

SMALL CELL WIRELESS FACILITIES IN THE PUBLIC RIGHT OF WAY

GUIDELINES FOR PERMIT SUBMITTAL

2263 Santa Clara Ave., Rm. 190 Alameda, CA 94501-4477

510.747.6800 • TDD: 510.522.7538 • alamedaca.gov

Hours: 7:30 a.m.–3:30 p.m., M–Th

These guidelines are intended to facilitate administration of a permit program for small cell wireless communications facilities within the City of Alameda's public right of way. The objective of the guidelines is to ensure that the design, operation and siting of the facilities in the public right of way will occur in a manner that protects and promotes public safety, community welfare and the aesthetic quality of the City consistent with the objectives and policies of the City of Alameda General Plan and Municipal Code as well as Public Utilities Code Sections 7901 and 7901.1. The City acknowledges that small cell wireless communications facilities are needed in order to provide robust cellular coverage and capacity throughout the City but seeks to ensure facilities do not significantly detract from City streetscapes and are reviewed for compliance with generally applicable public health and safety regulations.

Carriers and permit applicants shall comply with all applicable regulations and standards of all governmental agencies with jurisdiction over the installation and operation of wireless telecommunication facilities including, but not limited to, the Federal Communications Commissions and California Public Utilities Commission. The City of Alameda may, at any time, require applicants to provide evidence of compliance with applicable regulation.

Prerequisite: Review City Design Guidelines

Failure to comply with all applicable City standards and guidelines can cause substantial delays in the permitting process and may result in a denial of the application. In order to reduce the likelihood that an application will be deemed incomplete for processing or denied for noncompliance, the City strongly encourages that applicants carefully review the City's Wireless Communication Facilities Design Guidelines and design wireless facilities to fully comply. The City's Wireless Communication Facilities Design Guidelines are available online within the Key Documents, Guidelines section of: <https://www.alamedaca.gov/Departments/Public-Works>

Step 1. Site Location

City Poles:

City owned street light, excluding street lights designated historic monuments and traffic signal poles, are available for view at this link¹. The information provided by the City of Alameda on this site is a public resource providing a visual display of general information for your convenience. The City of Alameda makes no warranty as to the content, sequence, accuracy, timeliness or completeness of any of the information provided on this site. All information contained therein should be verified before relying on its accuracy. The City of Alameda expressly disclaims any representations and warranties, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose. The City of Alameda shall assume no liability for any errors, omissions or inaccuracies in the information provided, regardless of how caused; or any decision made or action taken or not taken by user in reliance upon any information or data furnished hereunder. Permission to use this application is expressly conditioned upon your unconditional acceptance of, and consent to, the terms of this disclaimer.

¹ <https://alamedaca.maps.arcgis.com/home/webmap/viewer.html?webmap=28cba5a91d984866b6793b9657b94329>

Utility Poles:

For utility poles, the majority of Alameda Municipal Power (AMP) electric distribution poles are jointly owned with an incumbent telephone company (AT&T). In addition to the process contained herein, the Applicant shall make application to, receive authorization from, and comply with all joint owners' requirements pertaining to the installation of their facilities. Third party use of jointly owned poles requires the consent of all joint owners.

Step 2. Getting Power to Site

Applicant must separately arrange for electrical service through AMP. Small cell equipment will be served by a separate electric service (e.g. equipment cannot be powered from a streetlight photocell adapter). To avoid meter pedestals or meter equipment on poles, service through AMP will be a non-metered service. Power usage will be estimated based on nameplate rating of all equipment and the monthly charges computed based on the applicable rate schedule.

To obtain electrical service, Applicant must complete a Service Planning Form for Small Cell Pole Attachments available as **Attachment D** and online at www.alamedamp.com/es-planning.

Applicant must comply with all AMP Engineering Department service requirements noted during plan review.

Step 3. Wireless Facility Encroachment Permit Application

Applicant shall submit Wireless Facility Encroachment Permit applications to the Permit Counter located in Room 190 at 2263 Santa Clara Ave. Applications must be submitted in person at a previously scheduled appointment time with the Public Works representative stationed at the Permit Counter. To schedule this appointment contact 510-747-7900. The application submittal shall include the following material:

- For equipment on a City owned asset: The pole identification number and proof of proprietary approval for siting of personal wireless service facilities on City owned asset (fully executed Master License Agreement or Memorandum of Master License Agreement).
- Photo Simulation and Engineering/Construction Drawings: The submittal shall identify all facility related support and protection measures to be installed. This includes, but is not limited to, the location(s), dimensions and method of placement, support, protection, screening, paint and/or other treatments of the antennas and other appurtenances to ensure public safety and compatibility with the neighborhood character. If project includes any excavation, the site plan must show the location and depth of all utilities in the project vicinity. **Attachment A** contains a checklist of information to include on the Photo Simulations and Engineering/Construction Drawings Plans. Permittee must complete and include **Attachment A** with the permit submittal.
- Acoustic analysis or manufacturer's specifications for equipment that emits noise to evaluate compliance with local noise regulations.
- Statement of purpose or technical objectives to assist the City in evaluating whether a more preferred alternative location would be technically feasible.
- Alternative sites analysis the shows the search ring for the project, all locations that the applicant evaluated for the project, and the reason(s) the applicant deemed the alternative

viable or non-viable.

- A Pole Loading Analysis prepared by a Registered Professional Engineer shall demonstrate the structural integrity of the pole load of the pole-mounted equipment (for existing or replacement pole, if being proposed).
- A completed copy of the FCC form "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance: Appendix A" titled "Optional Checklist for Determination Of Whether a Facility is Categorically Excluded" for each frequency band of RF emissions to be transmitted from the proposed Facility upon the approval of the application. All planned radio frequency emissions on all frequency bands must be shown on the Appendix A form(s) attached to the application. All planned radio frequency emissions are to be entered on each Appendix A form only in wattage units of "effective radiated power." A blank copy of form is included in **Attachment B**.
- Pre-Installation Radio Frequency Emissions Report, requirements for report are listed in **Attachment C**. Permittee shall also sign and return **Attachment C** as part of the permit submittal.
- Proof of the applicant's Certificate of Public Convenience and Necessity (CPCN) or Wireless Identification Registration (WIR) from the California Public Utility Commission (CPUC).
- Traffic Control Plan(s), per Caltrans standard.
- Proof of Insurance, as specified in the application, unless insurance is on file with the City per a Master License Agreement.
- Number of Copies: (4) copies of the Right of Way application, (1) copy of insurance paperwork, (2) copies of any structural calculations, (4) sets of any plan drawings.

Step 4. Construction Inspection

All construction in the public right-of-way must be inspected by the Public Works Department, as detailed in the Right of Way conditions of approval. Inspections must be scheduled with the Public Works Construction Inspection Office at 510-747-7930 at least 48 hours prior to the requested inspection time.

ATTACHMENT A

Photo Simulations and Engineering/ Construction Drawings Plans

Information to be shown on Plans and Simulations to ensure clarity. Both Existing and Proposed drawings are required.

	Permitee to Check if Included	City to Confirm if Included
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) and/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 and dimensions of all new equipment and wiring.		
5 Elevation Sheet Show location of any warning stickers. RF warning sticker shall be facing out to street and near antenna.		
6 Elevation Sheet Indicate height to top of pole, antenna, and top and bottom of equipment enclosures.		
8 Elevation Sheet Show equipment enclosures stacked together as close as possible while complying with GO 95 and airflow requirements.		
9 Elevation Sheet Clearly show offset (distance) of equipment cabinets from pole.		
10 Photo Simulations Show equipment sizes, cabling and offsets (cabinets from pole).		
11 Photo Simulations Show RF warning stickers if visible from given perspectives.		
12 Photo Simulations Use perspectives that provide a true sense of distance to nearest residential windows or primary facades of buildings.		
13 Photo Simulations Show new (straight/upright) pole if existing (leaning) pole is to be replaced.		

ATTACHMENT C

Pre-Installation Radio Frequency Emissions Report Requirements

This report must be submitted by Permittee as part of the Wireless Facility Encroachment Permit application. The requirements for this report are listed below.

1. The location, identity and total number of all operational radiating antennas to be installed at the site.
2. List all radiating antennas located within 100 feet of the site which could contribute to the cumulative radio frequency energy at this location.
3. Provide a narrative description of the proposed work for this project. The description should be consistent with scope of work for the final installation drawings.
4. Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed. The antenna inventory should also include the proposed installation height above the nearest walking/working surface as well as the height above ground level. Also include the orientations of the antennas.
5. Describe the existing radio frequency energy environment at the nearest walking/working surface to the antennas and at ground level. This description may be based on field measurements or calculations. Please include a description of any assumptions made when doing the calculations.
6. Provide the maximum effective radiated power per sector for the proposed installation. The power should be reported in Watts and reported both as a total and broken down by the frequency band width (i.e. PCS, AWS, Cellular, etc...)
7. Based on the antenna orientation, describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area. Include the address of the building or structure and the maximum predicted amount of radio frequency energy both as a percent of the FCC standard and in mW/cm². Include a description of any assumptions made when doing these calculations.
8. Report the estimated cumulative radio frequency fields for the proposed site at ground level. State the percentage of the FCC standard utilized and power density exposure level in mW/cm².
9. Provide the maximum distance (in feet) the three dimensional perimeter of the radio frequency energy level equal to the public and occupational exposure limit is calculated to extend from the face of the antennas. Indicate if this will include any walking/working surfaces or if it extends only into free space.
10. Provide a description of whether or not the public has access to the antennas. Describe any existing or proposed warning signs, barricades, barriers, rooftop striping or other safety precautions for people nearing the equipment as may be required by any applicable FCC- adopted standards. At a minimum, signs should be provided in English, Spanish and Chinese.
11. Statement whether the personal wireless service facilities to be installed as part of this permit are compliant with FCC regulations concerning radio frequency emissions.
12. Statement on who produced this report and qualifications. Report must be signed off by a engineer expert in the field of radio frequency emissions. Typically, this is a licensed electrical engineer.
13. Permittee affirms, under penalty of perjury, having read and assents to the foregoing requirements and that the proposed installation will be FCC compliant, in that it will not cause members of the general public to be exposed to RF levels that exceed the MPE levels deemed safe by the FCC.

[Signature(s) to follow.]

By:
DATE:_____

Authorized Agent of Permittee

PRINT NAME

FCC/LSGAC

Local Official's Guide to RF

APPENDIX A

***Optional Checklist for Determination
Of Whether a Facility is Categorically Excluded***

**Optional Checklist for Local Government
To Determine Whether a Facility is Categorically Excluded**

Purpose: The FCC has determined that many wireless facilities are unlikely to cause human exposures in excess of RF exposure guidelines. Operators of those facilities are exempt from routinely having to determine their compliance. These facilities are termed "categorically excluded." Section 1.1307(b)(1) of the Commission's rules defines those categorically excluded facilities. This checklist will assist state and local government agencies in identifying those wireless facilities that are categorically excluded, and thus are highly unlikely to cause exposure in excess of the FCC's guidelines. Provision of the information identified on this checklist may also assist FCC staff in evaluating any inquiry regarding a facility's compliance with the RF exposure guidelines.

BACKGROUND INFORMATION

1. Facility Operator's Legal Name: _____
2. Facility Operator's Mailing Address: _____
3. Facility Operator's Contact Name/Title: _____
4. Facility Operator's Office Telephone: _____
5. Facility Operator's Fax: _____
6. Facility Name: _____
7. Facility Address: _____
8. Facility City/Community: _____
9. Facility State and Zip Code: _____
10. Latitude: _____
11. Longitude: _____

continue
→

Optional Local Government Checklist (page 2)

EVALUATION OF CATEGORICAL EXCLUSION

12. Licensed Radio Service (see attached Table 1): _____
13. Structure Type (free-standing or building/roof-mounted): _____
14. Antenna Type [omnidirectional or directional (includes sectored)]: _____
15. Height above ground of the lowest point of the antenna (in meters): _____
16. ☐ Check if all of the following are true:
- (a) This facility will be operated in the Multipoint Distribution Service, Paging and Radiotelephone Service, Cellular Radiotelephone Service, Narrowband or Broadband Personal Communications Service, Private Land Mobile Radio Services Paging Operations, Private Land Mobile Radio Service Specialized Mobile Radio, Local Multipoint Distribution Service, or service regulated under Part 74, Subpart I (see question 12).
 - (b) This facility will not be mounted on a building (see question 13).
 - (c) The lowest point of the antenna will be at least 10 meters above the ground (see question 15).

If box 16 is checked, this facility is categorically excluded and is unlikely to cause exposure in excess of the FCC's guidelines. The remainder of the checklist need not be completed. If box 16 is not checked, continue to question 17.

17. Enter the power threshold for categorical exclusion for this service from the attached Table 1 in watts ERP or EIRP* (note: $EIRP = (1.64) \times ERP$): _____
18. Enter the total number of channels if this will be an omnidirectional antenna, or the maximum number of channels in any sector if this will be a sectored antenna: _____
19. Enter the ERP or EIRP per channel (using the same units as in question 17): _____
20. Multiply answer 18 by answer 19: _____
21. Is the answer to question 20 less than or equal to the value from question 17 (yes or no)? _____

If the answer to question 21 is YES, this facility is categorically excluded. It is unlikely to cause exposure in excess of the FCC's guidelines.

If the answer to question 21 is NO, this facility is not categorically excluded. Further investigation may be appropriate to verify whether the facility may cause exposure in excess of the FCC's guidelines.

*"ERP" means "effective radiated power" and "EIRP" means "effective isotropic radiated power"

TABLE 1: TRANSMITTERS, FACILITIES AND OPERATIONS SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Experimental Radio Services (part 5)	power > 100 W ERP (164 W EIRP)
Multipoint Distribution Service (subpart K of part 21)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1640 W EIRP <u>building-mounted antennas</u> : power > 1640 W EIRP
Paging and Radiotelephone Service (subpart E of part 22)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u> : power > 1000 W ERP (1640 W EIRP)
Cellular Radiotelephone Service (subpart H of part 22)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u> : total power of all channels > 1000 W ERP (1640 W EIRP)

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Personal Communications Services (part 24)	<p>(1) Narrowband PCS (subpart D): <u>non-building-mounted antennas</u>: height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u>: total power of all channels > 1000 W ERP (1640 W EIRP)</p> <p>(2) Broadband PCS (subpart E): <u>non-building-mounted antennas</u>: height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 2000 W ERP (3280 W EIRP) <u>building-mounted antennas</u>: total power of all channels > 2000 W ERP (3280 W EIRP)</p>
Satellite Communications (part 25)	all included
General Wireless Communications Service (part 26)	total power of all channels > 1640 W EIRP
Wireless Communications Service (part 27)	total power of all channels > 1640 W EIRP
Radio Broadcast Services (part 73)	all included

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Experimental, auxiliary, and special broadcast and other program distributional services (part 74)	subparts A, G, L: power > 100 W ERP subpart I: <u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1640 W EIRP <u>building-mounted antennas</u> : power > 1640 W EIRP
Stations in the Maritime Services (part 80)	ship earth stations only
Private Land Mobile Radio Services Paging Operations (part 90)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u> : power > 1000 W ERP (1640 W EIRP)
Private Land Mobile Radio Services Specialized Mobile Radio (part 90)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u> : total power of all channels > 1000 W ERP (1640 W EIRP)

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Amateur Radio Service (part 97)	transmitter output power > levels specified in § 97.13(c)(1) of this chapter
Local Multipoint Distribution Service (subpart L of part 101)	<p><u>non-building-mounted antennas</u>: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP</p> <p><u>building-mounted antennas</u>: power > 1640 W EIRP</p> <p>LMDS licensees are required to attach a label to subscriber transceiver antennas that: (1) provides adequate notice regarding potential radiofrequency safety hazards, <i>e.g.</i>, information regarding the safe minimum separation distance required between users and transceiver antennas; and (2) references the applicable FCC-adopted limits for radiofrequency exposure specified in § 1.1310 of this chapter.</p>

ELECTRIC SERVICE PLANNING INFORMATION FORM

<http://www.alamedamp.com/working-with-amp>

SMALL CELL POLE ATTACHMENTS



**ALAMEDA
MUNICIPAL POWER**

A Department of the City of Alameda

THIS FORM MUST BE FILLED OUT COMPLETELY BEFORE IT CAN BE PROCESSED. SHADED AREAS ARE FOR AMP USE ONLY.

This form will be sent back to the applicant after review.

- This application is for a preliminary engineering review of the proposed work and is recommended before applying for a permit.
- Submit this form to the AMP Engineering Office located at 2000 Grand Street, Alameda, CA 94501
- For questions call the AMP Engineering main line at (510) 814--5676.

AMP – JOB NUMBER:			Date:
Name of Applicant / Company:			Tel:
Address:	City / State:	Zip:	Email:
BILLING INFORMATION			
Name:			Tel:
Address:	City / State:	Zip:	Email:

TYPE of POLE (check appropriate box)		<input type="checkbox"/> Streetlight		<input type="checkbox"/> Utility Pole	
Physical Street Address:					
Coordinates:	Latitude:		Longitude:		
AMP Pole# (If known):		Comments:			

*****Attach a sketch/map (and a photograph) showing the pole location and proposed service connections. *****

Brief Description of Work:	

Proposed Equipment					
Qty	Description	Manufacturer	Model Number	Dimension (H x W x D)	Weight

Total Equipment Load: *Attach manufacturer cut sheets showing maximum AC wattage of ALL equipment associated with this request*					
Unit	Description	Max Power (W)	Max Current (A)	kVA	KWh/Year

I understand and acknowledge that AMP will review the proposed new service based on the load and equipment specifications I provide on this Service Application. AMP will need to reevaluate the application should the information change at a later date and I may be required to submit a new application.

Applicant Name:	Signature:	Date:

[illegible]

Alameda Municipal Power Requirements for Small Cell Attachments

A. Purpose and Applicability

Below are Alameda Municipal Power's requirements for locating small cell antennas and equipment. These requirements augment and enhance the guidelines provided in the *City of Alameda Wireless Communication Facilities Design Guidelines*.

For utility poles, the majority of Alameda Municipal Power electric distribution poles are jointly owned with an incumbent telephone company (AT&T). In addition to the process contained herein, the Applicant shall make application to, receive authorization from, and comply with all joint owners' requirements pertaining to the installation of their facilities. Third Party use of jointly owned poles requires the consent of all joint owners. Alameda Municipal Power may not unilaterally authorize the use of a jointly owned pole.

The Applicant is solely responsible for obtaining any and all consents, permits, licenses or grants necessary for making attachments to the selected poles.

B. General

1. Small cell attachments will be permitted on City owned streetlight poles, traffic signal poles, city owned buildings/roof tops, and in the communications space of utility poles.
2. The City's first preference to locate small cells will be on city owned non decorative street light poles, traffic signal poles or on city owned buildings/roof tops.
3. The Applicant is responsible for obtaining power through Alameda Municipal Power.
4. Service through Alameda Municipal Power will be a non-metered service. Power usage will be estimated based on nameplate rating of all equipment and the monthly charges computed based on the applicable rate schedule.

C. Electrical Requirements

1. Applicants must provide a separate electric line to be run to their equipment. Power for equipment located on streetlights cannot use the power to the luminaire as a source of power.
2. Equipment must be properly grounded in accordance with Alameda Municipal Power requirements and General Order 95. Applicants may not bond to Alameda Municipal Power's ground wire.
3. Applicants will be responsible for installing all necessary substructure and service cables from an AMP designated service point.
4. All small cell installations must be equipped with an appropriate visible disconnect means (switch) that is clearly identified and is accessible to Alameda Municipal Power personnel.

D. Utility Poles

1. Applicant is required to obtain Northern California Joint Pole Association approval as may be required.
2. Applicant shall provide pole loading calculations with the equipment to be installed.
3. Utility pole installations must use all design techniques to minimize visual impacts including consolidating equipment on the pole to reduce the visual clutter.
4. No attachments or antennas are allowed above the communications space of the utility pole.
5. No attachments allowed on poles with primary power risers.

Alameda Municipal Power Requirements for Small Cell Attachments

6. No attachments allowed on transmission poles.
7. No attachments allowed on poles with special equipment (primary cut outs, capacitor banks, manual disconnect arms, any utility company RF antennas, other wireless carrier equipment, Comcast equipment). Poles with secondary risers or transformers may be used as long as there is space for the equipment AND climbing space on the pole.
8. Attachments may not interfere with the proper operation of other attachments on the utility pole. Blocking light from streetlights, acting as an obstruction to maintenance activities, and causing voltage fluctuations in the distribution system are examples of such interferences.
9. All antenna installations shall be consistent with General Order 95, "Rules for Overhead Electric Line Construction," of the California Public Utilities Commission, and all other applicable Federal, State, and local orders, codes, rules, and regulations. Including:
 - Climbing space
 - Clearances between power and/or other attachments
 - Required distances for separation between pole and equipment
 - Required distances for separation between equipment
10. No ground mounted enclosures, including backup power supply, shall be allowed. All equipment located within the public ROW shall be located such that it meets ADA requirements and does not obstruct, impede, or hinder usual pedestrian or vehicular travel.
11. Locating small cell equipment on backyard utility poles is prohibited.
12. Locating small cell equipment on utility poles located directly on a street corner is to be avoided.
13. All carrier equipment shall be removed and relocated at no cost to the city of Alameda or Alameda Municipal Power should Alameda Municipal Power decide to underground the utility lines in the future. The equipment must be removed within six months of the Underground District being established or when notified by AMP Engineering.