



CUPERTINO

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PUBLIC WORKS DEPARTMENT

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**GUIDELINES FOR ENCROACHMENT PERMIT SUBMITTALS FOR
WIRELESS COMMUNICATIONS FACILITIES ON CITY OWNED POLES**

The City of Cupertino seeks to permit wireless carriers to install small wireless communications facilities, within the public right-of-way, in order to provide robust cellular coverage and capacity throughout the City; while ensuring facilities are well-maintained and do not significantly detract from City streetscapes.

The City does not regulate the technologies wireless carriers use, but it does have certain powers to regulate the time, place, manner and aesthetics of wireless communications facilities. These guidelines are intended only to convey design preferences that may not necessarily apply to every facility.

These guidelines also do not address pole selection. However, the City recommends that wireless carriers avoid pole locations where equipment would be in front of architecturally significant features, or in locations where they would have visual impacts of significance.

Wireless providers should be made aware of the City's preference for installation of small cell facilities on City owned street lights, due to the improved aesthetic qualities of these facilities. Wireless providers should work with the City to establish an agreement for the use of City owned street lights.

Below are requirements and guidelines to aid wireless providers in planning facility locations and compiling the necessary information to obtain encroachment permits for wireless facilities on City owned poles. Wireless communications providers are also directed to review and comply with the City's "Wireless Facilities Master Plan" that can be found on the City's website.

Recommended Design Elements

Preferred Equipment Configurations:

- 1) To the maximum extent practical, equipment shall be placed in below grade vaults.**

- 2) **Where equipment cannot be placed in below grade vaults, the wireless facility designer shall to maximum extent possible, conceal equipment within the antenna shroud, and behind street signs located on the pole.**

- 3) **Where facilities cannot adequately be hidden within the shroud and behind street signs on the pole, the wireless facility designer shall utilize a pole design with an integrated base enclosure to conceal equipment.**
 - **When utilizing the base enclosure design, the wireless facility designer shall choose poles that are located outside of driveway and intersection sight lines, as established by City standard details (7-2, 7-4 & 7-6).**

Initial Submittal Requirements:

All encroachment permit applications for small cell facilities within the public right of way shall be submitted to the Public Works Department for review. The submittal shall show the proposed location and the facilities planned for construction, with a photo-simulation depicting the existing and proposed conditions. The submittal shall also provide information on the anticipated power consumption (total wattage) of the facility, and whether or not fans are being proposed. New facilities located in residential areas shall be of a type that does not emit noise. The submittal for any location where a fan is proposed shall include information on the anticipated DBA levels, and shall show compliance with the City of Cupertino's noise ordinance.

Public Works will review the proposed location and facilities for general compliance with build-outs that minimize visual impacts. Features that help to minimize visual impacts include:

- Proposed equipment that is located in underground vaults, to maximum extent possible.
- Concealing equipment in the antenna shroud and behind street signs.
- Concealing equipment within a base enclosure integrated into the pole.
- Concealing wires from view;
- Locating new facility installations near property corners or side property lines, and not directly in front of residences and businesses;

- Minimizing views from habitable living areas (such as bedrooms or living rooms) of residential units which directly face the antenna within 100 feet horizontal distance;
- Ensuring there are no flashing lights or large repetitive warning stickers that are unnecessary, distracting, poorly placed, or non-essential. Warning stickers shall be placed where appropriate, and not at pedestrian eye level, unless directed to do so by the FCC or other regulatory agencies;
- Ensuring that pole height increases are not excessive and/or unnecessary;
- Minimizing equipment offsets from poles;

The initial review process may result in the Public Works Department having comments or concerns regarding the proposed design and location. The Public Works Department may request that facilities be relocated and/or the design be modified to better fit the existing features.

The applicant shall ensure that the operation of new facilities will not cause interference with existing facilities, such that an existing facility would be required to increase its power source or install other equipment to continue proper service. These potential impacts should be considered, measured and mitigated prior to approval of a new facility.

After the Public Works Department deems the initial submittal acceptable, the applicant will be required to notify the surrounding property owners.

Notification Process:

After the City has vetted and provided preliminary approval of a site and the proposed design, the applicant is required to notify all property owners and residents within 300-feet of the proposed installation. Notification material to residents will include a description of the project and the purpose of the proposed facility. The Applicant will provide to the City a mailing list for both owners and tenants (occupant designation for tenants is acceptable) to be notified of the proposed facility installation.

Direct Mailers/Courtesy Letter

Those property owners whose properties are nearest to the proposed facilities shall be notified by registered mail via the U.S. Postal Service. Property owners will be given 14 calendar days to contact the applicant with any questions or concerns.

The letter will provide a description of the purpose of the proposed facility and a map identifying the proposed location of the cabinet. In addition, photo simulations of the proposed equipment and site are to be included. The notification shall also include a telephone number or email address for the Applicant's Community Liaison, with whom property owners can contact with questions or concerns regarding the facility. The Applicant's Community Liaison shall reply to all inquirers within 48 hours of contact. Additionally, the notification shall include a contact number for the Public Works Department— (408) 777-3354 - so that property owners can contact the City directly, if they so prefer. The applicant shall log all contact with property owners, which shall include the date, owner/resident's name, address and the specific questions or concerns the owner/resident has regarding the facility. The applicant shall inform the Public Works Department of all inquiries received during the notification period, so that the Public Works Department may assess the comments and concerns regarding the application, and work with the applicant to address these concerns to the maximum extent practicable.

Final Submittal Requirements:

After the notification period is concluded, and the applicant and the City have worked to address the comments and concerns received through the notification process, the applicant will submit to the Public Works Department the final Encroachment Permit Application which will include:

- Completed Encroachment Permit Application
- Final Improvement Plans (including photo simulations)
- Traffic Control Plans
- Contractor's Insurance Certificate (with the City of Cupertino named as additionally insured)
- List of properties to receive construction notification Door Hangers

(See Attachment A for Cupertino Design Preferences Checklist)

Door Hanger Notice

After the Public Works Department approves and encroachment permit, and at least 1 week before commencement of construction activities, the applicant shall place a "Door Hanger" Notice at all properties that will be affected by construction of the facilities. This notice will inform the property owners of the upcoming construction

and will offer a contact number for the applicant so that property owners can call in construction related inquiries and concerns.

Post-Construction Requirements:

After the facility has been constructed, the Applicant will be required to cover all reasonable costs associated with the measuring, recording, reporting and monitoring of emissions, including EMR/RF and noise associated with the wireless communications facility. Such information shall be provided, within 30 days of activation of the equipment, in an Activation Report which shall be made available to any interested party through the City of Cupertino's Public Works Department.

The Activation Report shall be prepared by a certified professional engineer, or other technical expert approved by the City of Cupertino, and shall provide information that demonstrates the facility will not cause any potential exposure to RF emissions that exceed adopted FCC standards for human exposure. Testing shall be conducted in compliance with FCC regulations governing the measurement of RF emissions and shall be conducted during normal business hours on a non-holiday week day with the subject equipment measured while operating at maximum power. For all measurements made, evidence must be submitted showing that the testing instrument(s) used were calibrated within their manufacturer's suggested periodic calibration interval, and that the calibration is by methods traceable to the National Bureau of Standards. At the sole option of the City Engineer, an agent of the City may monitor the performance of testing required for preparation of the Activation Report.

Notification prior to Activation Report

The Applicant shall undertake to inform and perform appropriate tests for residents of dwelling units located within 100 feet of the transmitting antennae at the time of testing for the Activation Report.

- At least 14 calendar days prior to conducting the testing required for preparation of the Activation Report, the Applicant shall notify the Department of Public Works, and shall send a letter, via registered mail through the U.S. Postal Service, to the resident of any dwelling unit within 100 feet of a transmitting antenna, notifying them of the date on which testing will be conducted.

- Residents notified of the testing may request, in advance of the test, that the Applicant conduct testing of total power density of RF emissions within their residence on the date on which the testing is conducted for the Activation Report.
- Within 30 days of the installation and operation of the facilities, the Applicant shall confirm in writing to the Public Works Department, through an Activation Report, that the facilities are being maintained and operated in compliance with applicable Building, Electrical and other Code requirements, as well as applicable FCC emissions standards.

(See Attachment B for *Wireless Communications Facility Project Completion Checklist*)

Key Milestones

1. Identify placement of facilities - Applicant will develop a deployment plan and schedule, and will share this information with the Public Works Department. Applicant shall work with the City of Cupertino regarding the planned build out of wireless communications facilities, and shall supply a map of proposed siting locations as plans and information become available.
2. Complete field verification – Applicant shall have an engineer visit each individual location/area to identify living units, building addresses, existing facilities, distance measurements, Public Right of Way and private property lines. The Engineer shall also identify other potential sites for Small Cell Facilities in the event that the Applicant's first choice is not realized. Applicant will consider public safety, aesthetics, the overall network design, and will be consistent with all siting criteria agreed to with the City of Cupertino.
3. Initial Submittal – Applicant shall submit an initial location package to the City of Cupertino for review and comment. The package shall include a vicinity map, a photo of the pole, and a simple photo sim showing the layout and location of proposed equipment. The City will review the Initial Submittal for compliance with these guidelines, location concerns and for aesthetic qualities and features of the equipment. The City may request, at this time, that alternative locations or design features be utilized or considered. Applicant shall work with the City to address initial comments and concerns prior to the notification process.
4. Notification - After the Public Works Department reviews and supports the wireless communications facility placement location and layout, Applicant will mail courtesy letters to all residents within 300' of the facility.

5. Response to Inquiries - Applicant will provide a Community Liaison to act as a point of contact for notified property owners. The Community Liaison will retain an inquiry report of all inquiries received and the disposition of each. Applicant will respond to all customer inquiries within 48 hours. Customer concerns will be identified and reviewed by Applicants Construction & Engineering staff.
6. Inquiry Report - Applicant will provide a report to the City detailing all customer inquiries. The information will include customer name, date of receipt, date of response, contact information and resolution. Public Works will review inquiries from residents and will provide recommended actions for the Applicant to follow. These actions may consist of revising the proposed wireless communications facility location or scope, re-notifying affected residents of modifications to facilities and/or requesting installation of additional screening for facilities.
7. Final Submittal – When the notification process and subsequent rectification has been completed to the satisfaction of the City Engineer, the Applicant will submit a complete application package to the Public Works Department that addresses the City Engineer’s comments and concerns. Once all requirements have been addressed, the Public Works Department will issue the necessary permits to the applicant.
8. Construction Notices – The Applicant will have a door hanger delivered to residents affected by construction of the facilities after the necessary permits have been issued, and at least 1 week prior to commencement of construction.
9. Post-Construction Activation – After the wireless communications facility has been constructed, and within 30 days of activation, the Applicant will be required to measure, record and report on the emissions from the facility. The Activation Report shall verify whether or not the equipment is complying within the acceptable emission limits as established by FCC standards and/or other relevant government agencies.

Policies and Requirements:

These guidelines are meant to provide a general overview of the procedures and requirements for installation of wireless telecommunications facilities on City owned poles located within the public right of way. Additional conditions, information and/or procedures may be necessary based on the circumstances, project scope and the location being proposed by the Applicant, or as deemed necessary by the City Engineer.

The Applicant or its successors shall comply fully with all conditions specified in these guidelines, or as modified by the City Engineer. Failure to comply with any

condition shall constitute grounds for revocation. In the event that the Activation Report includes a finding that RF emissions for the site exceed FCC Standards, the Applicant will be required to immediately cease and desist operation of the facility until such time that the violation is corrected to the satisfaction of the City Engineer.

Any carrier/provider authorized by the City Engineer to operate a specific wireless communications facility installation may assign the operation of the facility to another carrier licensed by the CPUC and FCC for that radio frequency provided that such transfer is made known to the City Engineer in advance of such operation, and all conditions of approval for the subject installation are carried out by the new carrier/provider.

Please contact the Public Works Department at (408) 777-3354, or by email at engineering@cupertino.org, with any questions or concerns regarding these guidelines.

ATTACHMENT A

Information to be shown on Plans and Simulations to ensure clarity

		YES	NO
1	Cover Sheet Show the correct project site location on cover sheet (with a vicinity map). Indicate the street address(s) for the nearest building(s).		
2	Cover Sheet Provide a clear project description describing types and numbers of equipment. Also indicate if pole will be replaced (with existing and proposed heights) or if any existing road signage is proposed to be relocated or removed.		
3	Cover Sheet Provide information in a checklist format to ensure conformance by installers.		
4	Site Plan Show location of the proposed pole with relation to the existing travelled way, property lines, sidewalks, structures within 20' of the pole, and other surface equipment/facilities.		
5	Site Plan Show location of any new vaults proposed.		
6	Elevation Sheet Show location of any warning stickers. RF warning sticker shall be facing out to street and near antenna, or away from street and near antenna if no window within 50 feet.		
7	Elevation Sheet Indicate height to top of pole, antenna, top and bottom of equipment enclosures.		
8	Elevation Sheet Show any street signage that will be placed on the pole, and that is used to screen small cell equipment. Ensure signage and equipment are shown to scale. Relocated signage shall be placed at an elevation that is consistent with the original height of the signs.		
9	Elevation Sheet Show equipment stacked together as close as possible while complying with airflow requirements.		
10	Elevation Sheet Ensure other elements (e.g. NEMA, PBX or J boxes), ground bus bars, and base plate mounts are shown, if utilized.		
11	Elevation Sheet Clearly show offset (distance) of equipment cabinets from pole, including the maximum offset from the pole to the outermost edge of facilities.		
12	Photo Simulations Show equipment sizes, enclosures, signs and offsets correctly.		
13	Photo Simulations Show RF warning stickers, if visible from given perspectives.		
14	Photo Simulations Use perspectives that provide a true sense of distance to nearest residential windows or primary facades of buildings, as well as scale of the facilities.		

ATTACHMENT B

Site Completion Checklist

		YES	NO
1	Spacing of Support Elements: Support equipment (e.g. Disconnect Switch and Mrrus) to be clustered (vertically) as close as technically feasible on pole.		
2	Logo Removal: All equipment logos, other than those required by regulation (e.g. node identification of shutdown signage) shall be painted over or removed. Raised/Depressed logos/text on equipment enclosures (e.g. RRUs), if present to be sanded off, or covered with a sticker, and then painted.		
3	Signage: FCC mandated RF warning signage shall face out to street when wireless facility is located in front of, or near a window. Signage shall face toward building if there are no windows present.		
4	Notification: 14 days prior to performing emissions testing, applicant shall inform residents of dwelling units within 100 feet, and offer to perform a test in their dwelling.		
5	Testing: Measure and record emissions, including EMR/RF and noise.		
6	Report: Within 30 days of activation, applicant will submit an activation report to the Public Works Department.		