Crown Castle
695 River Oaks Parkway
San Jose, CA 95134

March 29, 2019

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

RE: Small Wireless Facilities – Proposed Guidelines in the City of Alameda, CA (the "City")

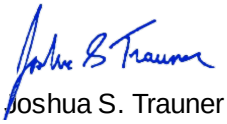
Dear Sir or Madam:

We submit the following on behalf of Crown Castle Fiber LLC and its affiliated entities (together, "Crown Castle") in response to the City's proposed regulations regarding Small Wireless Facilities in the City's rights-of-way.

As more fully set forth in the attached mark-ups, the City's proposed guidelines conflict with federal and California laws in important ways. The following summarizes several key issues addressed on a section-by-section basis in the mark-up. First, the requirements are discriminatory. The City does not impose such burdensome and extensive limits and regulations on other right of way deployments in the City. There are widespread telecommunications deployments on poles in the right of way that are not subject to the same limitations the City seeks to impose on wireless. Second, the standards are not objective. The Federal Communications Commission ("FCC") in its September 2018 Declaratory Ruling (FCC 18-133) made clear that for aesthetic regulation of small wireless facilities to be lawful they must be objective. The documents proposed by the City are wholly discretionary, with many undefined subjective "standards" that would allow the City to deny installations in any particular location based on subjective un-defined grounds. Finally, the proposal seeks to limit wireless to particular areas of the City and even seeks to exclude wireless from residential areas as much as possible. The FCC made clear that local governments cannot dictate the design of telecommunications networks, and moreover, such limits are unlawfully discriminatory. Essentially, such regulations give providers that provide telecommunications services via one technology (wires) a regulatory competitive advantage over entities that use wireless technology. This discrimination violates both federal and California laws.

We hope the City will take some time to reconsider its proposal and revise it to be in accordance with both State and federal law. We are available should the City need advice and suggestions on how to best accomplish this goal. Please feel free to contact us at your convenience.

Sincerely,
CROWN CASTLE FIBER LLC



Joshua S. Trauner
Senior Government Relations Counsel

WIRELESS COMMUNICATION FACILITIES
DESIGN GUIDELINES

Planning, Building, and Transportation Department
2263 Santa Clara Ave., Rm. 190 Alameda, CA 94501-4477
510.747.6805 • TDD: 510.522.7538 • alamedaca.gov
Hours: 7:30 a.m.–3:30 p.m., M–Th

A. Purpose and Applicability. The purpose of these Wireless Communication Facilities (WCF) Design Guidelines are to assist applicants with preparing design plans for the deployment of WCF in the City of Alameda. The guidelines govern all WCF deployment on private property and in the public right-of-way. These guidelines will be used to evaluate permit applications for all WCF, and these guidelines may be updated periodically by the Planning, Building, and Transportation Department to address the needs with fast-evolving technology.

B. Goals. The City of Alameda seeks to balance the importance of providing good and reliable wireless coverage and capacity with installations that do not significantly impact neighborhood character or detract from Alameda's unique and historic streetscapes. The design guidelines support the following goals:

1. Facilitate the buildout of a wireless telecommunications network that provides high speed telecommunications service to the entire Alameda community.

2. Ensure wireless facilities be aesthetically compatible with its immediate surroundings by concealing all components in existing structures, or otherwise apply stealth, camouflage, and screening techniques to hide or blend them into the environment.

3. Avoid wireless facility installations that would materially impair the character of historic/architecturally significant buildings or otherwise would substantially obstruct significant views (e.g., locations that have clear views of local landmarks or the San Francisco Bay.)

C. Location Preferences. The City of Alameda has established the following location preferences for WCF site selection in order to mitigate against adverse visual, noise and aesthetic impacts. These parameters are listed in the order of preference:

1. Co-location on existing towers, facilities and sites.

2. Property owned by the City of Alameda.

3. Public right-of-way.

4. Non-residential areas.

5. Residential areas - Siting within residential zones is discouraged unless supported by a wireless coverage analysis documenting that no alternate site can feasibly close a significant gap in wireless coverage of the project applicant using any less intrusive means to close that gap from any other location. New macro tower facilities are strongly discouraged in residential areas.

D. Design Guidelines.

1. Universal Guidelines for All WCF:

a. Least Intrusive Means. WCF shall utilize the smallest, least visually intrusive antennas, components, and other necessary equipment.

b. Minimize all Visual Impacts: Design all wireless facilities with the goal of minimizing its visual impact to the surrounding environment. At the earliest stages of site selection and equipment planning, think about the most appropriate design that would allow for the optimal integration of the new installation with existing environment, with specific attention to possible visual synergies with architecture and landscape nearby. All wireless communications facilities shall be designed, screened and/or camouflaged to the greatest extent possible so as not to create substantial visual, noise, or aesthetic impacts.

c. Use of Landscaping. When facilities are located in areas with substantial existing vegetation, place the installation where it can maximize usage of the existing landscape for visual screening. Use landscaping to

screen, buffer, and blend wireless facilities into the surrounding environment. When new landscaping is incorporated into the design, the landscaping must appear as natural features found in the immediate area so as to be unnoticeable (camouflaged facilities). Any new landscaping, including irrigation, shall be installed and maintained by the applicant, as long as the permit is in effect.

d. Paint and Finish. All equipment, antennas, poles, cables, hardware, and towers shall have a non-reflective finish and shall be painted or otherwise treated to minimize visual and aesthetic impacts.

e. Security. All wireless communications facilities shall provide sufficient security measures and anti-climbing measures in the design of the facility to reduce the potential for damage, theft, trespass, and injury.

f. Interference. All WCF shall be designed, located and operated to avoid interference with the quiet enjoyment of the surrounding area or neighborhood, including interference from adverse visual, noise and aesthetic impacts, and at a minimum shall be subject to the City-adopted noise standards contained in AMC Section 4-10. *Noise Regulations*.

g. Signage and Decals. No advertising or signs, other than necessary provider identification signs and warning signs, shall be allowed on or at the location of a wireless communications facility. Radio-frequency (RF) warning labels, Node ID stickers, and other required identification labels should be the smallest possible and lowest visibility. Consider placing these labels on the underside of the equipment enclosure, for example, so it is only visible to the person standing up close. Remove or paint over colored equipment manufacturer decals and logos not required by government regulation.

h. Noise from Ventilation. In areas close to residences or windows use a passive cooling system. In the event that a fan is needed, consider using enclosures with sufficient space to allow for additional airflow and a different cooling fan with a lower noise profile. In some instances, a larger fan often may have a lower noise profile, due to fewer revolutions per minute.

i. Detailed Plans. Ensure plans ~~and photo simulations~~ submitted for City plan review accurately show smaller equipment items such as duplexers, ground buss bars, PBX or J-Boxes. Hide these elements in locations such as behind equipment enclosures, or in mounting arms which feature recessed areas.

2. Additional Guidelines for Building-Mounted Equipment. In addition to the Universal Guidelines above, WCF mounted on or attached to existing or proposed buildings should adhere to the following:

a. Plan and design building-mounted antennas and any ancillary equipment to be in scale and architecturally integrated with the building design in such a manner as to be visually unobtrusive and to mitigate adverse aesthetic impacts. Screening may include designs such as locating the facility within attics, steeples, towers, behind and below parapets, or concealed within a new architectural addition to a building or structure which is architecturally compatible with the building. When new architectural additions are proposed, they must adhere to the City's Design Review Manual and are subject to the Design Review process under AMC Section 30-37.

b. Avoid placing equipment on the primary or public-facing façade of the building.

c. New architectural features such as columns, pilasters, corbels, or other ornamentation that conceal antennas may be used only if such features are native to the architectural style of the existing building.

d. Façade mounted antennas attached to existing structures must consider the scale, symmetry, and design of the structure and minimize the addition of bulk and clutter to a building. Do not interrupt the architectural lines or decorative patterns of the building.

e. Paint or otherwise treat/texture antennas or other equipment that are mounted directly against a building wall to match the adjacent building surfaces.

f. Place all roof-mounted equipment and antennas a minimum of five-feet (5') from the edge of the building.

g. Do not allow exposed cabling or exposed mounting apparatus on a building façade without the associated antennas.

3. <u>Additional Guidelines for Vertical Installations</u>. In addition to the Universal Guidelines above, this section addresses vertical installations including streetlights, utility poles, and other pole-mounted facilities such as faux trees and athletic field lights.

a. Consider the use of equipment enclosures that are nearly the same width as the pole, even if they need to be slightly longer as a result. Narrow enclosures are less likely to impair views of buildings and scenic resources or to detract from streetscapes. Utilize equipment mounting base plates that are no wider than the pole.

b. Typically, the wide variation in enclosure surface materials and sizes on a single pole can draw more attention (clutter compared to mass) to the facility than a system of enclosures that is comparatively larger, but more uniform in profile and longer instead of wider or deeper.

c. Design vertical structures and poles to the minimum height necessary.

d. Antennas mounted on such structures as light standards should be placed on the structure in a way to minimize visibility, and be painted to blend into the structure.

e. For new poles, incorporate any cabling and conduits into the pole itself. On existing poles, use shrouds, risers or conduit, to reduce the appearance of cluttered or tangled cabling. In some instances, installation practices such as using equipment enclosures with specific port locations, or crossing wires below a down-facing port on an equipment enclosure, can reduce the likelihood that cabling will appear cluttered or bend outward from the pole and further away from the enclosure.

f. **Distributed Antenna Systems (DAS) or Small Cells:**

1) Limit installation to one radome antenna at the top of the light standard with one equipment cabinet mounted directly on the pole. All antennas shall be concealed inside the radome with a diameter similar to the pole itself, but in no case should the radome be more than eighteen (18") inches in diameter.

2) When mounted on street lights, the antennas/radome enclosures should be mounted above the light source, but the antenna/radome should extend no higher than four (4) feet above the height of the existing pole.

3) Design all equipment to be internally enclosed within the pole or caisson to minimize external pole-mounted equipment. If this is not feasible, equipment should be minimally visible through the use of an underground vault (evaluated on a case by case basis). Above-ground cabinets not attached to a pole are prohibited.

4) Mount equipment cabinets directly behind any road signs located on a pole, if possible.

5) Minimum height clearance regulations shall be observed by all components of the installation.

6) All cables shall be concealed within a sleeve between the bottom of the antenna and the mounting bracket. All cables and conduit to and from the light standard is expected to be routed from underneath the caisson.

7) Stack equipment close together and on the same side of the pole. If a long rectangular disconnect switch is used, rotate the enclosure so the elements can be stacked closer together on the pole. Utilize brackets that allow antennas to be mounted no more than 4" from the pole except for utility poles which must comply with California Public Utilities General Order 95 (2' from pole).

8) All replacement or new poles must comply with all applicable City regulations and policies. The new or replacement poles must match design, height, color and material of the original or adjacent poles.

9) Decorative/historic-themed light poles in Alameda have historical significance and must be avoided.

10) All disturbed landscape shall be replaced in-kind and areas of bare or disturbed soil must be revegetated in accordance with City landscape requirements.

11) All Attachments on utility poles must meet requirements in California Public Utilities General Order 95.

12) On jointly owned public utility poles, the installation must occur below the section of pole supporting Alameda Municipal Power overhead electric lines.

13) Electrical power must be arranged through a service agreement with the City's electric utility service provider Alameda Municipal Power. Service through AMP will be non-metered service.

g. **Athletic Field Lights (AFL):**

1) Mount antennas as close as possible to the pole without obstructing the light source and within a radome no more than thirty-six (36") inches in diameter. Provide covers on the underside of the radome enclosure.

2) For existing AFL with exposed antennas, route all cables directly into port holes no more than 12 inches of exposed conduit (evaluated on a case by case basis).

3) Apply chin covers to conceal any excess cables that hang above or below the antennas. Chin covers shall match the exact antennas dimensions and profile, and be painted and textured to match the antenna's exterior finish.

4) Paint antennas and mounting apparatus the same color as the pole.

5) All cables and conduit to and from the light standard are expected to be routed from underneath the caisson up into the pole. Where that is not feasible on an existing pole, cable coverings may be allowed on the exterior where they are painted to match and minimally visible (evaluated on a case-by-case basis).

h. **Faux Trees:**

1) Only use faux trees in an existing landscape setting with trees of a similar height and species.

2) If the site is void of tall trees or landscape, create a landscape setting that integrates the faux tree with additional live planting of a similar tree species and varying heights.

3) Faux trees in non-urban settings should be species regionally appropriate to the San Francisco Bay Area that blends with established plant communities.

4) Utilize faux trees that replicate the shape, structure, and color of live trees. Provide detailed specifications of the branch and leaf design on plans submitted for plan review.

5) Ensure that the top of the faux tree does not exceed allowed height on approved plans.

6) All cables must be routed directly from the ground up through the pole. Avoid the use of exterior cable coverings that may defeat the tree design.

7) Faux tree structures shall include three dimensional bark cladding from the base to the top of the 'trunk' and along all portions of each branch.

8) Design faux trees with a minimum of 3-branches per foot for full density coverage with limited spacing between the branches so that the structure appears as natural as possible. The majority of branches should be 8-foot or longer. Branches should extend beyond the length of the antenna by a minimum of 24-inches. Trees should be designed to mimic the natural appearance of their species. Branch coverage shall be dense and natural, and no portion of any antennas shall protrude beyond the branches. There should be no gaps in branch coverage.

9) Socks are mandatory for all antennas and associated components located on a faux tree. Sock design shall replicate the same visual appearance as the rest of the tree.

Small Cell Example 1 – Concrete Light Pole

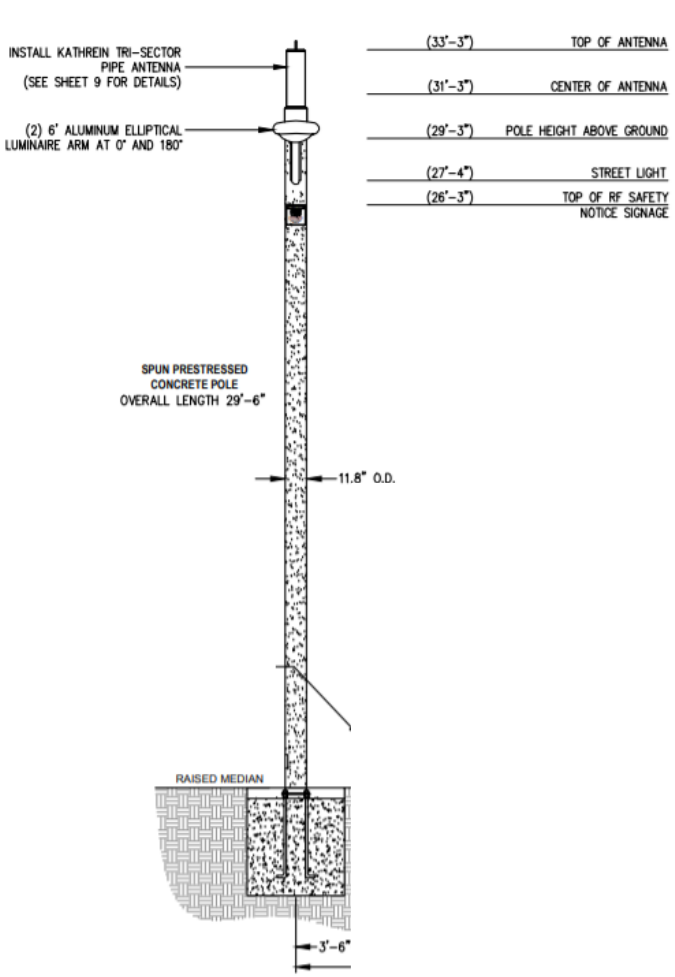
Existing

Proposed

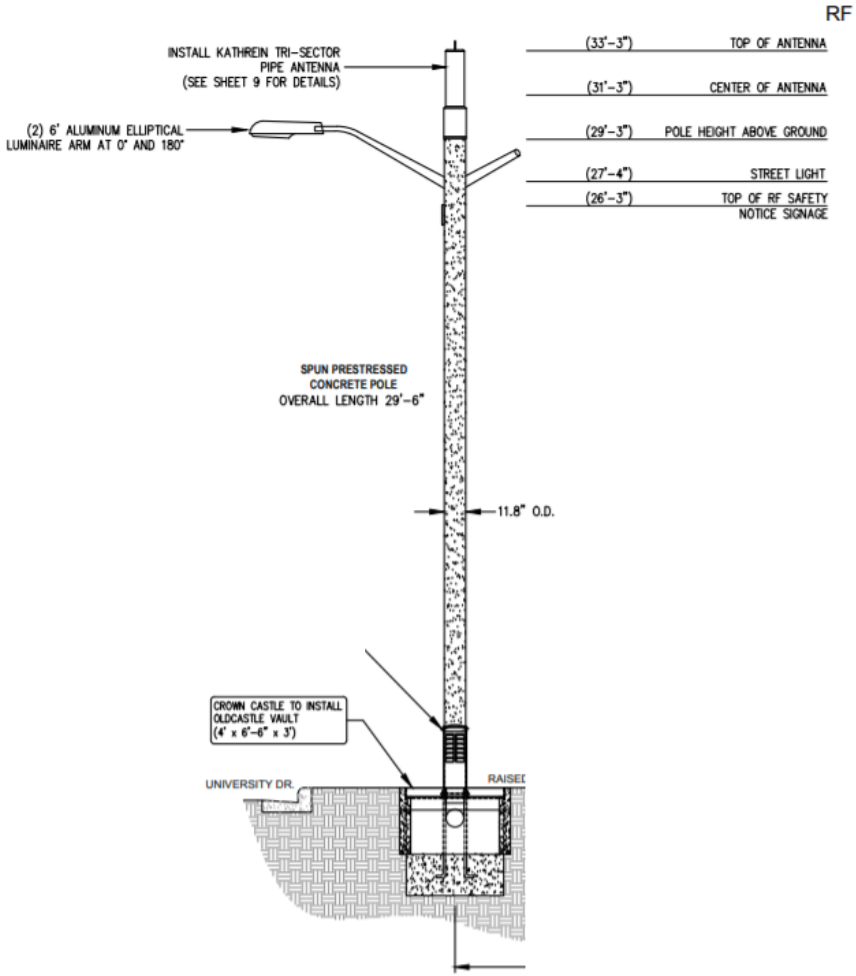
Specifications

Pole	Antenna	Lighting	Equipment Enclosure	Utilities Router
• 29’6” existing pole	• 36” pipe antenna	• 2 6’ aluminum elliptical luminaire arm	• (1) – 24”L x 21”W x 8” H concealed pad	• Power and fiber utilities routed underground

Small Cell Example 1 – Concrete Light Pole



FRONT VIEW
LOOKING NORTH
SACLE: NTS



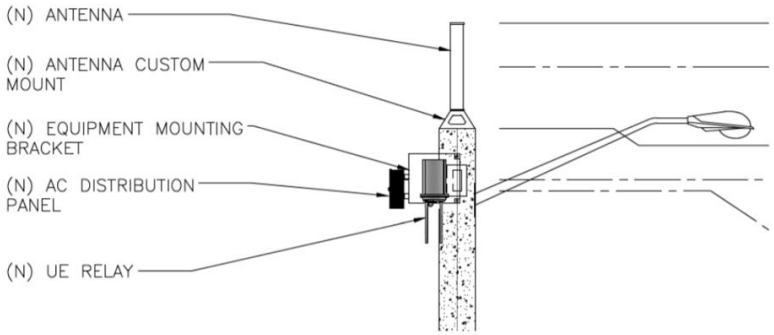
SIDE VIEW
LOOKING WEST
SCALE: NTS

Small Cell Example 2

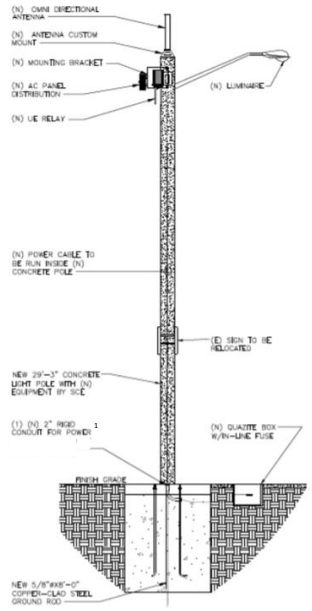
Proposed

- Height: **35 IN (above pole top)**
- Antenna Height: **29.5 IN**
- Antenna Diameter: **4.5 IN**

- *no official approval yet



mobilitie



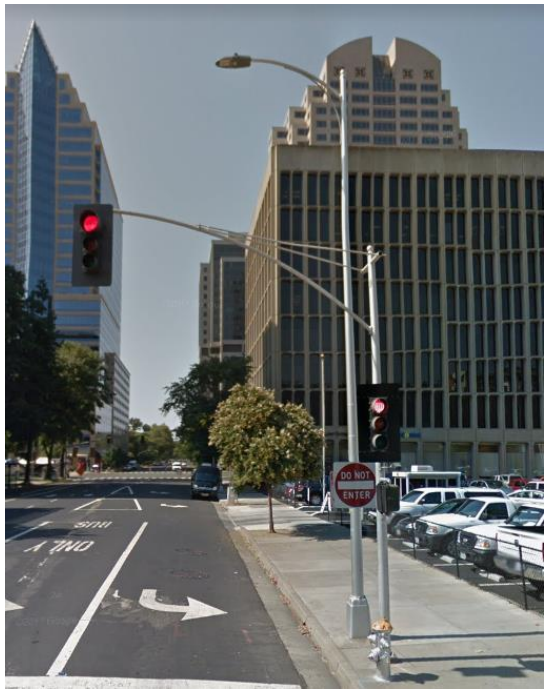
1. Applicant will be responsible for providing power cable from AMP designated splice box to the pole & equipment

Specifications

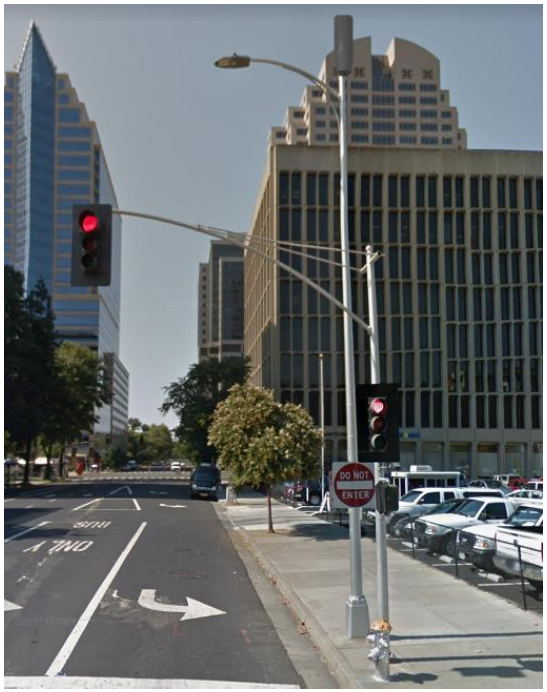
Pole	Antenna	Lighting	Equipment Enclosure	Utilities Router
• Existing pole height + 3'4" with installation	• Antenna – 29.6"H X 4.5" Ø unshrouded – custom shroud optional	• Existing luminaire	• 35"H X 15.5"W X 9"D	• Power and fiber utilities routed underground

Small Cell Example 3 – Metal Street Light Pole with Street Sign

Existing



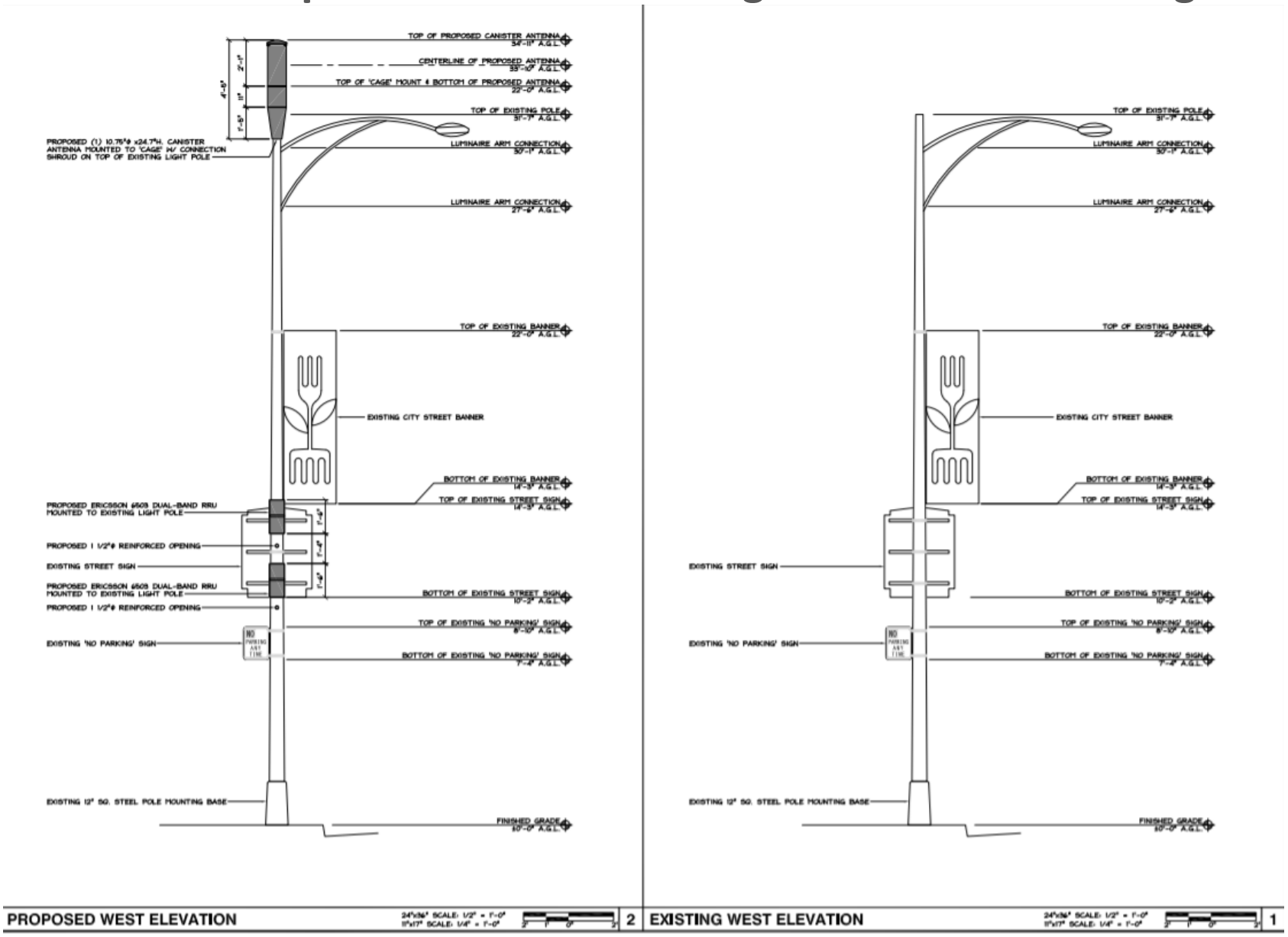
Proposed



Specifications

Pole	Antenna	Lighting	Equipment Enclosure	Utilities Router
• Existing pole height 31’7” +3’4”	• Antenna shroud – 24.7”H X 10.75” Ø	• Existing luminaire	• No equipment enclosure • (2) Dual-Band RRH mounted to existing light pole behind existing street sign	• Power and fiber utilities routed underground

Small Cell Example 3 – Metal Street Light Pole with Street Sign



Small Cell Example 4 - RRU 32 Micro Design

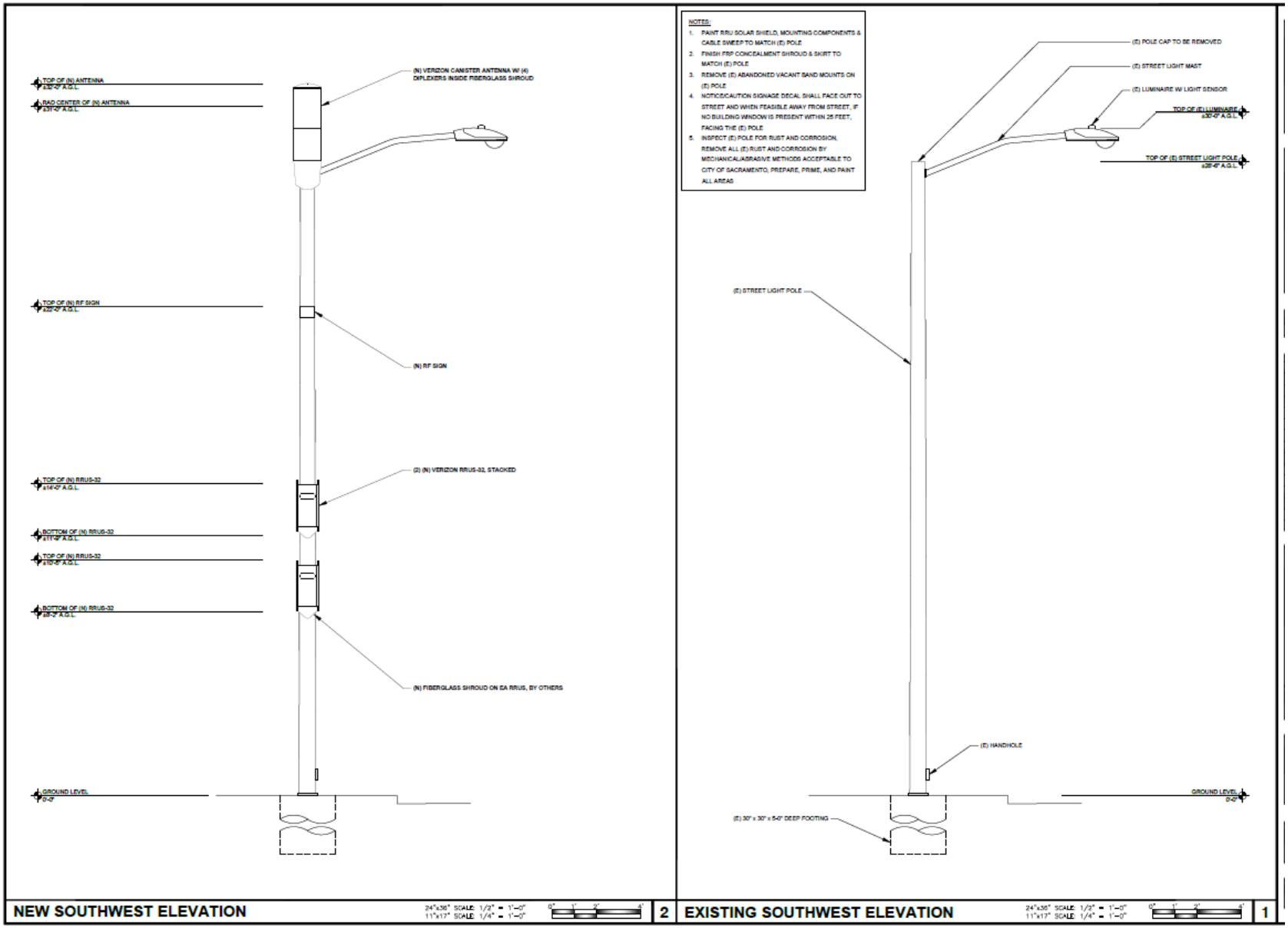
Existing

Proposed

Specifications

Pole	Antenna	Lighting	Equipment Enclosure	Utilities Router
• Existing pole height 28’6”+2’ • Pole cap to be removed	• Antenna shroud – ~4’’9.25”H X 1’2.75” Ø	• Existing luminaire with light sensor (Top height of 30’0”)	• (2) Ericsson RRUS-32 mounted on pole – 27”H x 12”W x 7” D	• Power and fiber utilities routed underground

Small Cell Example 4 - RRU 32 Micro Design



Small Cell Example 5

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 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 Public Utilities Code Sections 7901 and 7901.1. The City acknowledges the small cell wireless communication 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.

Carriers and permit applicants shall comply with 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

Wireless communications providers should review and design wireless facilities to comply with the City's Wireless Communication Facilities Design Guidelines available online at: https://www.alamedaca.gov/Departments/Planning-Building-and-Transportation/Planning-Division/New-Wireless-Facilities-Design-Guidelines

Step 1. Site Location

City Asset: The City of Alameda partners with XG Communities in the strategic development of City assets for wireless telecommunication facilities. City assets available for wireless infrastructure deployment include, but are not limited to, street light poles, traffic light infrastructure and City building rooftops. To view and reserve City assets available for small cell deployment, go to Site SeleX: www.siteselex.com.

At Site SeleX an Applicant can enter the required lease agreement with XG Communities for use of City assets. An initial reservation fee and monthly rent is required. The reservation fee includes a site validation process, yielding a complete 1A accuracy survey.

Utility Poles:

For utility poles, the applicant must make an application to the Northern California Joint Pole Association in addition to the process contained herein due to the majority of utility poles being jointly owned between Alameda Municipal Power, AT&T and Comcast. The City only allows a small cell side-arm configuration design with all small cell equipment located within the communications space of the joint pole. Applicant shall apply for and obtain an approval letter from the Northern California Joint Pole Association prior to Step 3.

Step 2. Getting Power to Site

Applicant must separately arrange for electrical service through Alameda Municipal Power. 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, Alameda Municipal Power requires unmetered service.

Applicant must complete a Service Planning Form for Small Cell Pole Attachments available as **Attachment D** and online at https://www.alamedamp.com/working-with-amp prior to Step 3. Alameda Municipal Power will perform a preliminary engineering review of the proposed location and will approve/disapprove the form and provide conditions for providing power.

The located path of power must be included in the Engineering/Construction Drawings submitted as part of the Right of Way application.

Step 3. Right of Way Permit Application

Applicant shall submit one Right of Way Permit application for each installation to the Permit Counter located in Room 190 at 2263 Santa Clara Ave. Applications must be submitted in person. The application submittal shall include the following material:

- For equipment on a City owned asset: 1-A Accuracy Certification (see Step 1)
- For equipment on a Northern California Joint Pole Association pole: Approval letter from Northern California Joint Pole Association.
- 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. The design of the facility shall demonstrate the least intrusive means for installation. If plans include 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.
- 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)
- Radio Frequency Emissions Report, requirements for report are listed in **Attachment B**
- FCC Local Gov't Checklist for Categorical Exclusions in **Attachment C**
- Applicant signed Alameda Municipal Power Billing Agreement.
- Proof of the applicant's Certificate of Public Convenience and Necessity (CPCN) from the California Public Utility Commission (CPUC).
- Traffic Control Plan(s), per Caltrans standard
- Proof of Insurance, as specified in the Right of Way application

- 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.

Step 5. Post-Construction Requirements

~~Within 10 calendar days of the installation, activation and operation of the facility, the Applicant shall measure, record and report on the emissions from the facility to the Public Works Director via the submittal of an Activation Report. The Activation Report must reference the Right of Way Permit identification number. 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. The Activation Report shall include a statement 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. As-built photographs of the completed facility shall be provided with the Activation Report. Submittal of the Activation Report is required for the permit to be "finaled."~~

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.

		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) 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, 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 cabling and equipment sizes, and offsets (cabinets from pole) correctly.		
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 B
Radio Frequency Emissions Report Requirements

A Radio Frequency Emissions report must be submitted as part of the Right of Way Permit application. The requirements for this report are listed below.

1. The location, identity and total number of all operational radiating antennas installed at this 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 on who produced this report and qualifications. Report must be signed off by a licensed engineer expert in the field of radio frequency emissions. Typically, this is a licensed electrical engineer. The engineer must be licensed in the State of California.

ATTACHMENT C
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 →

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:

- o 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).
- o This facility will not be mounted on a building (see question 13).
- o 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) X 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.

Prepared By: _____

Signature:_____ **Date:**_____

*"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)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP building-mounted antennas: power > 1640 W EIRP
Paging and Radiotelephone Service (subpart E of part 22)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1000 W ERP (1640 W EIRP) building-mounted antennas: power > 1000 W ERP (1640 W EIRP)
Cellular Radiotelephone Service (subpart H of part 22)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 1000 W ERP (1640 W EIRP) building-mounted antennas: total power of all channels > 1000 W ERP (1640 W EIRP)
Personal Communications Services (part 24)	(1)Narrowband PCS (subpart D): non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 1000 W ERP (1640 W EIRP) building-mounted antennas: total power of all channels > 1000 W ERP (1640 W EIRP) (2)Broadband PCS (subpart E): non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 2000 W ERP (3280 W EIRP) building-mounted antennas: total power of all channels > 2000 W ERP (3280 W EIRP)

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
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
Experimental, auxiliary, and special broadcast and other program distributional services (part 74)	subparts A, G, L: power > 100 W ERP subpart I: non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP building-mounted antennas: power > 1640 W EIRP
Stations in the Maritime Services (part 80)	ship earth stations only
Private Land Mobile Radio Services Paging Operations (part 90)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1000 W ERP (1640 W EIRP) building-mounted antennas: power > 1000 W ERP (1640 W EIRP)
Private Land Mobile Radio Services Specialized Mobile Radio (part 90)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 1000 W ERP (1640 W EIRP) building-mounted antennas: 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)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP building-mounted antennas: power > 1640 W EIRP LMDS licensees are required to attach a label to subscriber transceiver antennas that: (1) provides adequate notice regarding potential radiofrequency safety hazards, *e.g.,* 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.

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 required 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) [ ] Streetlight [ ] 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:

FOR AMP USE ONLY – NOTES FOR THE APPLICANT

- ***Applicant is solely responsible for obtaining any and all consents, permits, licenses or grants necessary for making attachments to the selected poles.***
- ***The selected location and installation design must comply with city guidelines.***

AMP has reviewed this application for proposed small cell attachments and:

☐ **Accepts proposed attachments and will agree to serve with the below conditions/comments.**

☐ **Rejects the proposed attachments with the below comments.**

Conditions/Comments:

Additional Sheets are Attached: ☐ Yes ☐ No

Application Reviewed by:	Phone #:	Date:

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 within or 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.