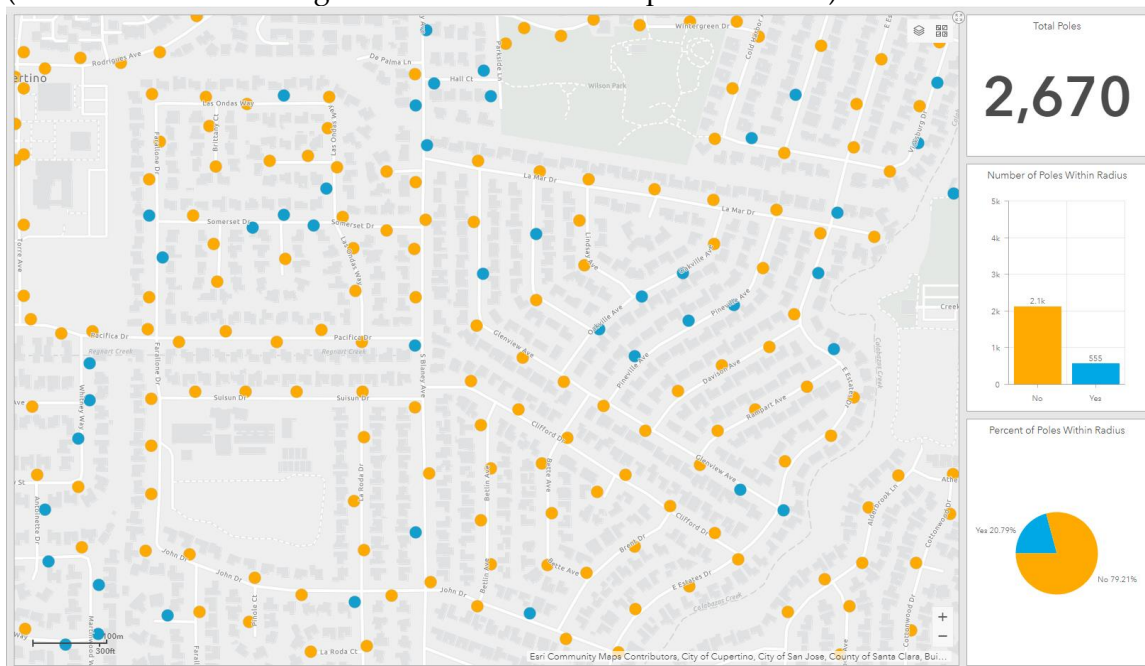
Setback Distance from Occupied Structures	Percentage of All Streetlight Poles that fall within Setback
20'	8%
25'	21%
30'	41%
40'	68%
60'	81%
100'	93%

If the 20' setbacks from occupied structures were increased to 30', some pockets within the City would have no non-Category 3 sites. With setbacks of 40' entire areas of the City would be devoid of non-Category 3 sites, which could result in a less objective framework for review and provide more flexibility for carriers to select locations. In such areas all poles would be in Category 3, Least Preferred, and no poles would be more preferred.

The images on the following pages further show how increasing the setback preference from occupied structures increases the number of poles in Category 3 locations:

### 25' Setback Example

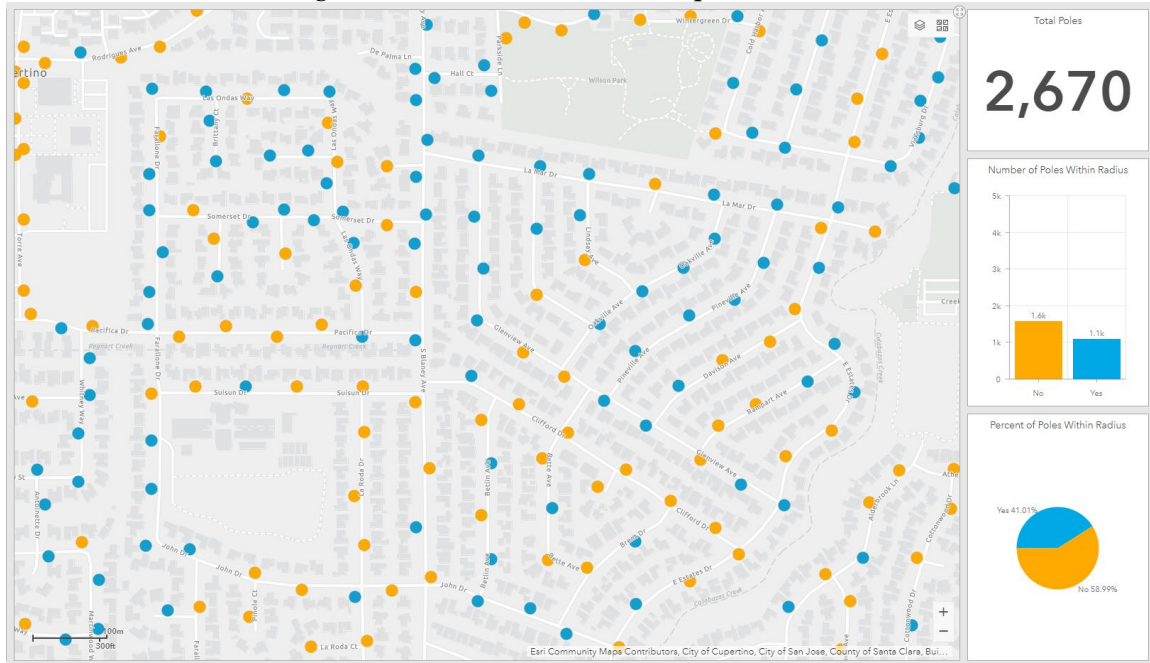
(Blue Circles are streetlights within 25' of an occupied structure)





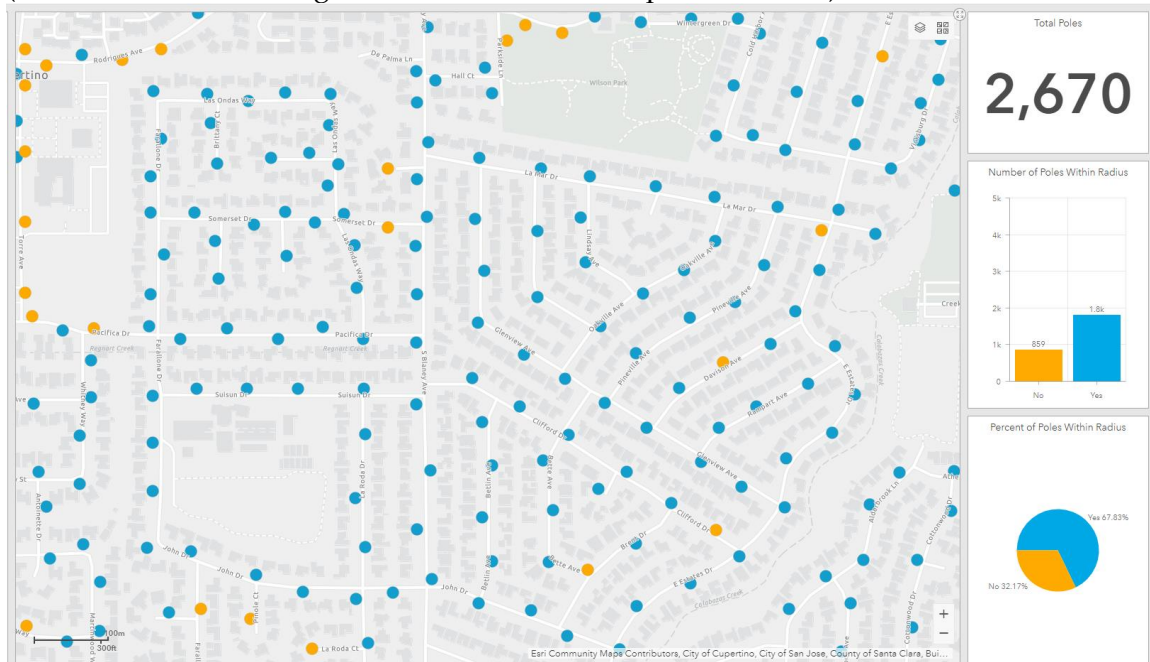
### 30' Setback Example

(Blue Circles are streetlights within the 30' of an occupied structure)



### 40' Setback Example

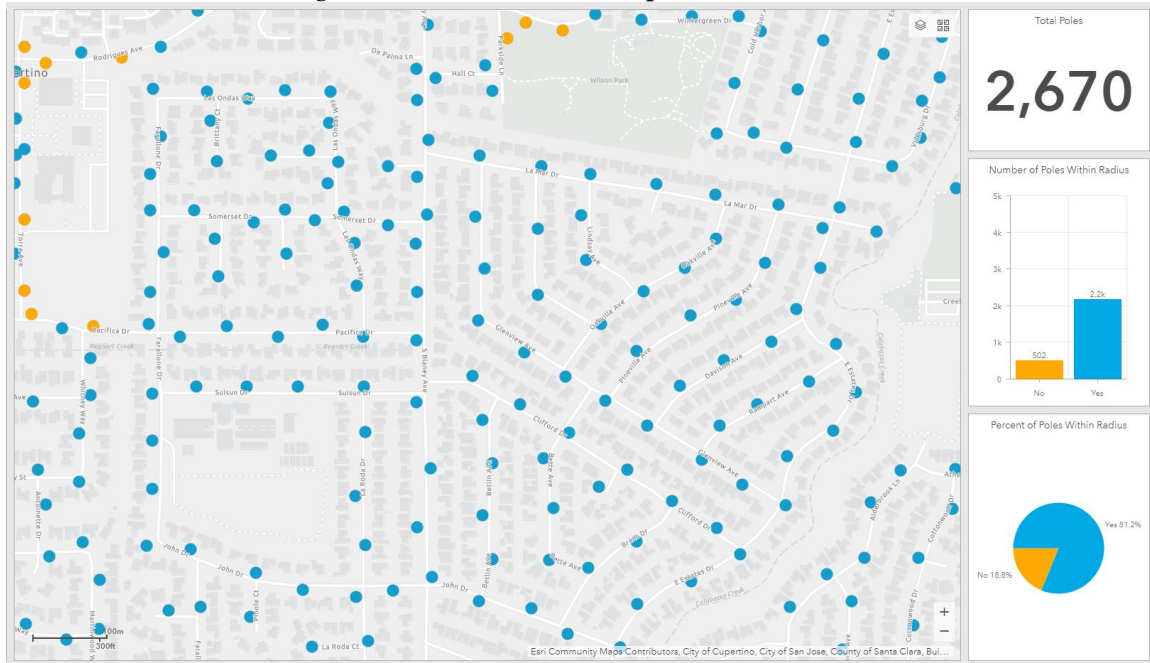
(Blue Circles are streetlights within 40' of an occupied structure)





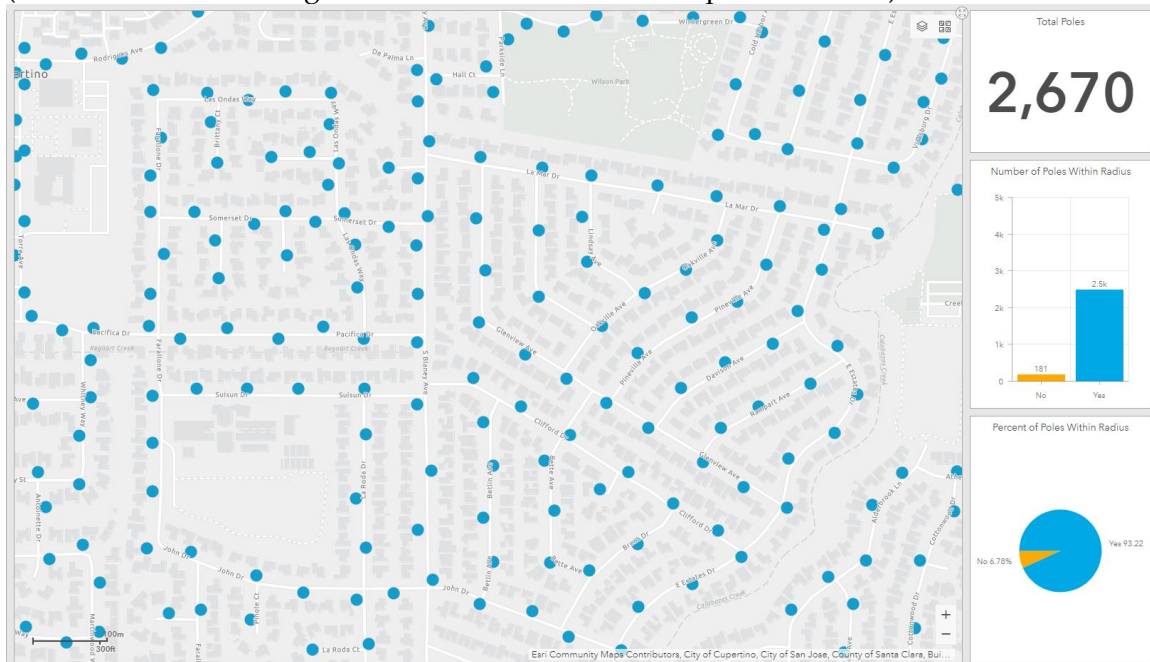
## 60' Setback Example

(Blue Circles are streetlights within 60' of an occupied structure)



## 100' Setback Example

(Blue Circles are streetlights within 100' feet of an occupied structure)



If the City were to increase the setback distances for the designation of Category 3 sites, it may be helpful to require permit applications be accompanied by documentation showing that the site is the most distant from any occupied structures within a 500' radius.

#### *Distances between small cell facilities*

The Guidelines also require small cell facilities owned by the same carrier be spaced at least 500' apart, unless a carrier can provide documentation with their small cell permit application showing that a closer site is the only feasible location that meets their service needs. Small cells typically use frequencies that have limited signal propagation distances which require shorter distances between nodes. These frequencies often need near line of sight and can experience considerable signal interference from foliage, buildings, and other physical features.

When the City updated its small cell permitting Guidelines last year, it received some requests to establish a minimum distance of 500' (or more) between any small cell facility, regardless of the carrier. This recommendation was not implemented for several reasons. For one, the FCC's September 2018 Order states that "a minimum spacing requirement [for small cells] that has the effect of materially inhibiting wireless service would be considered an effective prohibition of service" (FCC 18-133 paragraph 87). The City therefore strove to set a minimum spacing that reflected small cells' limited signal strength. Additionally, the City wanted to ensure no single carrier could space their facilities in a way that could result in the inability of other carriers to effectively provide services within a certain area. The established 500' radius between small cell facilities of the same carrier helps to ensure that carriers can build a network that meets their needs, while also working to ensure pole availability for other carriers, thus helping to ensure a reasonably fair playing field for numerous service providers.

#### *Noticing of planned installations*

As described above, the FCC's September 2018 Order set time limits, or "shot clocks," for completion of the review of small cell facility applications. The City typically has 90 days to review an application for a small cell facility. The 90-day period begins when the City receives the initial permit application submittal. As part of the Guidelines' application procedure, the City has incorporated a public notification process whereby carriers are required to notify, via letter, all property owners located within 500' of the proposed location. Property owners may then comment to the carriers or directly to the City. Under the Guidelines, carriers are required to provide copies of all comments and responses to the City for consideration. By further streamlining its review processes, the City was able to increase the comment period for property owners from 14 days, as set previously, to 21 days, which was an update to the Guidelines last year. The property owner comment period uses nearly one quarter of the shot clock period. The remaining portion of the time limit is needed by the City to coordinate with applicants and to perform technical and engineering related reviews.

The City has received some requests for a longer comment period. Although Cupertino has a 21-day comment period, in practice, the City accepts and reviews all correspondence from residents regarding small cell facilities, even after the comment period has ended. Typical comment periods set by other nearby cities range from 7 days to 20 days:

Campbell	-	14 Days
Los Altos	-	10 Days
Los Gatos	-	20 Days
Mountain View	-	7 Days
Palo Alto	-	14 Days
San Jose	-	20 Days
Sunnyvale	-	14 Days

To provide further notification, transparency, and information to Cupertino residents, the City has created an online GIS map and e-notification sign-up list. The GIS Map shows all proposed, permitted, and active small cell facilities within the city, and the e-notification signup will alert interested parties of any updates to the map. The GIS map and e-notification signup can be found on the Cupertino website here: <https://www.cupertino.org/our-city/departments/public-works/permitting-development-services/small-cell-information>.

#### Additional Information

The City has five master license agreements in place with wireless service providers to govern installation of small cell facilities on City owned streetlight poles. These companies include AT&T, Crown Castle, Extenet, Mobilitie, and Verizon. The license agreements require the companies to obtain encroachment permits for proposed small cell facilities, which in turn requires compliance with the Guidelines as discussed above. The City is actively responding to small cell permit applications from AT&T and Verizon, with Verizon having submitted the most applications to date.

Verizon intends to utilize their small cell 5G network to provide not only wireless phone services, but also a high-speed broadband alternative to other broadband carriers (<https://www.verizon.com/5g/home/>). This approach could provide residents an additional internet service option that has speeds comparable to fiber optic services, without the added expense of “last mile” construction costs necessary to bring fiber optic connections to the building.

Attachment B of the staff report includes links to small cell ordinances and/or application guidelines established by other cities in the region. Council could discuss these regulations during the study session.

#### Sustainability Impact

No sustainability impact for hearing this report.

Fiscal Impact

There is no fiscal impact for hearing this report.

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Prepared by: Chad Mosley, Assistant Director of Public Works

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 – Links to small cell ordinances and application guidelines for other regional cities