BOARD OF APPEALS, CITY & COUNTY OF SAN FRANCISCO

Appeal of
GTE MOBILNET OF CALIFORNIA LP,
Appellant(s)

vs.

SAN FRANCISCO PUBLIC WORKS
BUREAU OF STREET USE & MAPPING,
Respondent

Appeal No. **21-063**

NOTICE OF APPEAL

NOTICE IS HEREBY GIVEN THAT on July 12, 2021, the above named appellant(s) filed an appeal with the Board of Appeals of the City and County of San Francisco from the decision or order of the above named department(s), commission, or officer.

The substance or effect of the decision or order appealed from is the DENIAL on June 30, 2021, of Personal Wireless Service Facility Site Permits (Public Works denied the applications for Personal Wireless Service Facility Site Permits for the following reasons: Under Article 25 of the Public Works Code, Public Works may only issue a Personal Wireless Service Facility Site Permit for installation on an existing utility pole, not on a stand-alone pole; these applications are for stand-alone poles) at 1301 Revere Ave., 2797 Bryant St., 289 Hamilton St., 1500 Silliman St., 300 Madison St., 1900 Union St., 10 Augusta St., 18 Ceres St., 2231 22nd St., San Bruno Ave. between 3rd St/Girard St. to Campbell Ave-East Side.

APPLICATION NO. 20WR-00055, 20WR-00057, 20WR-00058, 20WR-00059, 20WR-00060, 21WR-00005, 21WR-00006, 21WR-00007, 21WR-00012, 21WR-00060

FOR HEARING ON September 1, 2021

Address of Appellant(s):	Address of Other Parties:
GTE Mobilnet of California LP, Appellant(s) c/o Melanie Sengupta, Attorney for Appellant(s) Mackenzie & Albritton LLP 155 Sansome Street, Suite 800 San Francisco, CA 94104	N/A

Date Filed: July 12, 2021

CITY & COUNTY OF SAN FRANCISCO
BOARD OF APPEALS

PRELIMINARY STATEMENT FOR APPEAL NO. 21-063

I / We, **GTE Mobilnet of California LP**, hereby appeal the following departmental action: **DENIAL** of **Personal Wireless Service Facility Site Permit Nos. 20WR-00055, 20WR-00057, 20WR-00058, 20WR-00059, 20WR-00060, 21WR-00005, 21WR-00006, 21WR-00007, 21WR-00012, 21WR-00060** by the **San Francisco Public Works, Bureau of Street Use & Mapping** which was issued or became effective on: **June 30, 2021,** for the properties located at: **1301 Revere Ave., 2797 Bryant St., 289 Hamilton St., 1500 Silliman St., 300 Madison St., 1900 Union St., 10 Augusta St., 18 Ceres St., 2231 22nd St., San Bruno Ave. between 3rd St./Girard St. to Campbell Ave-East Side**.

BRIEFING SCHEDULE:

The Appellant may, but is not required to, submit a one page (double-spaced) supplementary statement with this Preliminary Statement of Appeal. No exhibits or other submissions are allowed at this time.

Appellant's Brief is due on or before: 4:30 p.m. on **August 12, 2021**, **(no later than three Thursdays prior to the hearing date)**. The brief may be up to 12 pages in length with unlimited exhibits. It shall be double-spaced with a minimum 12-point font. An electronic copy should be emailed to: boardofappeals@sfgov.org, julie.rosenberg@sfgov.org and the other parties.

Respondent's and Other Parties' Briefs are due on or before: 4:30 p.m. on **August 26, 2021**, **(no later than one Thursday prior to hearing date)**. The brief may be up to 12 pages in length with unlimited exhibits. It shall be doubled-spaced with a minimum 12-point font. An electronic copy should be emailed to: boardofappeals@sfgov.org, julie.rosenberg@sfgov.org, m.sengupta@mallp.com and pa@mallp.com.

The Board's physical office is closed to the public and hard copies of the brief do NOT need to be submitted. **Only photographs and drawings may be submitted by the parties at the hearing.**

Hearing Date: **Wednesday, September 1, 2021, 5:00 p.m.,** via Zoom. Information for access to the hearing will be provided before the hearing date.

All parties to this appeal must adhere to the briefing schedule above, however if the hearing date is changed, the briefing schedule MAY also be changed. Written notice will be provided of any change to the briefing schedule.

In order to have their documents sent to the Board members prior to hearing, **members of the public** should email all documents of support/opposition no later than one Thursday prior to hearing date by 4:30 p.m. to boardofappeals@sfgov.org. Please note that names and contact information included in submittals from members of the public will become part of the public record. Submittals from members of the public may be made anonymously.

Please note that in addition to the parties' briefs, any materials that the Board receives relevant to this appeal, including letters of support/opposition from members of the public, are distributed to Board members prior to hearing. All such materials are available for inspection on the Board's website at www.sfgov.org/boaYou may also request a copy of the packet of materials that are provided to Board members at a cost of 10 cents per page, per S.F. Admin. Code Ch. 67.28.

The reasons for this appeal are as follows: Statement not submitted.

Filed electronically by Melanie Sengupta, Attorney for Appellant

SAN FRANCISCO PUBLIC WORKS

London N. Breed
Mayor

Alaric Degrafinried
Acting Director

Nicolas Huff
Bureau Manager

Street-Use and Mapping
49 South Van Ness Avenue
Suite 300
San Francisco, CA 94103
Phone: (628) 271-2000

sfpublicworks.org
facebook.com/sfpublicworks
twitter.com/sfpublicworks

NOTICE OF FINAL DETERMINATION TO DENY APPLICATION FOR A PERSONAL WIRELESS SERVICE FACILITY SITE PERMIT

6/30/2021

Yadira Cerrato
Project Manager
MODUS, INC for GTE Mobilnet (Verizon Wireless)
240 Stockton Street, Floor 3
San Francisco, CA 94108
(323) 712-2789

Application Number(s) and Location(s):

- **20WR-00055, 1301 REVERE AVE**
- **20WR-00057, 2797 BRYANT ST**
- **20WR-00058, 289 HAMILTON ST**
- **20WR-00059, 1500 SILLIMAN ST**
- **20WR-00060, 300 MADISON ST**
- **21WR-00005, 1900 UNION ST**
- **21WR-00006, 10 AUGUSTA ST**
- **21WR-00007, 18 CERES ST**
- **21WR-00012, 2231 22ND ST**
- **21WR-00060, SAN BRUNO AVE between 3rd St/GIRARD ST to CAMPBELL AVE – EAST SIDE**

Public Works **DENIES** the above-referenced Applications for Personal Wireless Service Facility Site Permits for the following reason(s):

- Under Article 25 of the Public Works Code, Public Works may only issue a Personal Wireless Service Facility Site Permit to install a Personal Wireless Service Facility on an existing utility pole. Public Works cannot issue a Permit for a Personal Wireless Service Facility to be constructed on a stand-alone pole. These applications are for stand-alone poles.

Within fifteen (15) calendar days of the issuance of this notice, GTE Mobilnet

(Verizon Wireless) may appeal the denial of this permit to the Board of Appeals. Appeals must be filed in person by either the appellant or the appellant's agent. For further information regarding the appeal process, please contact the Board of Appeals at 628-652-1150 or boardofappeals@sfgov.org. You may also visit sfgov.org/bdappeal for instructions concerning filing an appeal and for general information concerning the appeals process.

BRIEF SUBMITTED BY THE APPELLANT(S)

MACKENZIE & ALBRITTON LLP
155 SANSOME STREET, SUITE 800
SAN FRANCISCO, CALIFORNIA 94104

TELEPHONE 415 / 288-4000
FACSIMILE 415 / 288-4010

August 12, 2021

VIA EMAIL

President Darryl Honda
Vice-President Rick Swig
Commissioners Ann Lazarus,
Tina Chang, and Jose Lopez
San Francisco Board of Appeals
49 South Van Ness Ave., Suite 147
San Francisco, CA 94103

Re: Appeal No. 21-063,
GTE Mobilnet of California LP vs. SFPW-BSM
For Verizon Wireless Personal Wireless Service Facilities,
Wireless Site Permit 20WR-00055 (1301 Revere Ave.),
20WR-00057 (2797 Bryant St.), 20WR-00058 (289 Hamilton St.),
20WR-00059 (1500 Silliman St.), 20WR-00060 (300 Madison St.),
21WR-00005 (1900 Union St.), 21WR-00006 (10 Augusta St.),
21WR-00007 (18 Ceres St.), 21WR-00012 (2231 22nd St.), 21WR-00060 (San Bruno Ave. between 3rd St./Girard St. to Campbell Ave-East Side)
Board of Appeals Hearing, September 1, 2021

Dear President Honda, Vice-President Swig, and Commissioners:

We submit this letter on behalf of our client GTE Mobilnet of California LP ("Verizon Wireless") and its contractor, Modus LLC. Verizon Wireless appeals the Department of Public Works' denial of ten applications for small wireless facilities on new stand-alone poles. As we explain below, Verizon Wireless carefully designed these facilities to mimic existing light poles in public right-of-way and must install new poles because the areas to be served have no existing right-of-way infrastructure to support

wireless facilities. The City's Planning Department and Department of Public Health thoroughly reviewed eight of these ten applications and determined that they meet all standards for approval. After spending months processing these applications, DPW issued a written decision denying the applications, claiming that Article 25 does not provide for stand-alone poles. As we explain below, this decision violates state and federal law. We respectfully ask that you grant this appeal and allow Verizon Wireless to improve wireless service in underserved areas of the City.

I. The Proposed Small Cells Will Improve Wireless Service in Underserved Areas.

Verizon Wireless has been improving its network performance throughout the City through the installation of hundreds of small cells on existing light standards and utility poles. The purpose of Verizon Wireless's small cell network, including these ten poles, is to provide new, ultra-wideband 5G service, and improve existing 4G service by increasing capacity and providing new in-building coverage. To provide these new and improved services, Verizon Wireless must install small cells in closer proximity to end users than existing "macro" facilities, known as densifying the network.

The need for additional wireless services and capacity is clear: the 2021 survey conducted by CTIA confirmed that "[m]obile wireless data traffic had another record year, topping 42 trillion MBs—a 208% increase since 2016" and that in the last decade "Americans have driven a 108x increase in mobile data traffic."[1]

[1] Available at: https://www.ctia.org/news/2021-annual-survey-highlights.

Wherever possible, Verizon Wireless deploys small cells on existing vertical infrastructure such as utility poles or light poles. However, not all neighborhoods in San Francisco have the necessary vertical infrastructure. For example, the San Francisco Public Utilities Commission ("SFPUC") does not have light poles in every neighborhood. The San Francisco Municipal Transportation Agency ("SFMTA") does not have MUNI lines and poles in every neighborhood. To further complicate matters, the placement of Verizon Wireless facilities is regulated not only by the various departments of the City, but also by PG&E, the California Public Utilities Commission, the Federal Communications Commission ("FCC"), and other entities.

The locations for which Verizon Wireless is pursuing stand-alone poles are areas of the City, such as the Excelsior and Hunters Point, where either there is no vertical infrastructure available or one of these many entities has precluded the use of the existing poles. We have included a general explanation of the constraints of placing wireless facilities as well as site-specific analysis for each of these ten locations attached here as Exhibit A. Seven (7) of the proposed facilities are for 5G-only and three (3) are 4G/5G-combination facilities.

II. Procedural Background

Before proposing to install any stand-alone poles in San Francisco, Verizon Wireless met with decision-makers from DPW, Department of Information and Technology, and the Planning Department, on July 31, 2020, to explain the need for stand-alone poles in certain locations in the City. Verizon Wireless described the location and designs of five facilities. The design was not a Verizon original; rather, the facilities were designed to comply with then draft, but now final DPW Order No. 204901.

Pursuant to the timeline and procedures disclosed at that meeting, Verizon Wireless submitted five Article 25 permit applications for stand-alone poles on September 30, 2020. By January 15, 2021, all five applications had Planning and Department of Public Health ("DPH") determinations recommending approval. On February 16, 2021, Verizon Wireless submitted a second batch of four stand-alone pole applications under Article 25. By April 27, 2021, three of these four applications had Planning and DPH determinations recommending approval.[2]

On February 3, 2021, more than six months after Verizon Wireless's initial meeting with the City on this topic and more than two weeks after Planning and DPH had determined the first batch of five proposed facilities met all standards for approval, Acting DPW Director Alaric Degrafinried informed Verizon Wireless that he wanted to seek an amendment to Article 25 to clarify the permitting of stand-alone poles. In order to do so, he required an extension of the FCC's "shot clock" deadline for the City to act on the applications. Verizon Wireless gave DPW multiple 30-day extensions, and DPW proposed revisions to Article 25 and introduced them to the Board of Supervisors on March 29, 2021. However, since that time, the City has not acted on the proposed Article 25 amendments, nor the eight applications already approved by Planning and DPH. Verizon Wireless declined to further extend the shot clock deadline, which expired on June 30, 2021. In response, DPW promptly issued a denial on June 30, 2021, summarily stating that "Public Works cannot issue a Permit for a Personal Wireless Service Facility to be constructed on a stand-alone pole."

[2] Two applications, one in the April 27, 2021, batch and another submitted on May 28, 2021, were still undergoing review by DPW at the time of denial.

III. Article 25 Permits Stand-Alone Poles

The plain language of Article 25 states that new poles for wireless facilities are prohibited only "where there presently are no overhead utility facilities." SF Public Works Code §1500(c)(1). They are not prohibited in any other area of the City. In all of the proposed locations, "overhead utility facilities" are present in the form of PG&E transmission lines and/or SFMTA facilities. Therefore, new poles for wireless facilities are allowed.

IV. Denying These Applications Violates State Law

California Public Utilities Code Section 7901 creates a franchise for "telephone corporations" to place "telephone lines" in public right-of-way. This includes the right to "erect poles" so long as they do not "incommode the public use of the road."[3] This right is not absolute, and San Francisco itself litigated this issue. In *T-Mobile West LLC v. City and County of San Francisco* (2019) 6 Cal.5th 1107, 1122, the California Supreme Court determined that a city's police power to regulate aesthetic impacts is not preempted by Section 7901. However, Verizon Wireless maintains a compulsory right under section 7901 to install poles for wireless equipment.

Any argument by the City related to aesthetic considerations is precluded by the fact that the design of the stand-alone poles mimics existing light poles in the public right-of-way. Indeed, the design of the 5G-only poles complies with the design standards established by DPW Order No. 204901, and the design of the 4G/5G-combination poles

[3] Section 7901 states, in full, "[t]elegraph or telephone corporations may construct lines of telegraph or telephone lines along and upon any public road or highway, along or across any of the waters or lands within this State, and may erect poles, posts, piers, or abutments for supporting the insulators, wires, and other necessary fixtures of their lines, in such manner and at such points as not to incommode the public use of the road or highway or interrupt the navigation of the waters."

comply with design standards for wooden utility poles in the same order. As San Francisco has already expressed its visual preferences for this type of pole, it cannot now contend that the stand-alone poles do not pass aesthetic muster.

V. The Denial Violates Federal Law

Based on the public's interest in promoting widespread availability of reliable personal wireless service, Congress enacted the Telecommunications Act of 1996 to "encourage the rapid deployment of new telecommunications technologies." *City of Rancho Palos Verdes v. Abrams*, 544 U.S. 113, 115 (2005) (citations omitted). The Telecommunications Act "imposes specific limitations on the traditional authority of state and local governments to regulate the location, construction, and modification of such facilities." *Id*. Section 332(c)(7) preempts local regulations of wireless facilities that "prohibit or have the effect of prohibiting the provision of personal wireless services." 47 U.S.C. § 332(c)(7)(B)(i)(II). Section 253 of the Telecommunications Act provides that "[n]o State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service." 47 U.S.C. § 253(a).

Congress gave the FCC broad power to interpret and implement the Telecommunications Act. 47 U.S.C. § 303; *City of Portland v. United States*, 969 F.3d 1020, 1032 (9th Cir. 2020), cert. denied, __U.S. __ (U.S. June 28, 2021) (No. 20-1354) ("*City of Portland*"). The FCC exercised this "authority to interpret Sections 253 and 332 of the Act to further elucidate what type of state and local legal requirements run afoul of the statutory parameters Congress established." *Id*. ¶ 21. *In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure*

Investment, 33 FCC Rcd. 9088, 2018 WL 478555, (FCC rel. Sept. 27, 2018), aff'd in part and rev'd in part, *City of Portland v. United States*, 969 F.3d 1020 (9th Cir. 2020), cert. denied, __U.S. __ (U.S. June 28, 2021) (No. 20-1354) ("*Small Cell Order*"). Courts generally defer to the FCC's reasonable interpretations, except to a limited extent, not relevant here. *City of Portland, supra,* 969 F.3d at 1037.[4]

A. Material Inhibition of Service

The FCC made key rulings regarding application of Sections 253's and 332's "effective prohibition" standard in the *Small Cell Order*. The FCC reaffirmed, as its "definitive interpretation of the effective prohibition standard," that "a state or local legal requirement constitutes an effective prohibition if it 'materially limits or inhibits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment.'" *Small Cell Order*, ¶ 35 (citations omitted). A "legal requirement can 'materially inhibit' the provision of services even if it is not an insurmountable barrier." *Id*.

An effective prohibition "occurs when a state or local legal requirement materially inhibits a provider's ability to engage in any of a variety of activities related to its provision of a covered service." *Small Cell Order*, ¶ 37. This test is satisfied "not only when filling a coverage gap but also when densifying a wireless network, introducing new services or otherwise improving service capabilities." *Id*. A local requirement could

[4] The Ninth Circuit upheld the Small Cell Order except "to the extent that provision requires small cell facilities to be treated in the same manner as other types of communications services, the regulation is contrary to the congressional directive that allows different regulatory treatment among types of providers, so long as such treatment does not 'unreasonably discriminate among providers of functionally equivalent services.'" *City of Portland, supra*, 969 F.3d at 1032. It also held "that the FCC's requirement that all aesthetic criteria must be 'objective' lacks a reasoned explanation." *Ibid*.

run afoul of the standard "in numerous ways," such as "by rendering a service provider unable to provide an existing service in a new geographic area or by restricting the entry of a new provider in providing service in a particular area, but also by materially inhibiting the introduction of new services or the improvement of existing services." *Id*.

The FCC defines "service" in this context to mean "any covered service a provider wishes to provide, incorporating the abilities and performance characteristics it wishes to employ, including to provide existing services more robustly, or at a higher level of quality—such as through filling a coverage gap, densification, or otherwise improving service capabilities." *Small Cell Order*, ¶ 37, n.87 (citations omitted). An effective prohibition determination "focuses on the service the provider wishes to provide, incorporating the capabilities and performance characteristics it wishes to employ, including facilities deployment to provide existing services more robustly, or at a better level of quality. . . ." *Id*. ¶ 40, n.95.

In this instance, DPW's denial violates the Small Cell Order and effectively prohibits Verizon Wireless from providing service. Barring Verizon Wireless from placing standalone poles in San Francisco prevents it from providing improved service to specific areas of the city, including historically underserved areas. Specifically, Verizon Wireless cannot provide high-speed ultra-wide band ("UWB") 5G service without these small cells. The inability to place stand-alone poles prohibits Verizon Wireless from providing a new service available in the rest of the City. It prevents Verizon Wireless from providing new UWB 5G service, from improving its 4G service, and from densifying its network, in violation of federal law.

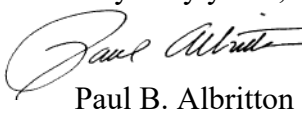
B. Published in Advance

The *Small Cell Order* requires that any local aesthetic regulation of small cell facilities must be published in advance. *Small Cell Order*, ¶¶ 86, 87 ("We conclude that aesthetics requirements are not preempted if they are . . . . published in advance.") This is because "[p]roviders cannot design or implement rational plans for deploying Small Wireless Facilities if they cannot predict in advance what aesthetic requirements they will be obligated to satisfy to obtain permission to deploy a facility at any given site." *Id.* ¶ 88. The Ninth Circuit upheld the "published in advance" requirement. *City of Portland*, *supra,* 969 F.3d at 1041. To the extent the City has or will deny the stand-alone pole applications based on aesthetic concerns, those standards must have been published in advance. Here, Verizon Wireless has substantially complied with the only aesthetic standards available, as discussed above. Any attempt to hold Verizon Wireless to an as-yet to be adopted standard violates federal law.

VI. Conclusion

In conclusion, this Board should grant the Appeal and allow Verizon Wireless to move forward with construction of the proposed stand-alone poles. Representatives of Verizon Wireless and Modus will be present at the hearing to answer any questions.

Very truly yours,



Paul B. Albritton

cc: William K. Sanders, Esq.
Scott Sanchez, AICP
Leoncio Palacios, DPW

Schedule of Exhibits

Exhibit A: Alternatives Analysis
Exhibit B: Hunters Point 009 – 1301 Revere Ave.
Exhibit C: Excelsior 005 – 300 Madison Street
Exhibit D: Excelsior 006 – 1500 Silliman Street
Exhibit E: Excelsior 012 – 289 Hamilton Street
Exhibit F: Excelsior 082 – East Side of San Bruno Avenue between 3rd Street/Girard Street and Campbell Avenue
Exhibit G: Noe Valley 047 – 2797 Bryant Street
Exhibit H: Potrero Hills 011 – Adjacent to 2231 22nd Street
Exhibit I: Potrero Hills 023 – Pedestrian Island in front of 10 Augusta Street
Exhibit J: Potrero Hills 024 – 18 Ceres Street
Exhibit K: Pacific Heights 050 – 1900 Union Street

Exhibit A

Alternative Site Analysis

Article 25 Stand-Alone Pole Applications
Summary of Site Evaluation
San Francisco, California
8/12/2021

Table of Contents

Table of Figures

I. Summary

Verizon Wireless has been improving its network performance throughout the City and County of San Francisco by installing hundreds of small cells on existing light standards and utility poles over several years. As part of this effort to improve wireless service in the City, Verizon Wireless proposes ten (10) stand-alone poles with wireless facilities in the public right-of-way to serve areas that have no feasible, existing right-of-way infrastructure to support wireless facilities. The purpose of Verizon Wireless's small cell network, including these ten poles, is to provide new, ultra-wideband 5G service and improve existing 4G service by increasing capacity and providing new in-building coverage. The proposed stand-alone small cell facilities will densify the existing wireless network, introduce new services, and improve Verizon Wireless service for pedestrians, motorists, visitors, and residents, as well as emergency services personnel and first responders. In addition to bringing new 5G service to the affected neighborhoods, the small cell facilities will improve existing service by offloading traffic from nearby larger "macro" facilities, adding capacity and in-building coverage in targeted areas where it is needed.

Wherever possible, Verizon Wireless deploys small cells on existing vertical infrastructure such as utility poles or light poles. However, not all neighborhoods in San Francisco have the necessary vertical infrastructure. For example, the San Francisco Public Utilities Commission ("SFPUC") does not have light poles in every neighborhood. The San Francisco Municipal Transportation Agency ("SFMTA") does not have MUNI lines and poles in every neighborhood. Furthermore, the placement of Verizon Wireless facilities is regulated not only by multiple departments of the City, but also by PG&E, the California Public Utilities Commission, the Federal Communications Commission ("FCC"), and other entities. Verizon Wireless reviewed dozens of existing poles in the public right-of-way but had to disqualify them based upon engineering considerations, constraints imposed by these other entities, and other factors affecting feasibility. The locations for which Verizon Wireless is pursuing stand-alone poles are areas of the City, such as the Excelsior and Hunters Point, where either there is no vertical infrastructure available or one of these many entities has precluded the use of the existing poles. Verizon Wireless has proposed the specific poles in question only after conducting an extensive, comprehensive, and thorough review of all other potential options. This report summarizes the siting criteria Verizon Wireless employed and explains the feasibility constraints associated with each site.

II. Service Objective

Verizon Wireless is building out its 5G network in San Francisco. 5G is the next generation of wireless services. It can carry large amounts of data at high speeds (throughput) with extremely low latency (delay), unlike previous technologies. Because 5G signals use higher frequencies, they cover much smaller areas than 4G signals and are more easily blocked by buildings or other obstructions. 5G facilities can provide service to a distance of 300-500 feet, depending on topography, clutter, and other factors, whereas 4G facilities can cover a greater distance, up to 1,000-1,500 feet.

Because of this smaller coverage footprint and more readily blocked signal, 5G service requires larger numbers of antennas in closer proximity to end users. This requires the use of small cells. In addition,

some of the proposed small cells will enhance existing 4G services, by increasing capacity and providing additional in-building coverage for end users in the immediate area.

III. Project Description

This proposal includes seven (7) 5G-only facilities and three (3) 4G/5G-combination facilities. All ten facilities will enable next-generation 5G technology, while the three hybrid facilities will also improve existing 4G capacity and/or coverage in the vicinity. Each of the proposed facilities involves the installation of a new Verizon Wireless small cell wireless facility on a new steel pole in the public right-of-way. New poles are necessary because the proposed facilities are in areas of San Francisco where there is no other feasible infrastructure in the public right-of-way available to support wireless facilities, i.e., SFPUC light poles, SFMTA poles, or PG&E power poles. Verizon Wireless designed the stand-alone poles with the smallest footprint possible, so as not to incommode the public right-of-way. The design of the 5G-only poles complies with the design standards established by DPW Order No. 204901, and the design of the 4G/5G-combination poles comply with design standards for wooden utility poles in the same DPW Order. Consequently, the new poles mimic existing ones in the public right-of-way.

Figure 1: Location and Pole Type

SITE NAME	STREET ADDRESS	TECHNOLOGY
EXCELSIOR 082	East Side of San Bruno Avenue between 3rd Street / Girard Street and Campbell Avenue	5G
EXCELSIOR 005	300 Madison Street	4G/5G
EXCELSIOR 006	1500 Silliman Street	4G/5G
EXCELSIOR 012	289 Hamilton Street	5G
SF HUNTERS POINT 009	1301 Revere Avenue	4G/5G
NOE VALLEY 047	2797 Bryant Street	5G
PAC 050	1900 Union Street	5G
POTRERO HILLS 024	18 Ceres Street	5G
POTRERO HILLS 023	Pedestrian island in front of 10 Augusta Street	5G
POTRERO HILLS 011	Adjacent to 2231 22nd Street	5G

The project scope for the 4G/5G-combination facilities include:

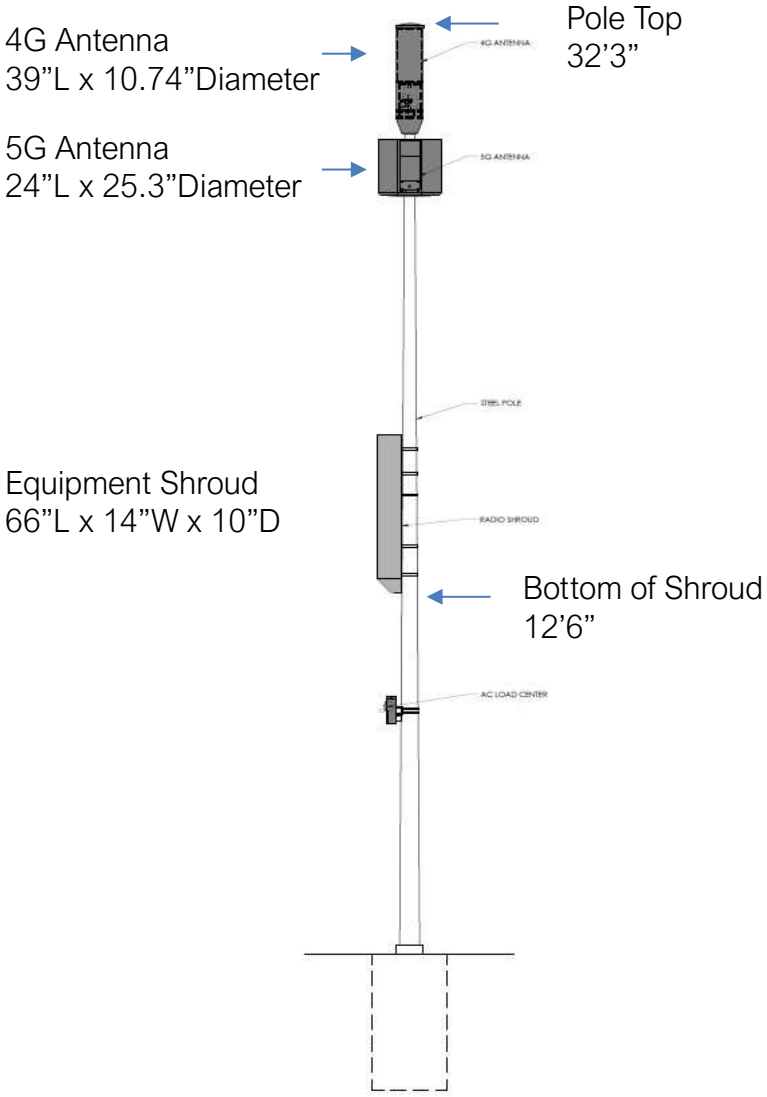
- Installation of a new steel pole and foundation
- One (1) new canister 4G antenna inside new fiberglass reinforced panel ("FRP") concealment shroud on top of pole
- Three (3) new integrated 5G antenna units in FRP shroud at top of pole
- New remote radio units ("RRUs") in new radio shroud on side of pole
- New coaxial cable from equipment to new antenna within pole
- One (1) New Smart meter/disconnect switch on side of pole

The project scope for 5G-only facilities includes:

- Installation of a new steel pole and foundation
- Three (3) new integrated 5G antenna units in FRP shroud at top of pole
- New coaxial cable from equipment to new antenna within pole
- One (1) New Smart meter/disconnect on side of pole

The proposed design for a 4G/5G facility will be as shown in Figure 2. The 5G facility will be identical, except that there will be no 4G antenna above the pole.

Figure 2: 4G/5G Wireless Facility Design and Photosimulation



IV. Methodology

Once Verizon Wireless has established a service objective, it identifies a target location that would optimize network performance and a design that complies with aesthetic values expressed by local regulations. The solution must also be technically feasible. In considering potential locations and designs, Verizon Wireless conducts due diligence to find a solution that creates minimal aesthetic and other impacts on the community. Verizon Wireless reviews the radio frequency propagation, proximity to end users, available equipment space, access, topography, elevation, height of existing poles, available electrical and telephone utilities, access, constructability, and other critical factors in completing its site analysis.

Verizon Wireless is also constrained by additional considerations, including, but not limited to, the following:

- Target service area/network need
- Minimizing disturbance:
  - Proximity to point of connection for power to minimize trenching
  - Minimizing to the extent feasible view obstructions to residential windows
  - Accommodating existing street trees and landscaping
  - Avoiding existing street signs
- Compliance with San Francisco-specific requirements:
  - San Francisco licensor requirements
  - Clearance from existing electric service conductors
  - Impacts on existing utilities and street furniture
- Compliance with non-SF regulations:
  - PG&E regulations regarding curbs and driveways
  - Public Utilities Code General Order 95 regulating overhead electrical line construction
  - Americans with Disabilities Act rules regarding path of travel
- Impact on existing in-ground utilities and infrastructure

Wherever feasible, Verizon Wireless seeks to place wireless facilities on existing infrastructure, using the least burdensome approval process as a metric for a city's preference. Where this is not feasible, Verizon Wireless seeks to identify alternate feasible locations as close to the target area as possible in which to locate a wireless facility to best service the area. In Section 8.1(1) of the San Francisco Planning Department's 1996 *Wireless Telecommunications Services Facilities Siting Guidelines*[1], the City's number one preferred location for a wireless facility is "publicly-used structures," including "utility structures," such as existing utility poles in the public right-of-way. The City has also implicitly expressed a preference for use of poles in the public right-of-way owned by the San Francisco Public Utility

[1] Available at: https://sfplanning.org/resource/wireless-telecommunications-services-wts-facilities-siting-guidelines.

Commission and the San Francisco Municipal Transportation Agency through their respective licensing processes. Its next preference, reflected in Article 25 of the San Francisco Public Works Code, is for utility poles in the public right-of-way. *See, e.g.*, San Francisco Public Works Code §1502 (defining "Utility Pole" to mean "a power pole, telephone pole, or other similar pole subject to California Public Utilities Commission General Order 95 and located within the Public Rights-of-Way").

Finally, Article 25 allows stand-alone poles under certain circumstances. Specifically, San Francisco Public Works Code §1500(c)(1) prohibits the installation of new poles in rights-of-way where there are presently no overhead utilities, but nowhere else. In other words, stand-alone small cell facilities are permitted under Article 25 where overhead utility lines are present, as they are in these locations. Consequently, Verizon Wireless applied for stand-alone poles under Article 25.

As previously described in Section III above, the 5G-only poles comply with the design standards established by DPW Order No. 204901 for steel utility poles in public right-of-way. The 4G/5G-combination poles substantially comply with design standards for steel utility poles, but for the limitation on the number of antennas. The proposed design includes one 4G antenna and three 5G antennas, but DPW Order No. 204901 limits the number of antennas on a steel pole to three. The 4G/5G combination poles comply with the design standards for wooden utility poles, which limit the number of antennas on a pole to four.

V. Analysis – Deployment Challenges and Constraints

Consistent with the City's preferences in Section IV above, Verizon Wireless first looked for streetlights and SFMTA poles in public rights-of-way in the target area to host the proposed wireless facilities. However, the proposed areas are not serviced by SFPUC streetlights (for example, areas where the lights are affixed to PG&E utility poles or SFMTA poles). Next, Verizon Wireless evaluated the feasibility of PG&E utility poles. Verizon Wireless found that the PG&E poles were infeasible due to structural overloading and recently adopted PG&E requirements. With no other existing infrastructure option left in the public right-of-way, Verizon Wireless has proposed stand-alone poles.

Verizon Wireless took both practical and technical considerations into account when developing the best solution and location to address its coverage objective. Verizon Wireless is constrained not only by the existing infrastructure landscape, but it is also regulated by multiple entities, which impose their own regulations and limitations on wireless facilities. Sections A through F below describe some of these challenges and constraints. Section G is a site-specific analysis of why the existing infrastructure in the right-of-way is infeasible.

A. Neighborhood Characteristics

One of San Francisco's assets is the distinct character of each neighborhood. Unfortunately, like neighborhood character, infrastructure also varies from neighborhood to neighborhood. For instance, some neighborhoods, like Hunters Point, have only PG&E utility poles in the public right-of-way, and only on one side of the street.

Figure 3: Street View Near 1700 Ingalls Street

Other neighborhoods, like Cow Hollow, have much more infrastructure in the public right-of-way, including, decorative light poles and SFMTA poles. However, use of these poles for wireless facilities is prohibited by SFMTA.

Figure 4: Street View Near 1900 Union Street

Consequently, in certain neighborhoods, the need for a new stand-alone pole is largely dictated by the nature, type, and feasibility of existing infrastructure in the public right-of-way.

B. PG&E Regulations

In addition to the City's requirements, Verizon Wireless must comply with PG&E regulations to locate a small cell wireless facility on a PG&E pole. In December 2019, PG&E enacted a new standard regulating communications equipment on PG&E poles. The prohibitions established by that standard preclude the use of many poles by wireless carriers.

Figure 5: PG&E Standard 027911 For Equipment

INSTALLATION DETAILS FOR SERVICE TO POLE-MOUNTED COMMUNICATION EQUIPMENT **027911**

Asset Type:	Electric Distribution	**Function:**	Construction
Issued by:	Daniel W. Jantz (DWJ)	**Date:**	12/01/19

Rev. #12: This document replaces PG&E Document 027911, Rev. #11. For a description of the changes, see Page 14.

5. **3rd party (non-PG&E) owned antennas and communication equipment are not allowed to be installed on poles that have PG&E distribution equipment installed, and connected to the primary voltage lines. This includes the top of the pole and the communication zone. This will reduce interference on poles and allow for quicker and safer access during emergency work for the operation and replacement of equipment.**

   Distribution equipment includes primary risers, cutouts, fuses, switches, transformers, capacitors, regulators, as well as any other type of equipment not listed here that is connected to the overhead primary lines.

6. To maintain a safer work environment and more reliable system, primary voltage lines already built with the current standard triangular construction, at pole top, must not be rebuilt to flat crossarm construction.

Pacific Gas and Electric Company®

Utility Bulletin: TD-027911-B006
Publication Date: 05/15/2020 Rev: 0

Update to - Installation Details for Service to Pole-Mounted Communication Equipment

6. Primary voltage lines with triangular construction provide a safer work environment, more reliable system, and reduces the threats of fire ignition, by increasing the separation of the wires and installing them at different levels. For these reasons, the design and installation of antennas on existing pole tops where the primary voltage lines are built with triangular construction are not allowed. A pole nearby that has all wires on a crossarm (flat construction) or a streetlight pole may be selected.

The following poles, located near 1301 Revere Avenue, illustrate PG&E poles that have been prohibited by PG&E Standard 027911, due to the presence of certain types of equipment.

Figure 6: Transformer, Triangular Construction, Cutout

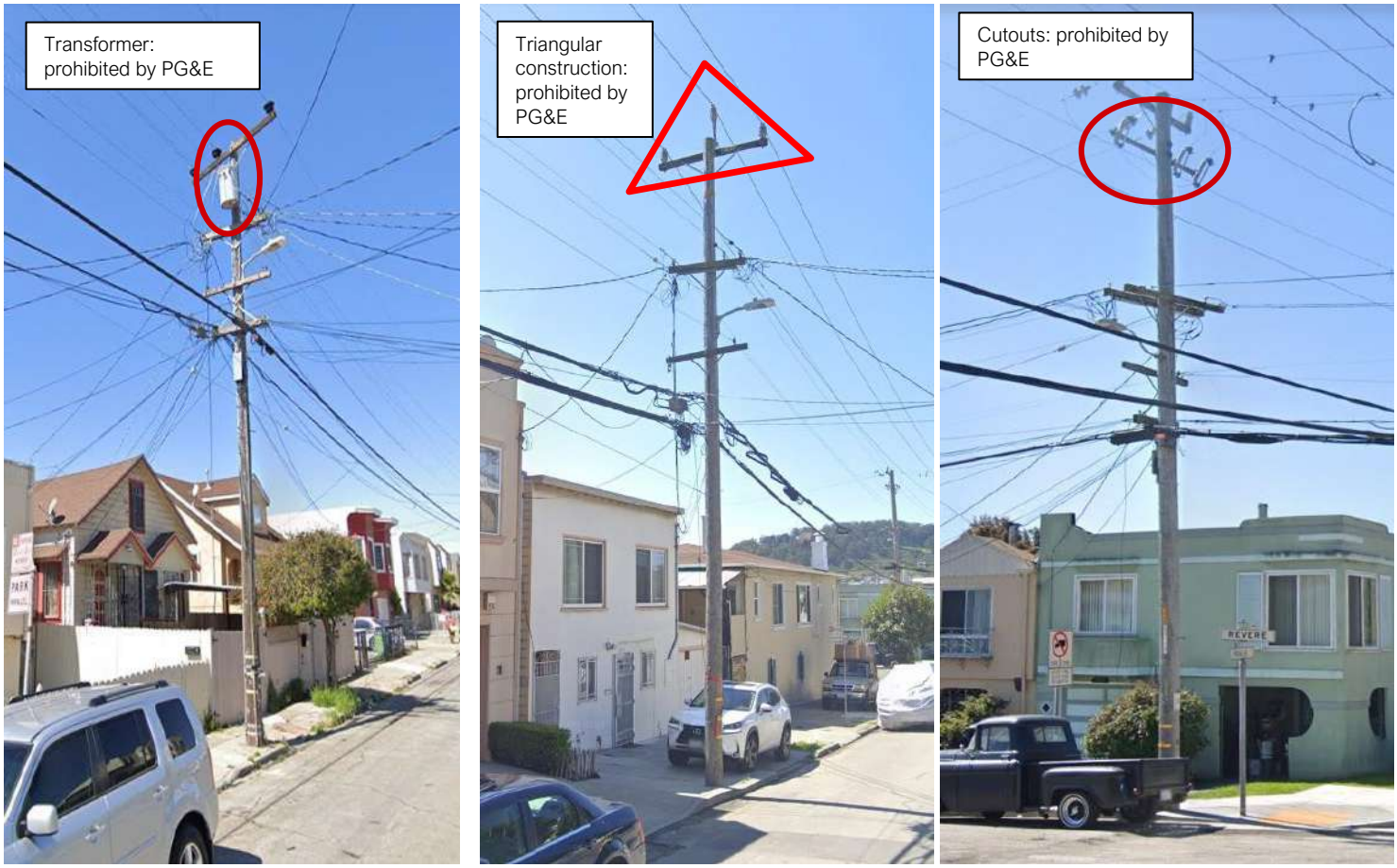
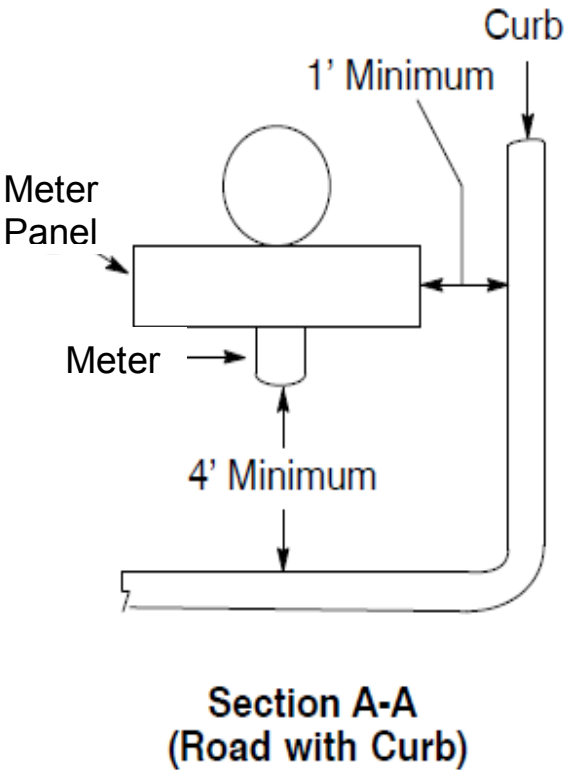


Figure 7: Telco Switch Box, Capacitor Bank, Fire Alarm

In addition, PG&E Standard 027911 contains new requirements related to minimum distance from curbs. These requirements also preclude many poles.

Figure 8: Curb Clearance Requirements

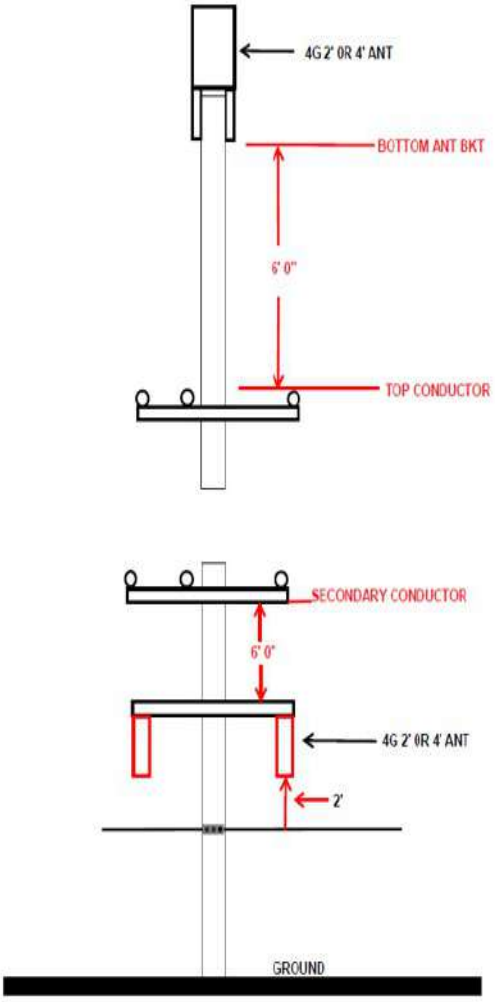


Section A-A
(Road with Curb)

C. California Public Utilities Commission Regulations

In addition to the City's and PG&E's requirements, Verizon Wireless must also comply with regulations enacted by the California Public Utilities Commission. California Public Utilities Commission General Order 95[2] establishes minimum distancing requirements between various kinds of equipment on a utility pole. These requirements also preclude the use of many poles that already host too much equipment or require a 15-foot extension to the existing pole to create enough space between all the equipment on the pole. Such an extension would violate the 12-foot height extension limit established by DPW Order No. 204901.

Figure 9: General Order 95 Clearance Requirements



G.O. 95, Rule 94.4 Clearances Requirements:

- Antennas and support elements below supply lines shall maintain a vertical clearance of 6 feet from Supply Conductors operating at 0 – 50kV.
- Antennas and support elements below communication lines shall maintain a 2 ft. vertical separation from communication conductors and equipment.
- Antennas, associated equipment, and support elements installed above supply lines and/or communication lines of different ownership attached to the same structure shall maintain the vertical clearances of 72 inches

[2] Available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M146/K646/146646565.pdf.

D. San Francisco Municipal Transit Authority Regulations

The SFMTA prohibits wireless facilities on many of their poles, including poles with equalizer spans, traffic poles, pedestrian signal poles, feeder poles, and decorative light poles, classing them as "categorical denials." *See SFMTA Pole Licenses for Wireless Carriers*, General Comment 1[3].

E. California Department of Transportation Regulations

The California Department of Transportation ("Caltrans") owns some light poles on and near freeways and on other areas under Caltrans jurisdiction. Caltrans prohibits wireless facilities on many poles where access for the construction or maintenance of a wireless facility may pose safety hazards for workers and travelling public. *See, e.g., Caltrans Encroachment Permits Manual*, Section 500.3F on p. 5-10 to 5-11[4]. Caltrans will not lease these poles to Verizon Wireless.

F. 5G-Specific and Other Considerations

Each 5G antenna must also have clear line-of-sight along the street it will serve to optimize the site's performance. Due to the nature of 5G technology, significant tree coverage prevents placement due to signal blockage. Existing dense, mature trees surrounding a pole require major tree abatement or tree removal, which is generally discouraged by DPW and disfavored by the community.

The amount of sidewalk space available must satisfy the Americans with Disability Act requirements. Verizon Wireless also aims to minimize the visual impact of a new pole to the neighborhood by avoiding placement directly adjacent to any residential windows, particularly at the height of the antenna equipment.

G. Alternative Site Analysis

The following aerial maps depict the proposed locations for the stand-alone poles as well as a brief explanation of why the existing poles in the immediate vicinity are infeasible.

[3] Available at: https://www.sfmta.com/services/business-services/pole-licenses-wireless-carriers.
[4] Available at: https://dot.ca.gov/programs/traffic-operations/ep/ep-manual.

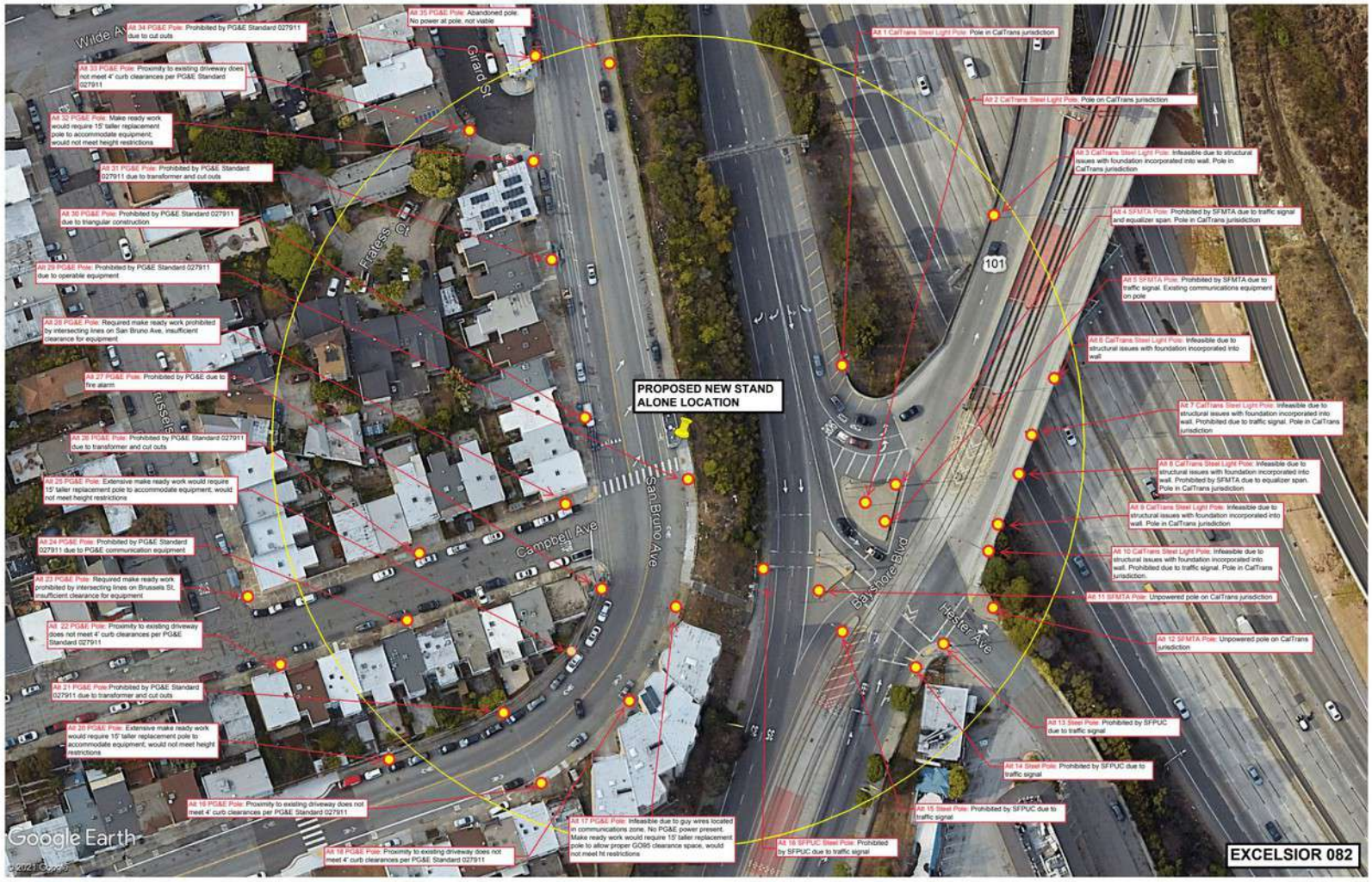
Hunters Point 009 – 1301 Revere Avenue

Excelsior 005 – 300 Madison Street

Excelsior 006 – 1500 Silliman Street

Excelsior 012 – 289 Hamilton Street

Excelsior 082 – East Side of San Bruno Avenue between 3rd Street/Girard Street and Campbell Avenue



Noe Valley 047 – 2797 Bryant Street

Potrero Hill 011 – Adjacent to 2231 22nd Street

Potrero Hills 023 – Pedestrian Island in front of 10 Augusta Street

Potrero Hills 024 – 18 Ceres Street

Pacific Heights 050 – 1900 Union Street

VI. Conclusion

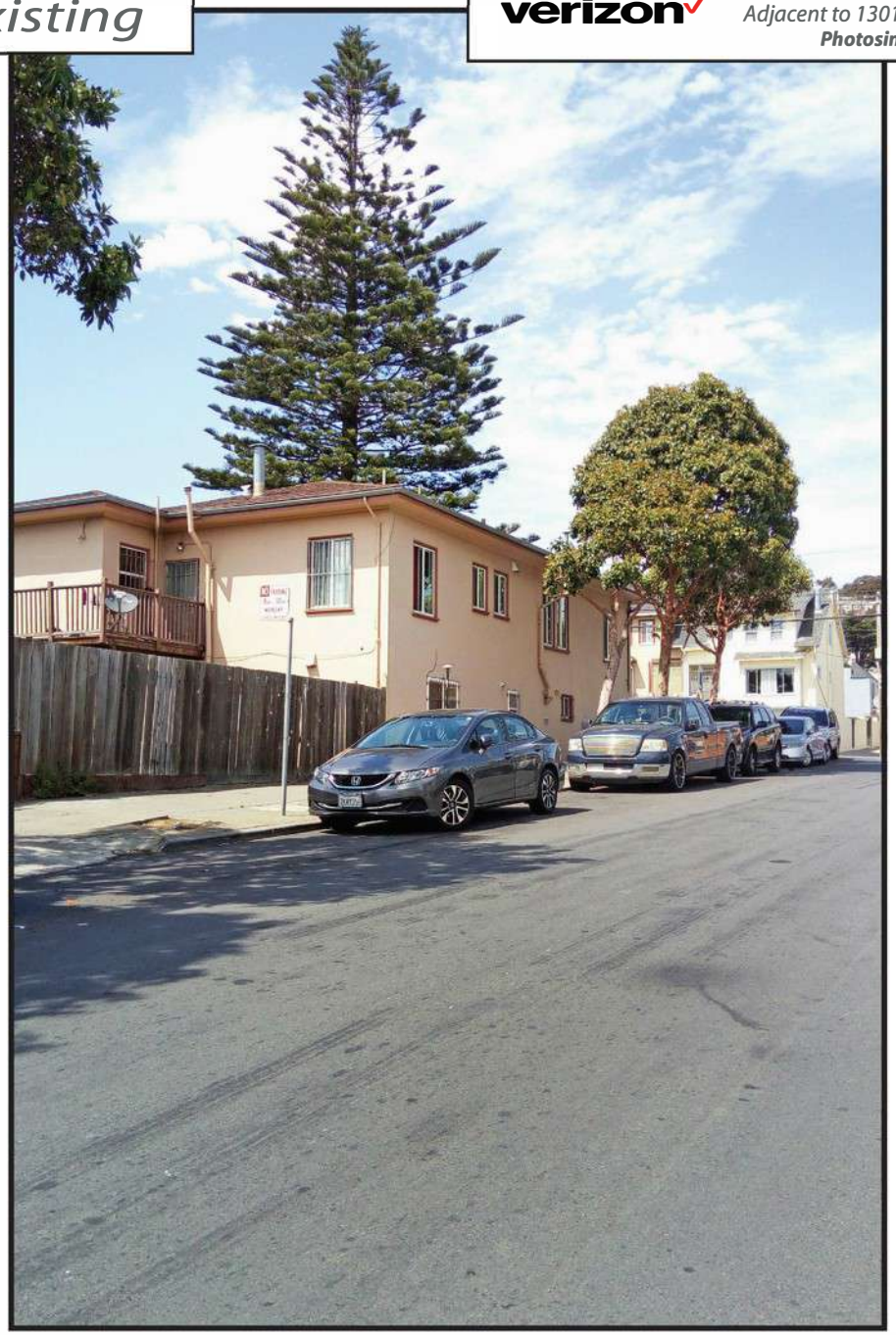
Verizon Wireless evaluated dozens of existing poles and locations to meet its coverage objectives. Based on this analysis and evaluation, Verizon Wireless has concluded that new stand-alone poles in the public right-of-way that are designed to substantially comply with DPW Order No. 204901 are the best way to provide the service improvements and address the community's wireless needs. Due to the constraints described above, Verizon Wireless's only technically feasible solution is to place new stand-alone poles in the public right-of-way.

view from Ingalls Street looking north at site

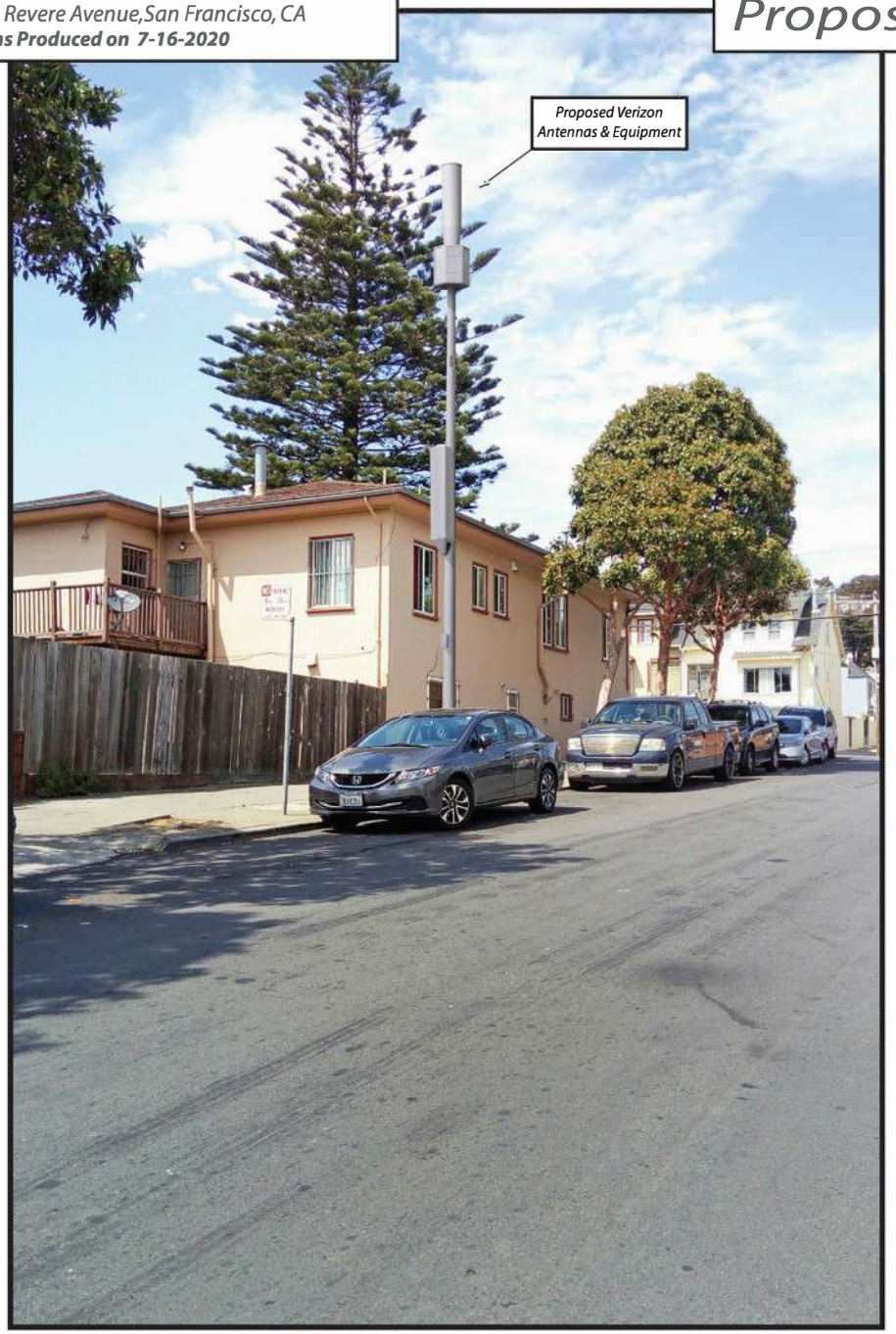
verizon

SF Hunters Point 009
Adjacent to 1301 Revere Avenue,San Francisco, CA
Photosims Produced on 7-16-2020

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

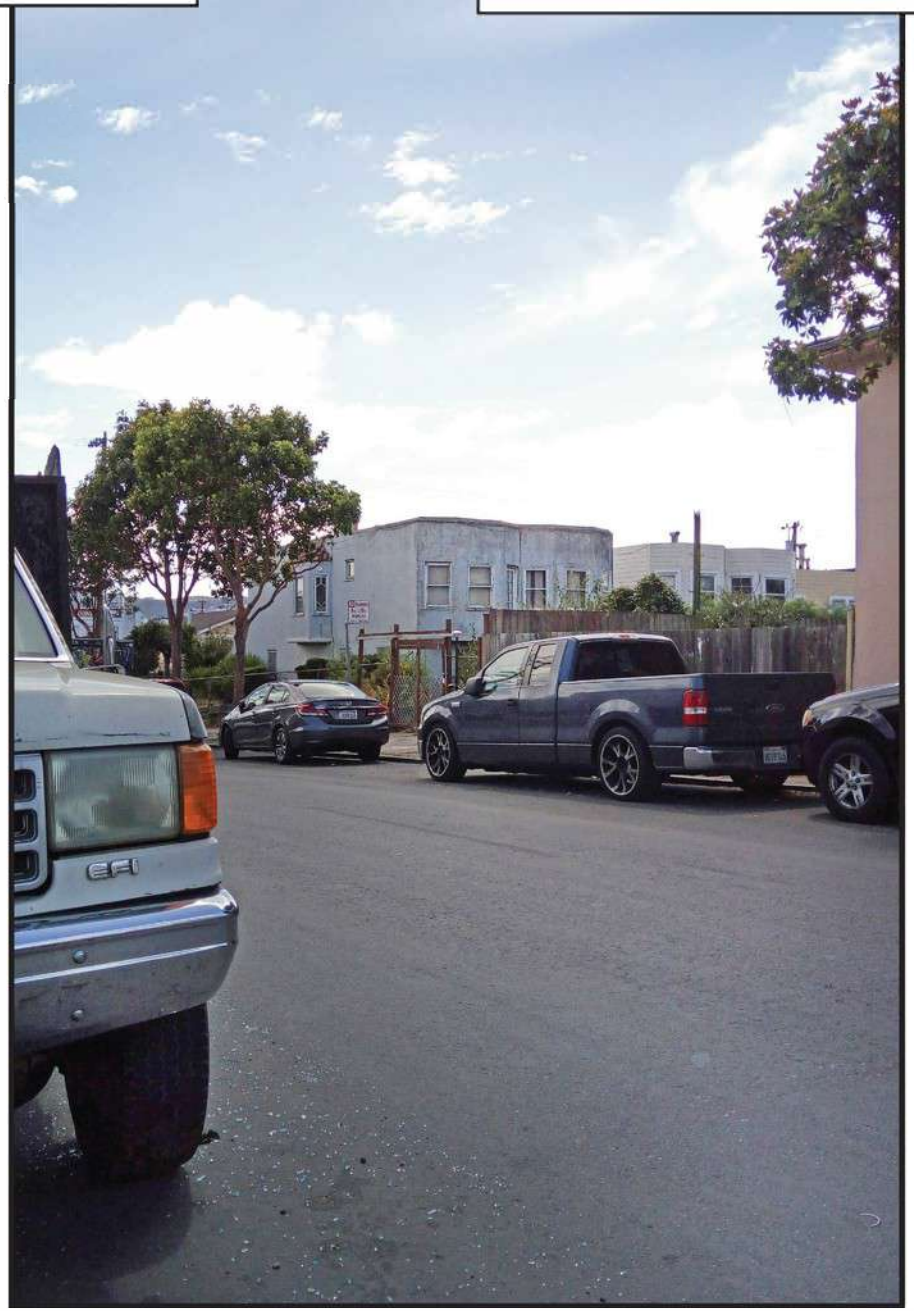
Exhibit B

view from Ingalls Street looking southwest at site

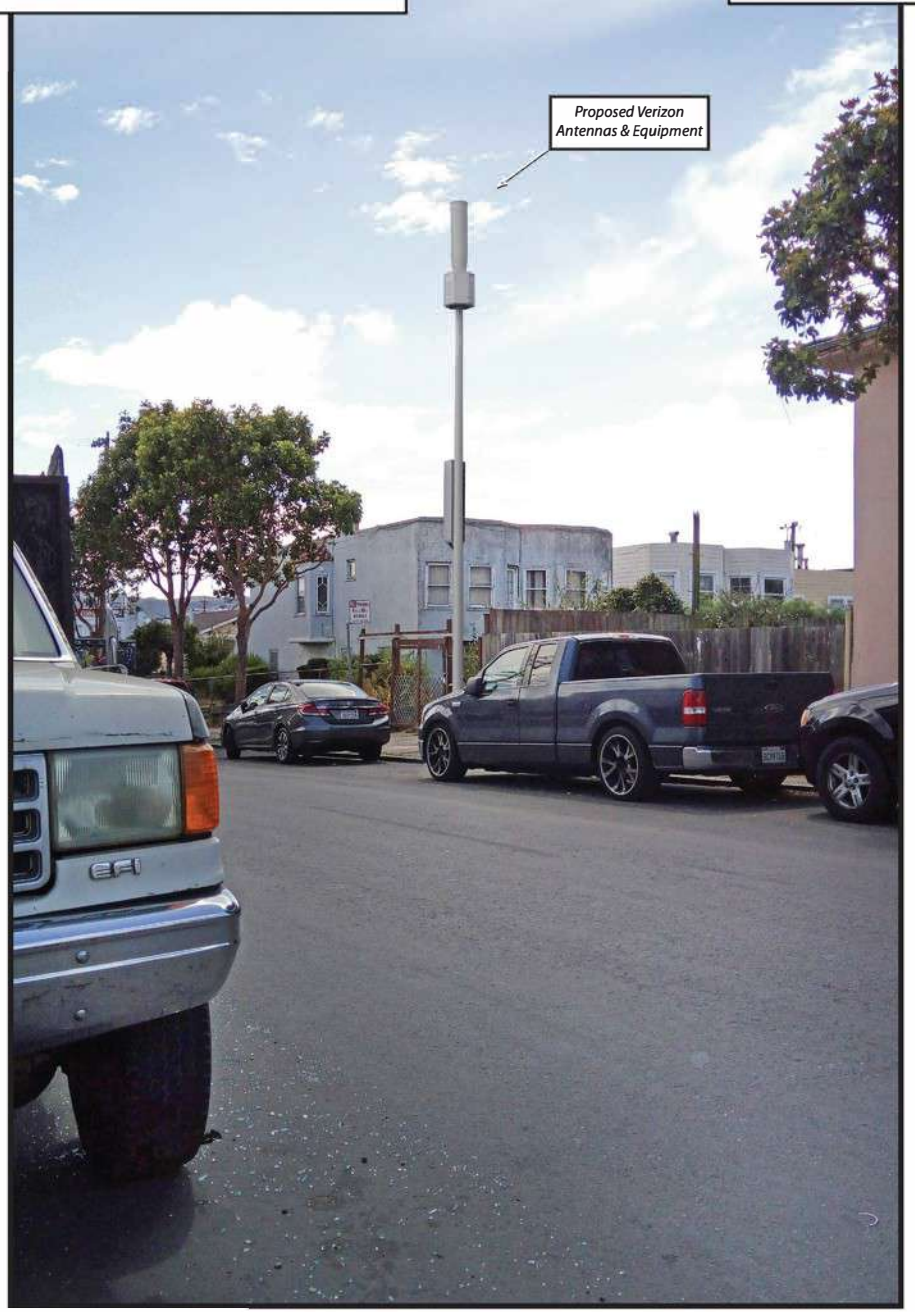
verizon

SF Hunters Point 009
Adjacent to 1301 Revere Avenue,San Francisco, CA
Photosims Produced on 7-16-2020

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

49 South Van Ness Avenue, Suite 1400
San Francisco, CA 94103

Date:	November 9, 2020
DPW Permit No.:	**20WR-00055**
Planning Case No:	2020-009518MIS
Project Address:	1301 Revere Ave - Verizon PROW WTS Facility Installation Steel Pole owned by Verizon Wireless
Project Sponsor:	Modus for Verizon Wireless 240 Stockton St., 3rd Floor San Francisco, CA 94108 verizonpolygonteam@modus-corp.com
Staff Contact:	Ashley Lindsay – 628-652-7360 Ashley.Lindsay@sfgov.org

Determination:	**Approval with Conditions**

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location, and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

Determination

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD NOT significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated September 28, 2020 and photo simulations dated July 16, 2020, and associated with DPW Wireless Application No. 20WR-00055.

Findings

The proposed Tier B Personal Wireless Service Facility is to be located in the public right-of-way in a Zoning Protected Location, adjacent to 1301 Revere Ave - Verizon PROW WTS Facility Installation, and on a street with Undesignated Street Views.

The proposed Personal Wireless Service Facility is, on balance, consistent with Article 25 of the Public Works Code and the Objectives and Policies of the General Plan, as follows:

Article 25 Compliance

I. The proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Residential or Neighborhood Commercial zoning district. This site is located within the insert zoning district.

The proposed Verizon Wireless personal wireless service facility would be situated within the RH-2 (Residential- House, Two Family) district. These Districts are devoted to one-family and two-family houses, with the latter commonly consisting of two large flats, one occupied by the owner and the other available for rental. Structures are finely scaled and usually do not exceed 25 feet in width or 40 feet in height.

Planning has determined that the proposed Verizon Wireless personal wireless service facility is designed in a streamlined manner, as proposed it will be located on a new steel pole RH-2 (Residential- House, Two Family) district.

General Plan Compliance

I. Urban Design Element

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1
EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

Policy 1.1
Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.9
Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14
Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation, and preserves the ability for an observer to perceive the City and its districts clearly.

II. Transportation Element

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and provides a strong sense of the overall image of the city.

OBJECTIVE 23
IMPROVE THE CITY'S PEDESTRIAN CIRCULATION SYSTEM TO PROVIDE FOR EFFICIENT, PLEASANT, AND SAFE MOVEMENT.

Policy 23.5
Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24
IMPROVE THE AMBIENCE OF THE PEDESTRIAN ENVIRONMENT.

Policy 24.4
Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to a new steel pole extant in the public sidewalk. The facility components are designed as an extension to the pole and equipment

boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the RH-2 District.

Conditions

1. Plant and maintain an appropriate street tree.

2. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.

3. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.

4. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.

5. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.

6. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.

7. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

8. Not utilize any visible flashing indicator lights or similar.

9. Not obstruct the view from, or the light into any adjacent residential window.

10. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.

11. Non-essential radio relay unit elements (handle and legs) shall be removed.

12. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and Department of Public Works).

13. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).

14. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Sincerely,

Ashley Lindsay

Ashley Lindsay
Planner

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

London N. Breed, Mayor
Grant Colfax, MD, Director of Health
Patrick Fosdahl, ME, REHS, Director of EH

December 10, 2020

TO: Leo Palacios, Dept. of Public Works, Bureau of Street Use and Mapping

FROM: Arthur Duque, Dept. Of Public Health, Environmental Health Services AD

RE: Verizon Wireless Pole Mounted Antennas, (1) CommScope Model VVSSP-360S-M
(3) Ericsson Model 6701 antennas

Location:	DPW Application:	Node#
1301 Revere Ave.	20WR-00055	466224 "SF Hunters Point 009"

As requested, I have reviewed the documentation that you and Verizon have provided to me regarding the proposed installation of (1) CommScope Model VVSSP-360S-M and (3) Ericsson 6701 antennas, on a Verizon-owned pole located at the above listed location in the City and County of San Francisco.

This review includes September 16, 2020 radio frequency energy report prepared by Hammett and Edison Inc. for this site. The report states that (1) CommScope Model VVSSP-360S-M 2-foot tall omnidirectional cylindrical antenna and (3) Ericsson 6701 antennas will be mounted on a Verizon-owned pole near the location listed above. The CommScope antenna will be at 33 feet above ground level. The Ericsson antennas will be 30 feet above ground level and points in the east, south, and northwest direction along Ingalls Street. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 653 watts.

The maximum calculated exposure level at the ground level will not exceed 0.013 mW/cm2, which is 1.3% of the FCC public exposure standard. The three-dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is calculated to be 15 feet from the face of the antennas and does not reach any publicly accessible areas. The maximum calculated exposure level at any nearby building is 4.6% of the FCC public exposure limit, 17 feet away.

Based on the information provided in the Hammett & Edison report, I would agree that these Verizon Wireless CommScope and Ericsson antennas, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by Hammett & Edison and was dated September 11, 2020. This evaluation found that the maximum noise level of 38.1 dBA will not be exceeded. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25.

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.

- Ensure that there are no publicly occupied areas within fifteen (15) feet from the face of the antennas.

- This approval is for the antennas directions listed in the report. If an additional direction is activated a new radio frequency report will be required.

- Once the antennas are installed, Verizon Wireless must take radio frequency power density measurements with the antenna operating at full power to verify the level reported in the Hammett & Edison report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.

- Verizon Wireless should be aware that the general public may have concerns about the antenna and potential radio frequency source near their dwellings. Verizon Wireless should have in place a procedure for taking radio frequency power density levels in nearby dwellings when requested by the members of the general public.

- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon Wireless is responsible for paying a fee of $210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

Verizon Wireless • Proposed Small Cell (No. 466224 "SF Hunters Point 009")
1301 Revere Avenue • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 466224 "SF Hunters Point 009") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated September 8, 2020. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2020

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install four antennas on a new steel pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install four 2-foot-tall antennas – one CommScope Model VVSSP-360S-M omnidirectional* cylindrical and three Ericsson Model 6701 directional panels with integrated radios – on a new 31-foot-tall steel pole to be sited in the public right-of-way on the northwest side of Ingalls Street about midblock between Revere and Shafter Avenues and 17 feet south of the two-story residence at 1301 Revere Avenue. The CommScope antenna would employ 2° downtilt and would be mounted on top of the pole at an effective height of about 33 feet above ground. The Ericsson antennas would employ no downtilt, would be mounted within a hexagonal shroud around the pole at an effective height of about 30 feet above ground, and would be oriented toward 80°T, 200°T, and 320°T, for service in all directions.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 653 watts, representing simultaneous operation at 230 watts each for AWS and PCS service from the CommScope antenna and at 193 watts in the 28 GHz band from the Ericsson antennas.

* Assumed to be omnidirectional, although manufacturer's patterns show reduced power in certain directions.

©2020

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at the second-floor elevation of any nearby building is 4.6% of the public exposure limit; this occurs at the adjacent building, about 17 feet away based on the drawings.

8. *Report the estimated cumulative radio frequency fields for the proposed site at ground level.*

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.013 mW/cm^2, which is 1.3% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.*

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 15 and 4½ feet out from the antennas, respectively, and to much lesser distances above and below; these do not reach any publicly accessible areas.

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.*

Due to their mounting locations and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

11. *Statement of authorship and qualification.*

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

©2020

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless near 1301 Revere Avenue in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Neil J. Olij, P.E.
707/996-5200

September 16, 2020

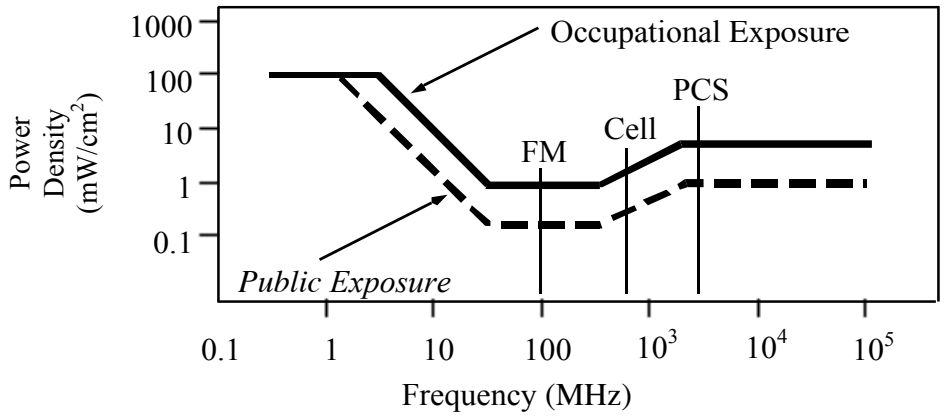
©2020

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

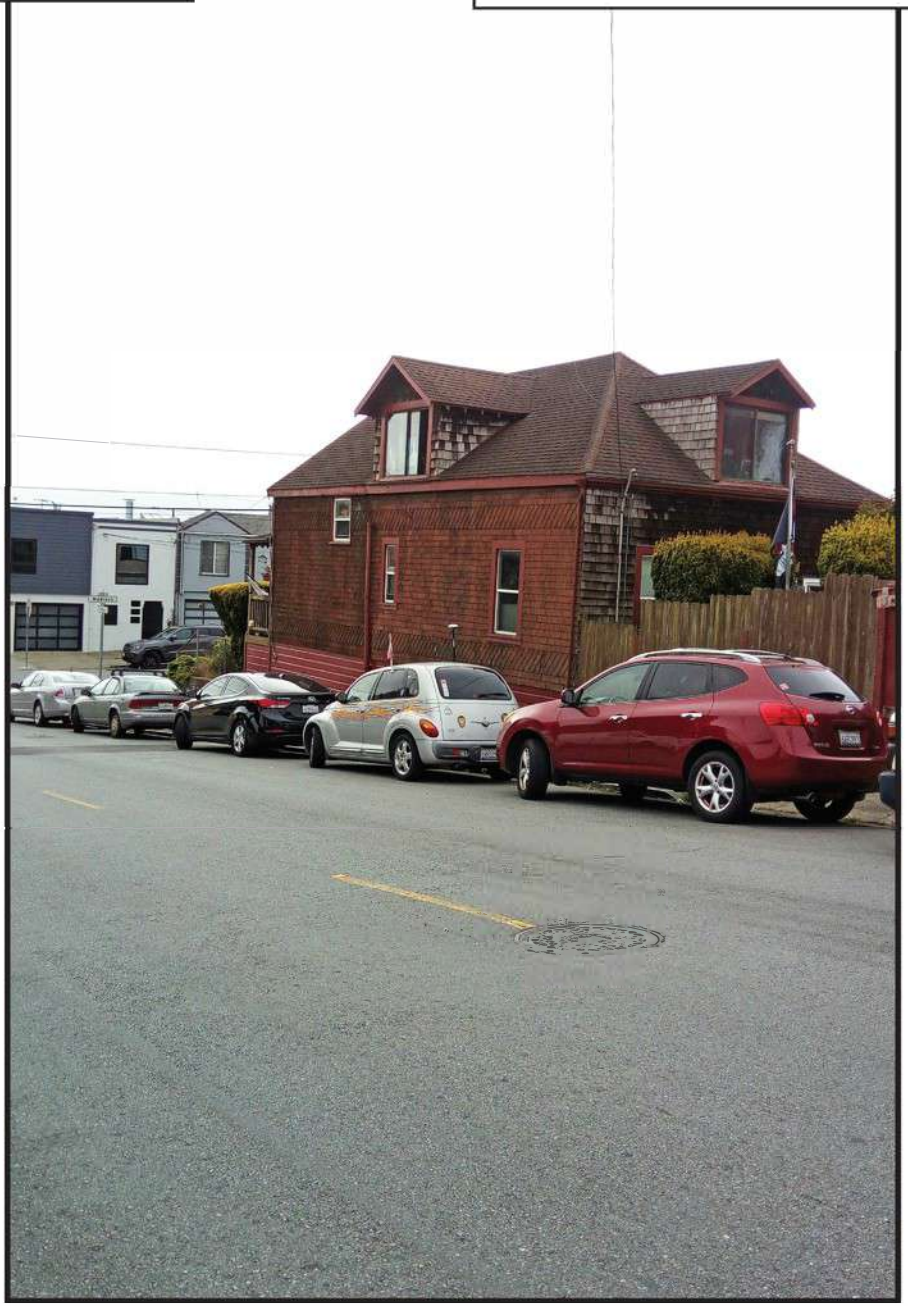
©2020

view from Felton Street looking southeast at site

verizon

SF Excelsior 005
Adjacent to 300 Madison Street,San Francisco, CA
Photosims Produced on 7-16-2020

Existing



Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

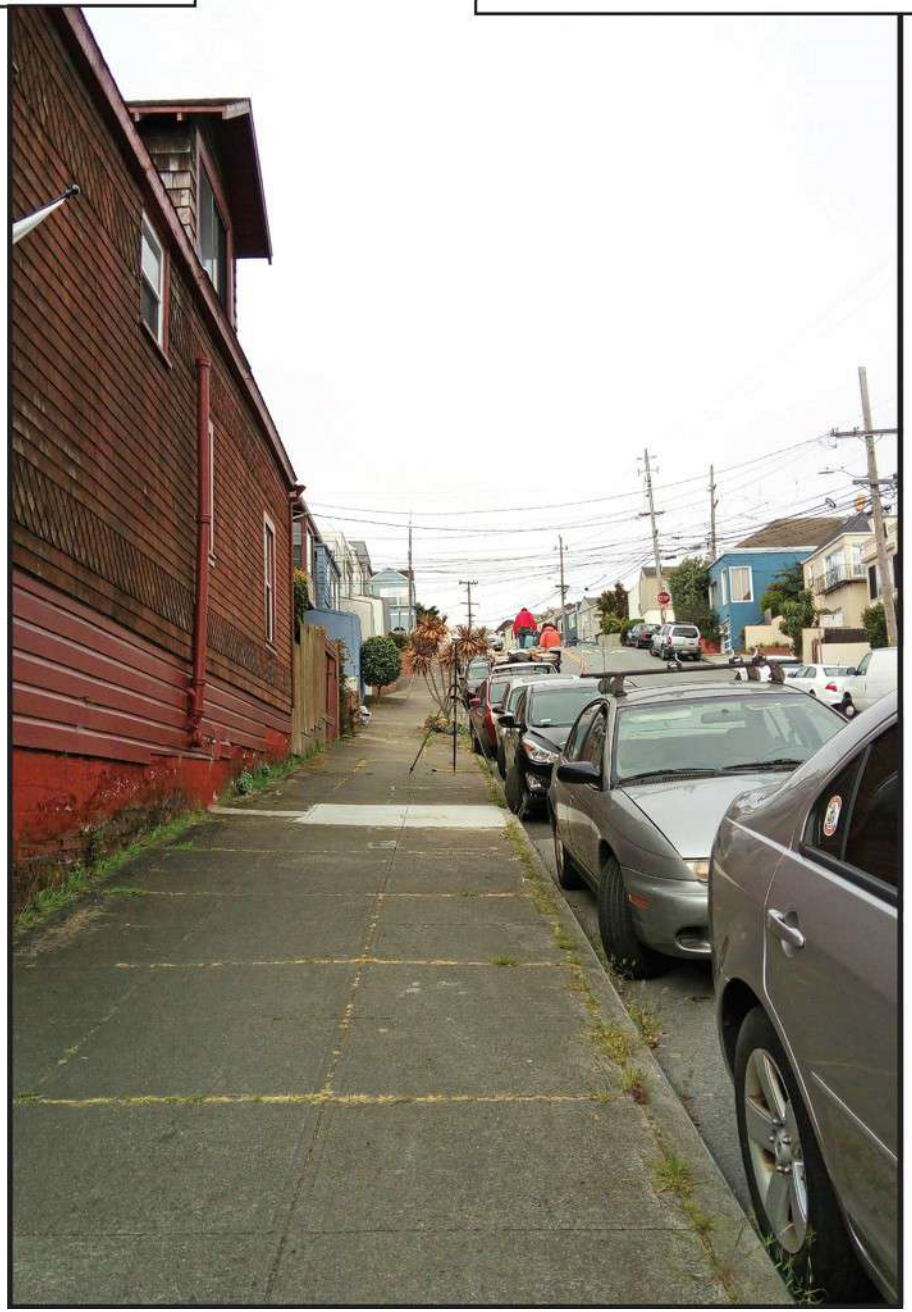
Exhibit C

view from Felton Street looking southwest at site

verizon

SF Excelsior 005
Adjacent to 300 Madison Street,San Francisco, CA
Photosims Produced on 7-16-2020

Existing



Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

628.652.7600
www.sfplanning.org

Date:	January 7, 2021
DPW Permit No.:	**20WR-00060**
Planning Case No:	2020-009516MIS
Project Address:	300 Madison St - Verizon PROW WTS Facility Installation Steel Pole owned by Verizon Wireless
Project Sponsor:	Modus for Verizon Wireless 240 Stockton St., 3rd Floor San Francisco, CA 94108 vznodassf@modus-corp.com
Staff Contact:	Ryan Balba – 628-652-7331 Ryan.Balba@sfgov.org

Determination:	**Approval with Conditions**

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location, and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

Determination

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD NOT significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated September 28, 2020 and photo simulations dated July 16, 2020 and associated with DPW Wireless Application No. 20WR-00060.

Findings

The proposed Tier B Personal Wireless Service Facility is to be located in the public right-of-way in a Planning and Zoning Protected Location, adjacent to 300 Madison St - Verizon PROW WTS Facility Installation, and on a street with Excellent Street Views.

The proposed Personal Wireless Service Facility is, on balance, consistent with Article 25 of the Public Works Code and the Objectives and Policies of the General Plan, as follows:

Article 25 Compliance

I. The proposed Personal Wireless Service Facility would not significantly impair the views of any of the important buildings, landmarks, open spaces, or parks that were the basis for the designation of the street as a view street. This site has been designated as having an Excellent view per the San Francisco General Plan.

II. The proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Residential or Neighborhood Commercial zoning district. This site is located within the RH- 1 zoning district.

The proposed Verizon Wireless personal wireless service facility would be situated within the RH-1 (Residential- House, One Family) district. The RH-1 District intended to recognize, protect, conserve and enhance areas characterized by dwellings in the form of houses, usually with one, two or three units with separate entrances, and limited scale in terms of building width and height. These Districts are occupied almost entirely by single-family houses on lots 25 feet in width, without side yards. Floor sizes and building styles vary, but tend to be uniform within tracts developed in distinct time periods. Though built on separate lots, the structures have the appearance of small-scale row housing, rarely exceeding 35 feet in height.

Planning has determined that the proposed Verizon Wireless personal wireless service facility is designed in a streamlined manner, as proposed it will be located on a new steel pole which would not significantly detract from any of the defining characteristics of the excellent street view or RH-1 (Residential- House, One Family) district.

General Plan Compliance

I. Urban Design Element

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1
EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

Policy 1.1
Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.9
Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14
Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation, and preserves the ability for an observer to perceive the City and its districts clearly.

II. Transportation Element

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and provides a strong sense of the overall image of the city.

OBJECTIVE 23
IMPROVE THE CITY'S PEDESTRIAN CIRCULATION SYSTEM TO PROVIDE FOR EFFICIENT, PLEASANT, AND SAFE MOVEMENT.

Policy 23.5
Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24
IMPROVE THE AMBIENCE OF THE PEDESTRIAN ENVIRONMENT.

Policy 24.4
Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to an existing light/utility pole extant in the public sidewalk. The facility components are designed as an extension to the pole and equipment boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the RH-1 Zoning District.

Conditions

1. Plant and maintain an appropriate street tree.

2. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.

3. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.

4. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.

5. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.

6. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.

7. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

8. Not utilize any visible flashing indicator lights or similar.

9. Not obstruct the view from, or the light into any adjacent residential window.

10. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.

11. Non-essential radio relay unit elements (handle and legs) shall be removed.

12. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and Department of Public Works).

13. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).

14. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Sincerely,

Ryan Balba

Ryan Balba
Planner I

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

London N. Breed, Mayor
Grant Colfax, MD, Director of Health
Patrick Fosdahl, ME, REHS, Director of EH

November 24, 2020

TO: Leo Palacios, Dept. of Public Works, Bureau of Street Use and Mapping

FROM: Arthur Duque, Dept. Of Public Health, Environmental Health Services AD

RE: Verizon Wireless Pole Mounted Antennas, (1) CommScope Model VVSSP-360S-M
(3) Ericsson Model 6701 antennas

Location:	DPW Application:	Node#
300 Madison St.	20WR-00060	454182 "Excelsior 005"

As requested, I have reviewed the documentation that you and Verizon have provided to me regarding the proposed installation of (1) CommScope Model VVSSP-360S-M and (3) Ericsson 6701 antennas, on a utility pole or similar structures located at the above listed location in the City and County of San Francisco.

This review includes September 16, 2020 radio frequency energy report prepared by Hammett and Edison Inc. for this site. The report states that (1) CommScope Model VVSSP-360S-M 2-foot tall omnidirectional cylindrical antenna and (3) Ericsson 6701 antennas will be mounted on a utility pole near the location listed above. The CommScope antenna will be at 33 feet above ground level. The Ericsson antennas will be 30 feet above ground level and points in the north, southeast, and west direction along Felton Street. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 653 watts.

The maximum calculated exposure level at the ground level will not exceed 0.023 mW/cm2, which is 2.3% of the FCC public exposure standard. The three-dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is calculated to be 15 feet from the face of the antennas and does not reach any publicly accessible areas. The maximum calculated exposure level at any nearby building is 5.4% of the FCC public exposure limit, 50 feet away.

Based on the information provided in the Hammett & Edison report, I would agree that these Verizon Wireless CommScope and Ericsson antennas, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by Hammett & Edison and was dated September 11, 2020. This evaluation found that the maximum noise level of 38.1 dBA will not be exceeded. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25.

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.

- Ensure that there are no publicly occupied areas within fifteen (15) feet from the face of the antennas.

- This approval is for the antennas directions listed in the report. If an additional direction is activated a new radio frequency report will be required.

- Once the antennas are installed, Verizon Wireless must take radio frequency power density measurements with the antenna operating at full power to verify the level reported in the Hammett & Edison report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.

- Verizon Wireless should be aware that the general public may have concerns about the antenna and potential radio frequency source near their dwellings. Verizon Wireless should have in place a procedure for taking radio frequency power density levels in nearby dwellings when requested by the members of the general public.

- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon Wireless is responsible for paying a fee of $210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

Verizon Wireless • Proposed Small Cell (No. 454182 "Excelsior 005")
300 Madison Street • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 454182 "Excelsior 005") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated September 8, 2020. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2020

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install four antennas on a new steel pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install four 2-foot-tall antennas – one CommScope Model VVSSP-360S-M omnidirectional* cylindrical and three Ericsson Model 6701 directional panels with integrated radios – on a new 31-foot-tall steel pole to be sited in the public right-of-way on the south side of Felton Street near the northwest corner of the two-story residence at 300 Madison Street. The CommScope antenna would employ 2° downtilt and would be mounted on top of the pole at an effective height of about 33 feet above ground. The Ericsson antennas would employ no downtilt, would be mounted within a hexagonal shroud around the pole at an effective height of about 30 feet above ground, and would be oriented toward 20°T, 140°T, and 260°T, for service in all directions.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 653 watts, representing simultaneous operation at 230 watts each for AWS and PCS service from the CommScope antenna and at 193 watts in the 28 GHz band from the Ericsson antennas.

* Assumed to be omnidirectional, although manufacturer's patterns show reduced power in certain directions.

©2020

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at the top-floor elevation of any nearby building is 5.4% of the public exposure limit; this occurs at the two-story residence at 1825 Felton Street, about 50 feet to the southwest. The maximum calculated level at the top-floor elevation of the adjacent building† is 3.2% of the public exposure limit.

8. *Report the estimated cumulative radio frequency fields for the proposed site at ground level.*

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.023 mW/cm^2, which is 2.3% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.*

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 15 and 4½ feet out from the antennas, respectively, and to much lesser distances above and below; these do not reach any publicly accessible areas.

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.*

Due to their mounting locations and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

11. *Statement of authorship and qualification.*

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

† Located at least 8 feet away, based on the drawings.

©2020

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless near 300 Madison Street in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Neil J. Olij, P.E.
707/996-5200

September 16, 2020

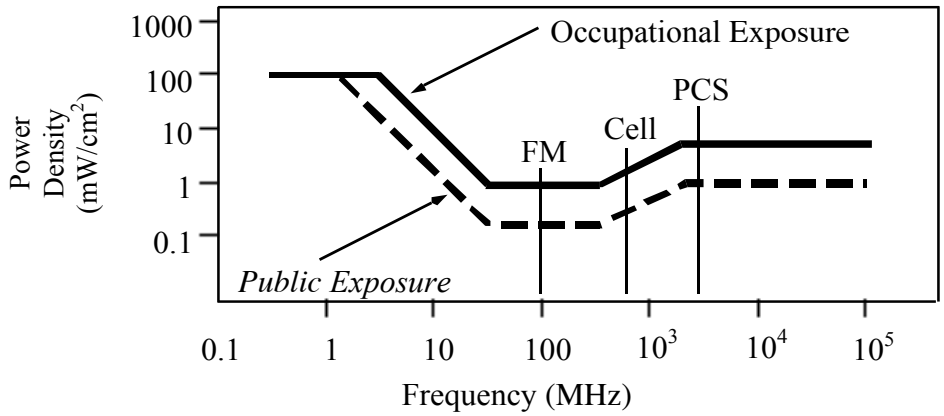
©2020

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

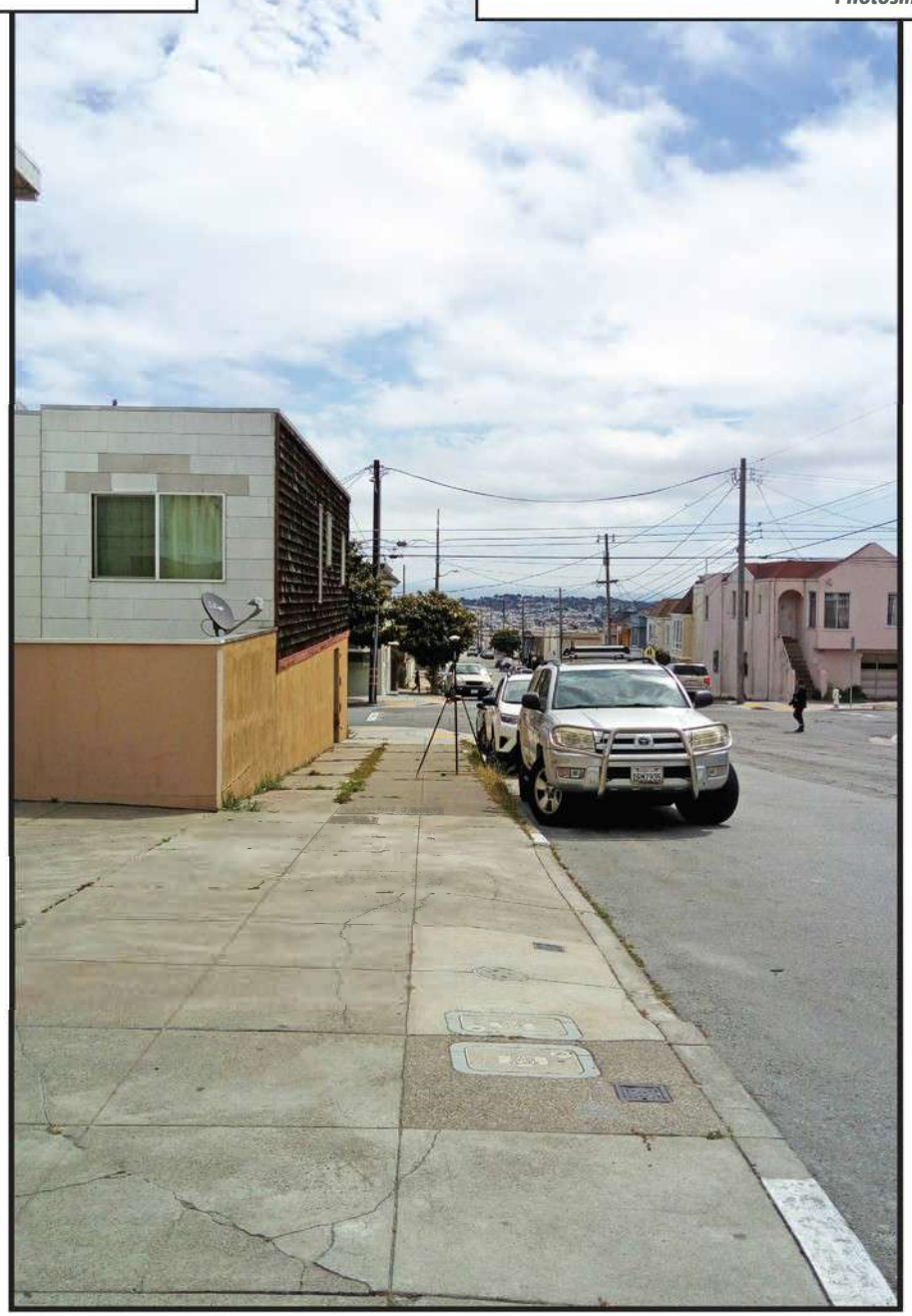
©2020

view from Silliman Street looking northeast at site

verizon

SF Excelsior 006
Adjacent to 1500 Silliman Street,San Francisco, CA
Photosims Produced on 7-16-2020

Existing



Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

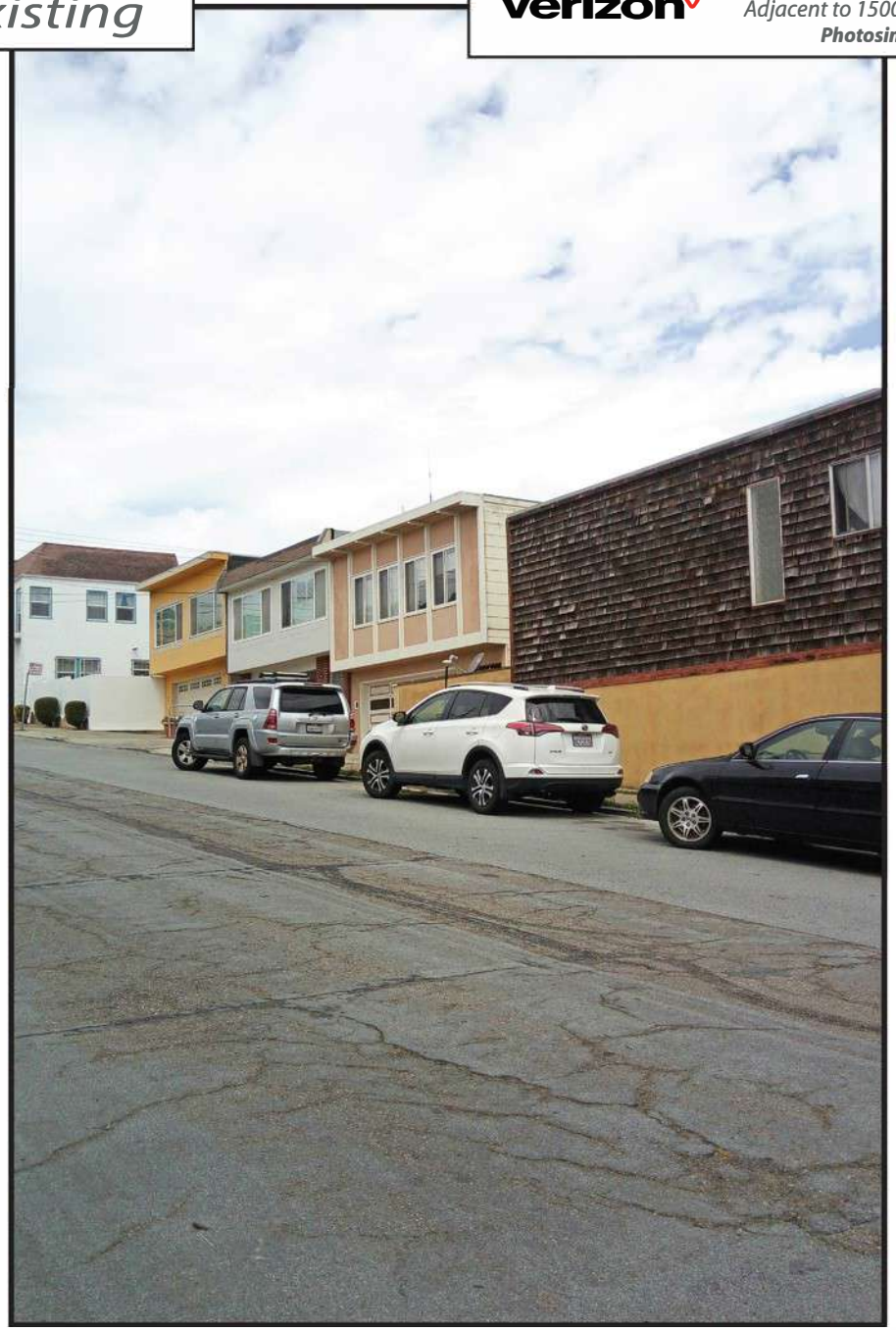
Exhibit D

view from Silliman Street looking northwest at site

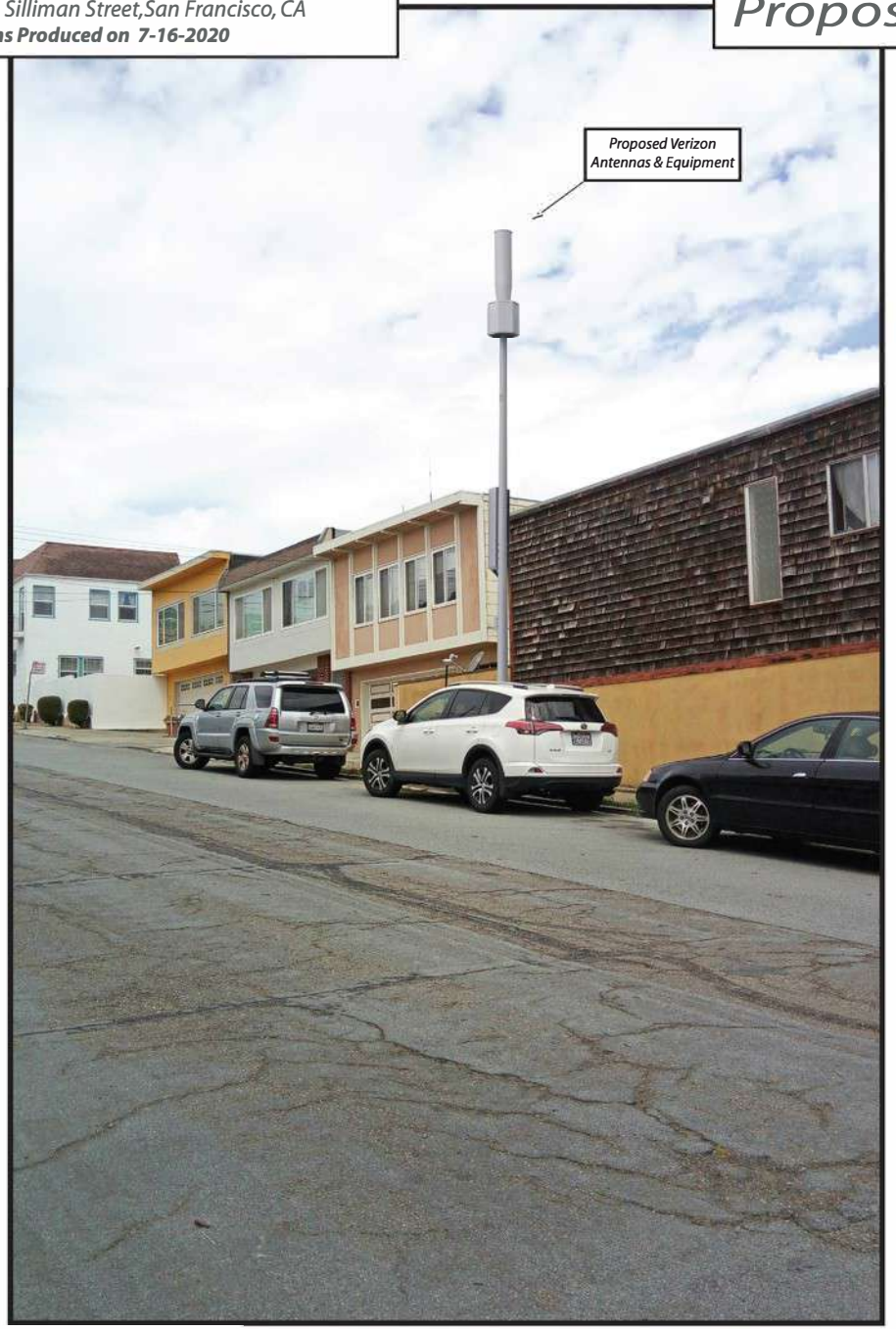
verizon

SF Excelsior 006
Adjacent to 1500 Silliman Street,San Francisco, CA
Photosims Produced on 7-16-2020

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Date:	November 10, 2020
DPW Permit No.:	**20WR-00059**
Planning Case No:	2020-009521MIS
Project Address:	1500 Silliman St - Verizon PROW WTS Facility Installation Steel Pole owned by Verizon Wireless
Project Sponsor:	Modus for Verizon Wireless 240 Stockton St., 3rd Floor San Francisco, CA 94108 verizonpolygonteam@modus-corp.com
Staff Contact:	Ashley Lindsay– 628-652-7360 Ashley.Lindsay@sfgov.org
Determination:	**Approval with Conditions**

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location, and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

Determination

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD NOT significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated September 28, 2020 and photo simulations dated July 16, 2020, and associated with DPW Wireless Application No. 20WR-00059.

Findings

The proposed Tier B Personal Wireless Service Facility is to be located in the public right-of-way in a Planning and Zoning Protected Location, adjacent to 1500 Silliman St - Verizon PROW WTS Facility Installation, and on a street with Excellent Street Views.

The proposed Personal Wireless Service Facility is, on balance, consistent with Article 25 of the Public Works Code and the Objectives and Policies of the General Plan, as follows:

Article 25 Compliance

(Planning protected – provide written analysis under applicable compatibility standard)

I. The proposed Personal Wireless Service Facility would not significantly impair the views of any of the important buildings, landmarks, open spaces, or parks that were the basis for the designation of the street as a view street. This site has been designated as having an Excellent view per the San Francisco General Plan.

II. The proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Residential or Neighborhood Commercial zoning district. This site is located within the insert zoning district.

The proposed Verizon Wireless personal wireless service facility would be situated within the RH-1 (Residential- House, One Family) district. The RH-1 District intended to recognize, protect, conserve and enhance areas characterized by dwellings in the form of houses, usually with one, two or three units with separate entrances, and limited scale in terms of building width and height. These Districts are occupied almost entirely by single-family houses on lots 25 feet in width, without side yards. Floor sizes and building styles vary, but tend to be uniform within tracts developed in distinct time periods. Though built on separate lots, the structures have the appearance of small-scale row housing, rarely exceeding 35 feet in height.

Planning has determined that the proposed Verizon Wireless personal wireless service facility is designed in a streamlined manner, as proposed it will be located on a new steel pole which would not significantly detract from any of the defining characteristics of the excellent street view or RH-1 (Residential- House, One Family) district.

General Plan Compliance

I. Urban Design Element

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1
EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

Policy 1.1

Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.9
Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14
Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation, and preserves the ability for an observer to perceive the City and its districts clearly.

II. Transportation Element

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and provides a strong sense of the overall image of the city.

OBJECTIVE 23
IMPROVE THE CITY'S PEDESTRIAN CIRCULATION SYSTEM TO PROVIDE FOR EFFICIENT, PLEASANT, AND SAFE MOVEMENT.

Policy 23.5
Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24
IMPROVE THE AMBIENCE OF THE PEDESTRIAN ENVIRONMENT.

Policy 24.4
Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to a new steel pole extant in the public sidewalk. The facility components are designed as an extension to the pole and equipment boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the RH-1 District.

Conditions

1. Plant and maintain an appropriate street tree.

2. No exposed meter, meter pan or meter pedestal may be used.

3. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.

4. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.

5. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.

6. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.

7. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.

8. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

9. Not utilize any visible flashing indicator lights or similar.

10. Not obstruct the view from, or the light into any adjacent residential window.

11. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.

12. Non-essential radio relay unit elements (handle and legs) shall be removed.

13. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and Department of Public Works).

14. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).

15. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Sincerely,

Ashley Lindsay

Ashley Lindsay
Planner

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

London N. Breed, Mayor
Grant Colfax, MD, Director of Health
Patrick Fosdahl, REHS, ME, Director of EH

December 30, 2020

TO: Leo Palacios, Dept. of Public Works, Bureau of Street Use and Mapping

FROM: Arthur Duque, Dept. Of Public Health, Environmental Health Services AD

RE: Verizon Pole Mounted Antennas, (1) Galtronics Model GC2410-06977 & (3) Ericsson 6701 antennas

Location:	DPW Application:	Node#
1500 Silliman St.	20WR-00059	454183 "Excelsior 006"

As requested, I have reviewed the documentation that you and Verizon have provided to me regarding the proposed installation of (1) Galtronics Model GC2410-06977 & (2) Ericsson 6701 antennas, on a Verizon-owned pole located at the above listed location in the City and County of San Francisco.

This review includes September 16, 2020 radio frequency energy report prepared by Hammett and Edison Inc. for this site. The report states that (1) Galtronics Model GC2410-06977 & (3) Ericsson 6701 antennas will be mounted on a Verizon-owned pole. The Galtronics antenna will be 33 feet above ground level and points in the east and west direction along Silliman Street. The Ericsson antennas will be 30 feet above ground level and points in the north, southeast, and southwest directions along Silliman Street. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 1,093 watts.

The maximum calculated exposure level at the ground level will not exceed 0.024 mW/cm2, which is 2.4% of the FCC public exposure standard. The three-dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is 19 feet from the face of the antennas and does not reach any publicly accessible areas. The maximum calculated exposure level at the adjacent building is 4.6% of the FCC public limit, 70 feet away.

Based on the information provided in the Hammett and Edison report, I would agree that these Galtronics and Ericsson antennas, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by Hammett & Edison and was dated September 11, 2020. This evaluation found that the maximum noise level from (3) Ericsson Model 6701 units is 38.1 dBA at a reference distance of 5 feet meaning that the applicable noise limit would be met for the configuration described above when placed at least 5½ feet away from any building façade. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.

- Ensure that there are no publicly occupied areas within nineteen (19) from the face of the antennas.

- Once the antenna is installed, Verizon must take radio frequency power density measurements with the antenna operating at full power to verify the level reported in the Hammett and Edison report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.

- Verizon should be aware that the general public may have concerns about the antenna and potential RF source near their dwellings. should have in place a procedure for taking radio frequency power density levels in nearby dwellings when requested by the members of the general public.

- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon is responsible for paying a fee of $210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

Verizon Wireless • Proposed Small Cell (No. 454183 "Excelsior 006")
1500 Silliman Street • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 454183 "Excelsior 006") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated September 9, 2020. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2020

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install four antennas on a new steel pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install four 2-foot-tall antennas – one Galtronics Model GC2410-06977 directional cylindrical and three Ericsson Model 6701 directional panels with integrated radios – on a new 31-foot-tall steel pole to be sited in the public right-of-way on the north side of Silliman Street in front of the two-story residence at 1500 Silliman Street. The Galtronics antenna would employ no downtilt, would be mounted on top of the pole at an effective height of about 33 feet above ground, and would be oriented with its principal directions toward 70°T and 250°T. The Ericsson antennas would employ no downtilt, would be mounted within a hexagonal shroud around the pole at an effective height of about 30 feet above ground, and would be oriented toward 0°T, 120°T, and 240°T, for service in all directions.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 1,093 watts, representing simultaneous operation at 450 watts each for AWS and PCS service from the Galtronics antenna and at 193 watts in the 28 GHz band from the Ericsson antennas.

©2020

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at the second-floor elevation of any nearby building is 4.6% of the public exposure limit; this occurs at the two-story residence at 1532 Silliman Street, about 70 feet to the west. The maximum calculated level at the second-floor elevation of the adjacent building* is 1.1% of the public exposure limit.

8. *Report the estimated cumulative radio frequency fields for the proposed site at ground level.*

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.024 mW/cm^2, which is 2.4% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.*

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 19 and 9 feet out from the antennas, respectively, and to much lesser distances above and below; these do not reach any publicly accessible areas.

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.*

Due to their mounting locations and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

11. *Statement of authorship and qualification.*

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

* Located at least 8 feet away, based on the drawings.

©2020

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless near 1500 Silliman Street in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Neil J. Olij, P.E.
707/996-5200

September 16, 2020

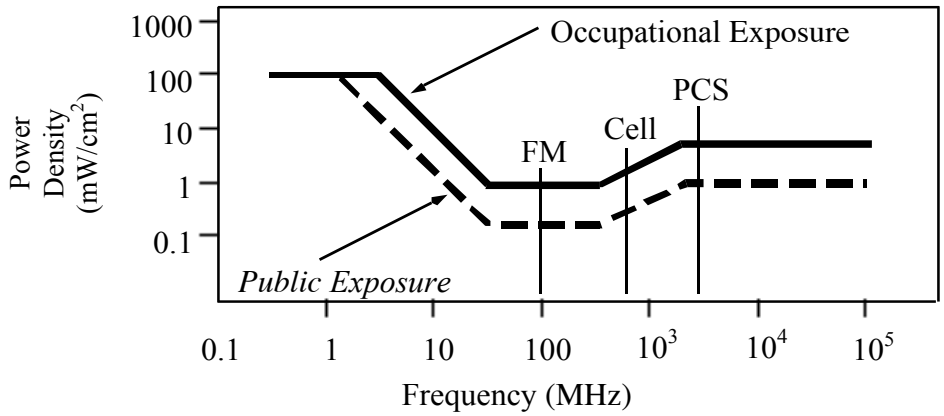
©2020

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

view from Burrows Street looking northeast at site

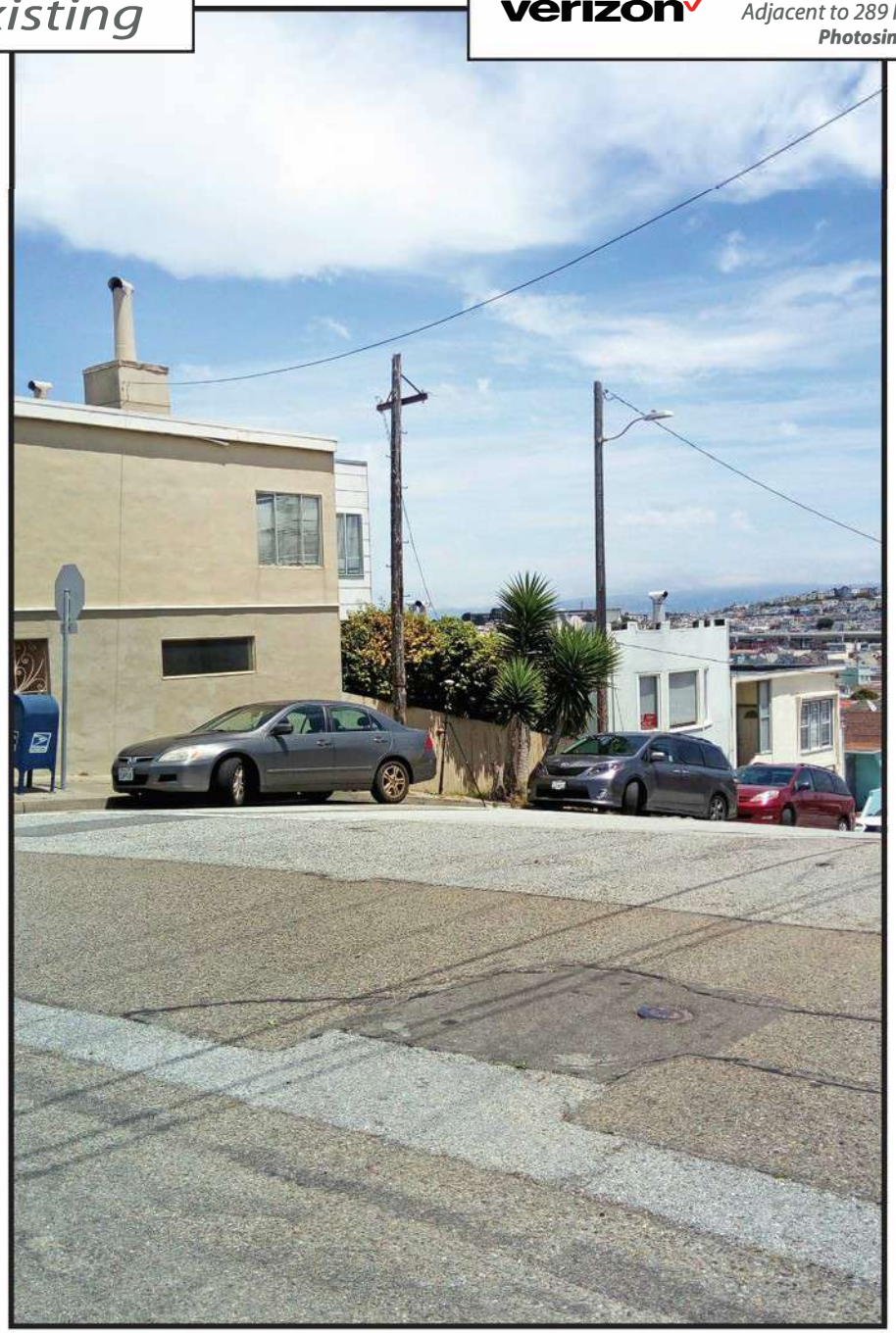
verizon

SF Excelsior 012

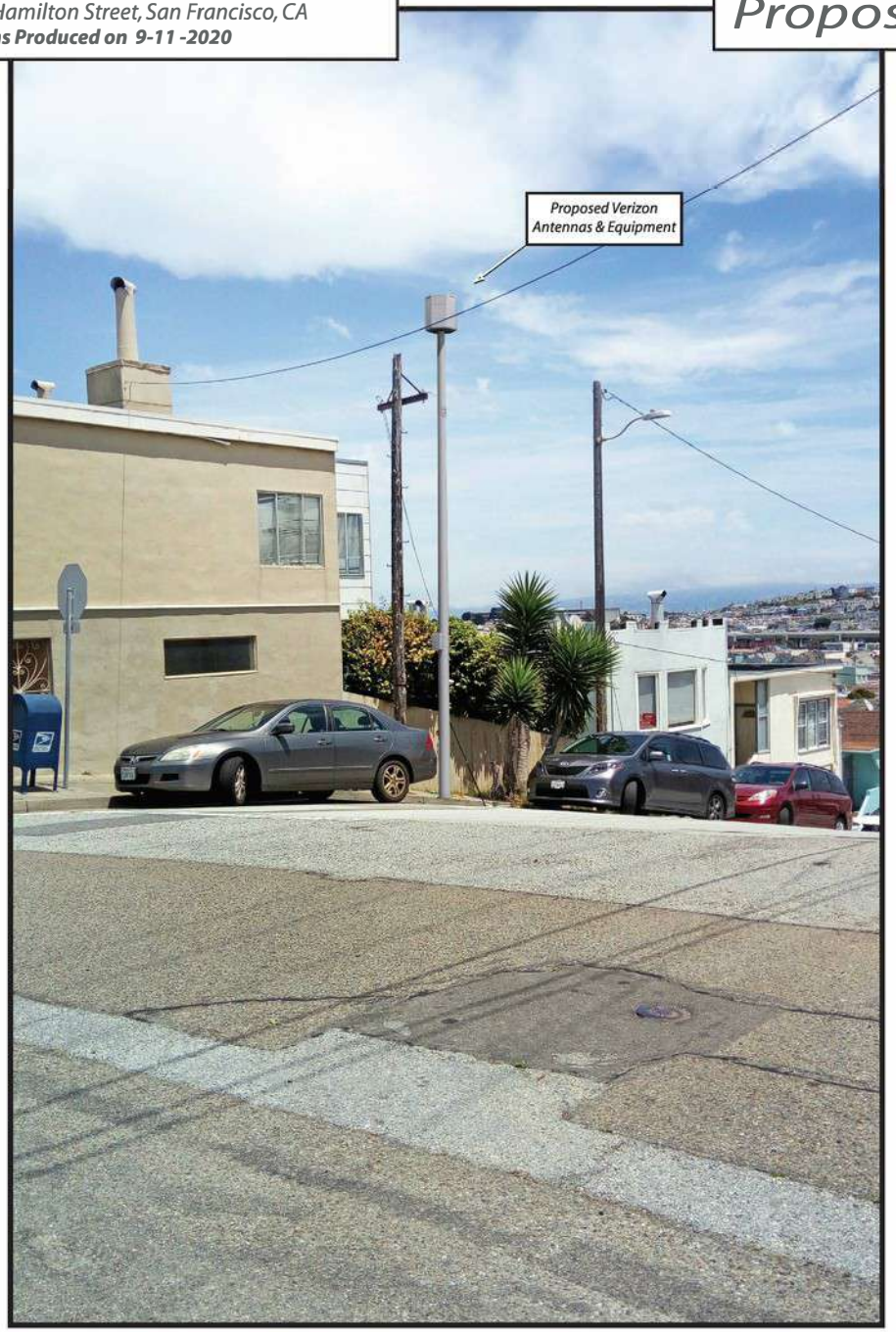
Adjacent to 289 Hamilton Street, San Francisco, CA

Photosims Produced on 9-11 -2020

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

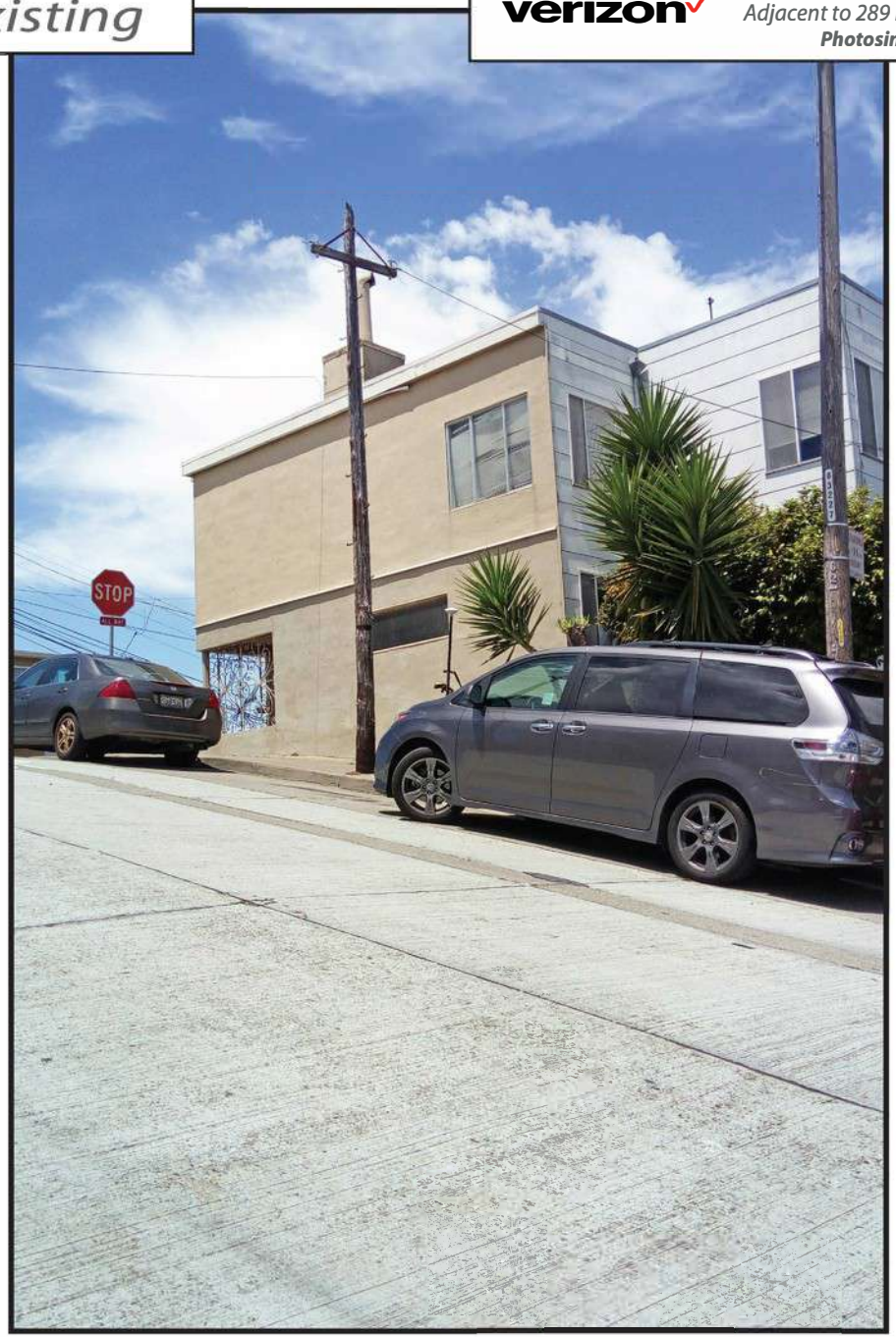
Exhibit E

view from Burrows Street looking northwest at site

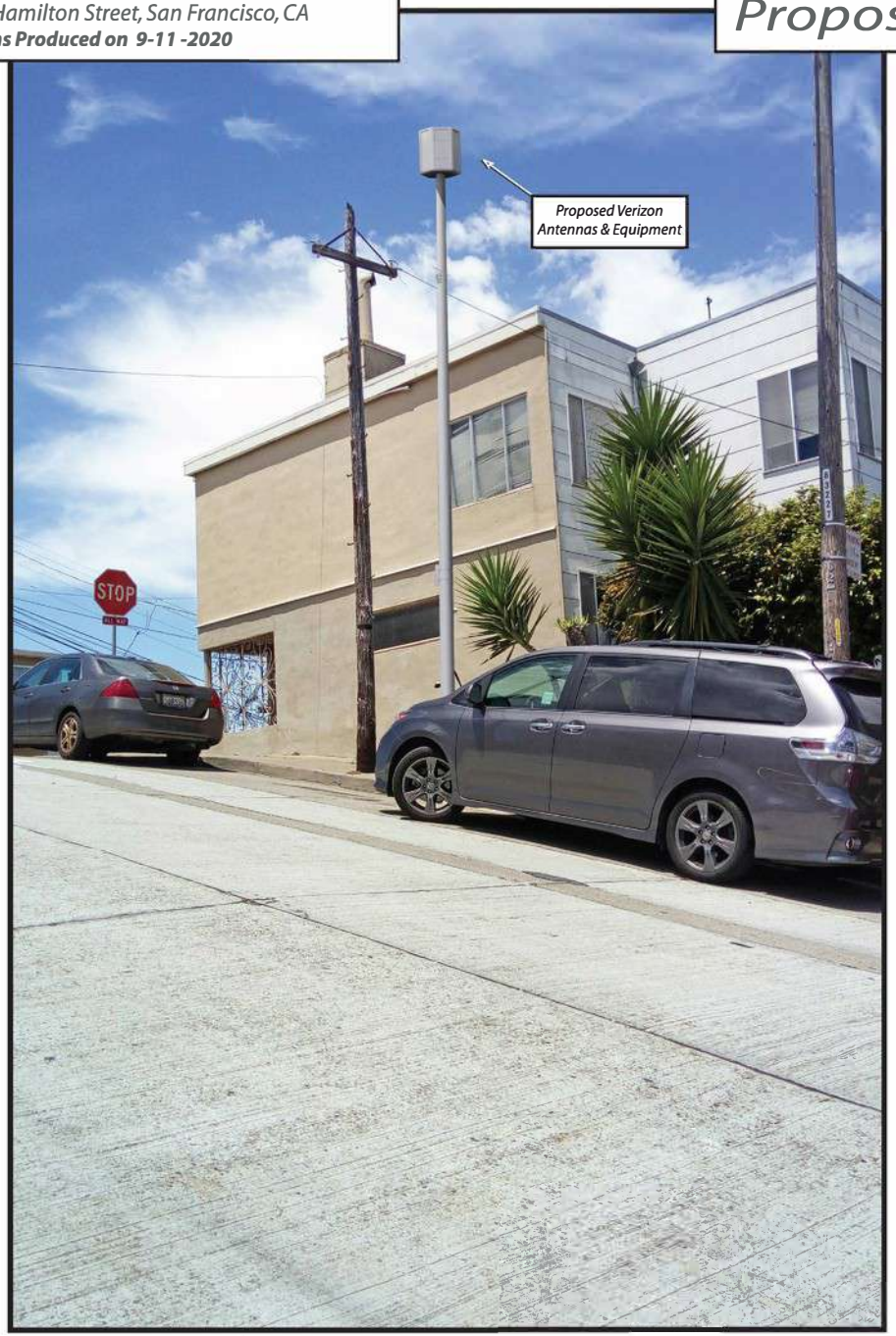
verizon

SF Excelsior 012
Adjacent to 289 Hamilton Street, San Francisco, CA
Photosims Produced on 9-11 -2020

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Date:	January 7, 2021
DPW Permit No.:	**20WR-00058**
Planning Case No:	2020-009522MIS
Project Address:	289 Hamilton St - Verizon PROW WTS Facility Installation Steel Pole owned by Verizon Wireless
Project Sponsor:	Modus for Verizon Wireless 240 Stockton St., 3rd Floor San Francisco, CA 94108 vznodassf@modus-corp.com
Staff Contact:	Ryan Balba – 628-652-7331 Ryan.Balba@sfgov.org
Determination:	**Approval with Conditions**

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location, and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

Determination

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD NOT significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated September 29, 2020 and photo simulations dated September 11, 2020 and associated with DPW Wireless Application No. 20WR-00058.

Findings

The proposed Tier B Personal Wireless Service Facility is to be located in the public right-of-way in a Zoning Protected Location, adjacent to 289 Hamilton St - Verizon PROW WTS Facility Installation, and on a street with Undesignated Street Views.

The proposed Personal Wireless Service Facility is, on balance, consistent with Article 25 of the Public Works Code and the Objectives and Policies of the General Plan, as follows:

Article 25 Compliance

I. The proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Residential or Neighborhood Commercial zoning district. This site is located within the RH- 1 zoning district.

The proposed Verizon Wireless personal wireless service facility would be situated within the RH-1 (Residential- House, One Family) district. The RH-1 District intended to recognize, protect, conserve and enhance areas characterized by dwellings in the form of houses, usually with one, two or three units with separate entrances, and limited scale in terms of building width and height. These Districts are occupied almost entirely by single-family houses on lots 25 feet in width, without side yards. Floor sizes and building styles vary, but tend to be uniform within tracts developed in distinct time periods. Though built on separate lots, the structures have the appearance of small-scale row housing, rarely exceeding 35 feet in height.

Planning has determined that the proposed Verizon Wireless personal wireless service facility is designed in a streamlined manner, as proposed it will be located on a new steel pole which would not significantly detract from any of the defining characteristics of the undesignated street view RH-1 (Residential-House, One Family) district.

General Plan Compliance

I. Urban Design Element

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1
EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

Policy 1.1
Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.9
Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14
Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation, and preserves the ability for an observer to perceive the City and its districts clearly.

II. Transportation Element

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and provides a strong sense of the overall image of the city.

OBJECTIVE 23
IMPROVE THE CITY'S PEDESTRIAN CIRCULATION SYSTEM TO PROVIDE FOR EFFICIENT, PLEASANT, AND SAFE MOVEMENT.

Policy 23.5
Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24
IMPROVE THE AMBIENCE OF THE PEDESTRIAN ENVIRONMENT.

Policy 24.4
Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to an existing light/utility pole extant in the public sidewalk. The facility components are designed as an extension to the pole and

equipment boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the RH-1 Zoning District.

Conditions

1. Plant and maintain an appropriate street tree.

2. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.

3. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.

4. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.

5. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.

6. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.

7. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

8. Not utilize any visible flashing indicator lights or similar.

9. Not obstruct the view from, or the light into any adjacent residential window.

10. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.

11. Non-essential radio relay unit elements (handle and legs) shall be removed.

12. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and Department of Public Works).

13. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).

14. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Sincerely,

Ryan Balba

Ryan Balba
Planner I

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

London N. Breed, Mayor
Grant Colfax, MD, Director of Health
Patrick Fosdahl, REHS, ME, Director of EH

January 11, 2021

TO: Leo Palacios, Dept. of Public Works, Bureau of Street Use and Mapping

FROM: Arthur Duque, Dept. Of Public Health, Environmental Health Services AD

RE: Verizon Pole Mounted Antennas, (2) Ericsson 6701 antennas

Location:	DPW Application:	Node#
289 Hamilton St.	20WR-00058	454189 "Excelsior 012"

As requested, I have reviewed the documentation that you and Verizon have provided to me regarding the proposed installation of (2) Ericsson 6701 antennas, on a Verizon owned pole or similar structures located at the above listed location in the City and County of San Francisco.

This review includes September 11, 2020 radio frequency energy report prepared by Hammett and Edison Inc. for this site. The report states that (2) Ericsson 6701 antennas will be mounted on a Verizon owned pole near the location listed above. The Ericsson antennas will be 28½ feet above ground level and points in the east and west direction along Burrows Street. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 193 watts.

The maximum calculated exposure level at the ground level will not exceed 0.010 mW/cm2, which is 1.0% of the FCC public exposure standard. The three-dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is 8 feet from the Ericsson antennas, and does not reach any publicly accessible areas. The maximum calculated exposure level at the adjacent building is 2.1% of the FCC public limit, 8 feet away.

Based on the information provided in the Hammett and Edison report, I would agree that these Ericsson antennas, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by Hammett & Edison and was dated September 11, 2020. This evaluation found that the maximum noise level from three Ericsson Model 6701 units is 38.1 dBA at a reference distance of 5 feet meaning that the applicable noise limit would be met for the configuration described above when placed at least 5½ feet away from any building façade. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25.

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.

- Ensure that there are no publicly occupied areas within eight (8) from the face of the Ericsson antennas.

- Once the antenna is installed, Verizon must take RF power density measurements with the antenna operating at full power to verify the level reported in the Hammett and Edison report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.

- Verizon should be aware that the general public may have concerns about the antenna and potential RF source near their dwellings. should have in place a procedure for taking RF power density levels in nearby dwellings when requested by the members of the general public.

- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon is responsible for paying a fee of $210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

Verizon Wireless • Proposed Small Cell (No. 454189 "Excelsior 012")
289 Hamilton Street • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 454189 "Excelsior 012") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated September 9, 2020. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2020

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install two antennas on a new steel pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install two Ericsson Model 6701, 2-foot tall, directional panel antennas with integrated radios within a hexagonal shroud around the top of a new 29-foot-tall steel pole to be sited in the public right-of-way on the north side of Burrows Street adjacent to the two-story residence at 289 Hamilton Street. The antennas would employ no downtilt, would be mounted at an effective height of about 28½ feet above ground, and would be oriented toward 70°T and 250°T.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 193 watts in the 28 GHz band.

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at the top-floor elevation of any nearby building is 2.1% of the public exposure limit; this occurs at the adjacent residence, about 8 feet away based on the drawings.

©2020

8. Report the estimated cumulative radio frequency fields for the proposed site at ground level.

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.010 mW/cm^2, which is 1.0% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 8 and 2 feet out from the antennas, respectively, and to much lesser distances above and below; these do not reach any publicly accessible areas.

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.

Due to their mounting location and height, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

11. Statement of authorship and qualification.

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

©2020

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless near 289 Hamilton Street in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Neil J. Olij, P.E.
707/996-5200

September 11, 2020

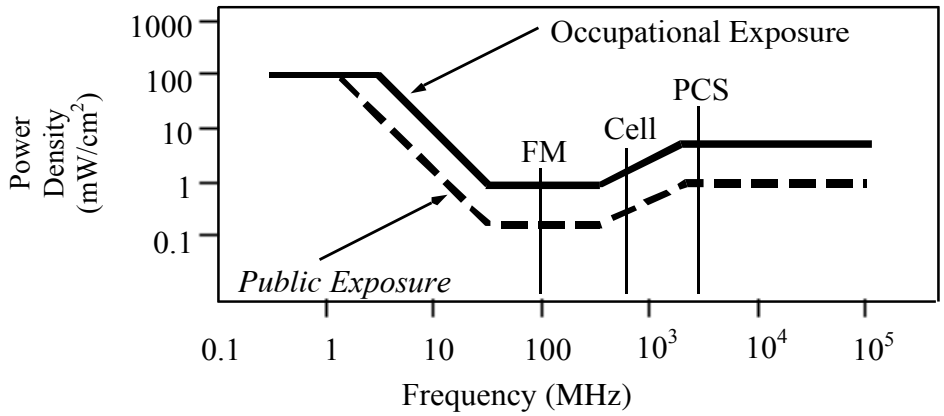
©2020

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

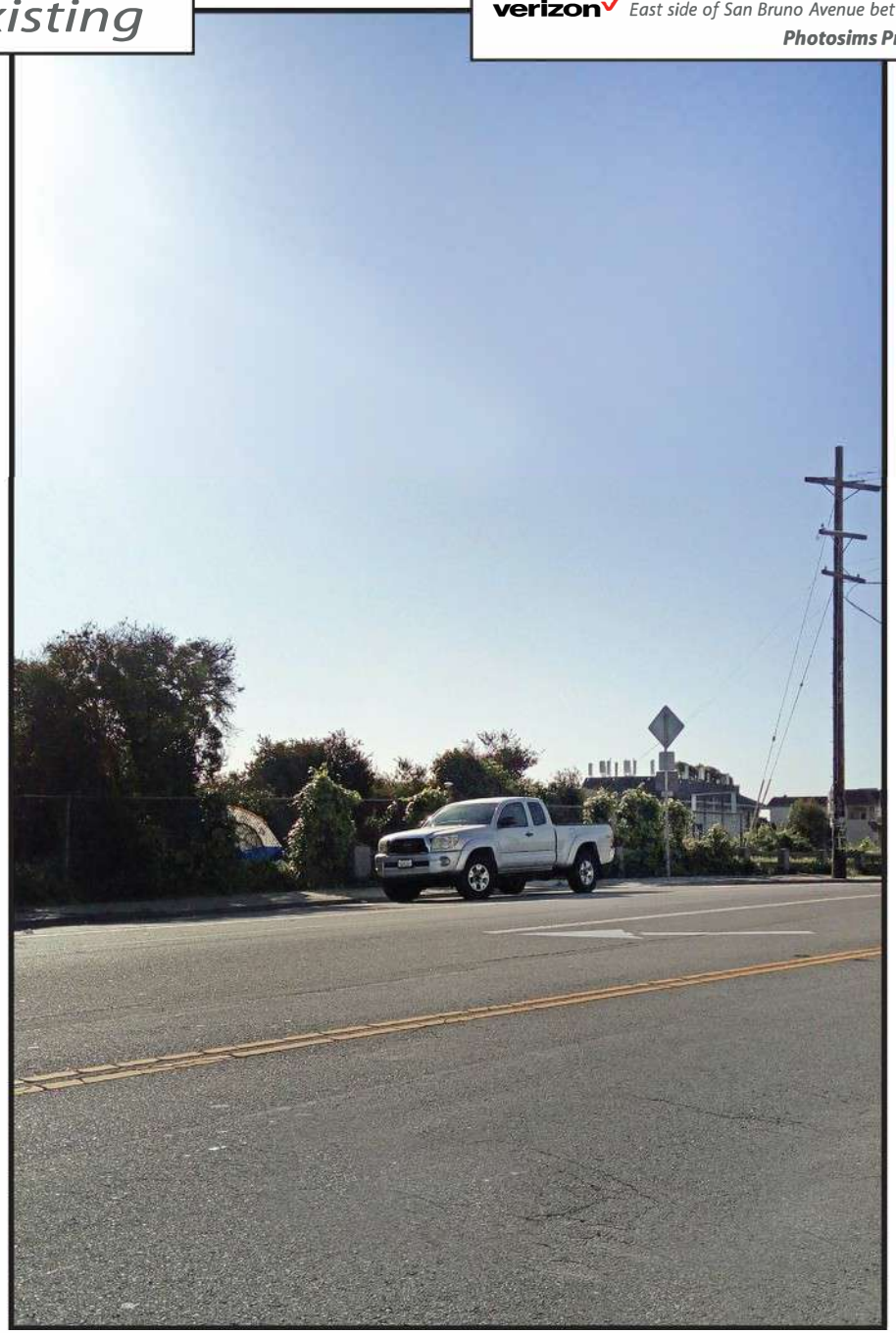
view from San Bruno Avenue looking southeast at site

SF Excelsior 082

verizon *East side of San Bruno Avenue between 3rd St / Campbell Avenue, San Francisco, CA*

Photosims Produced on 5-14-2021

Existing



Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Exhibit F

view from San Bruno Avenue looking northeast at site

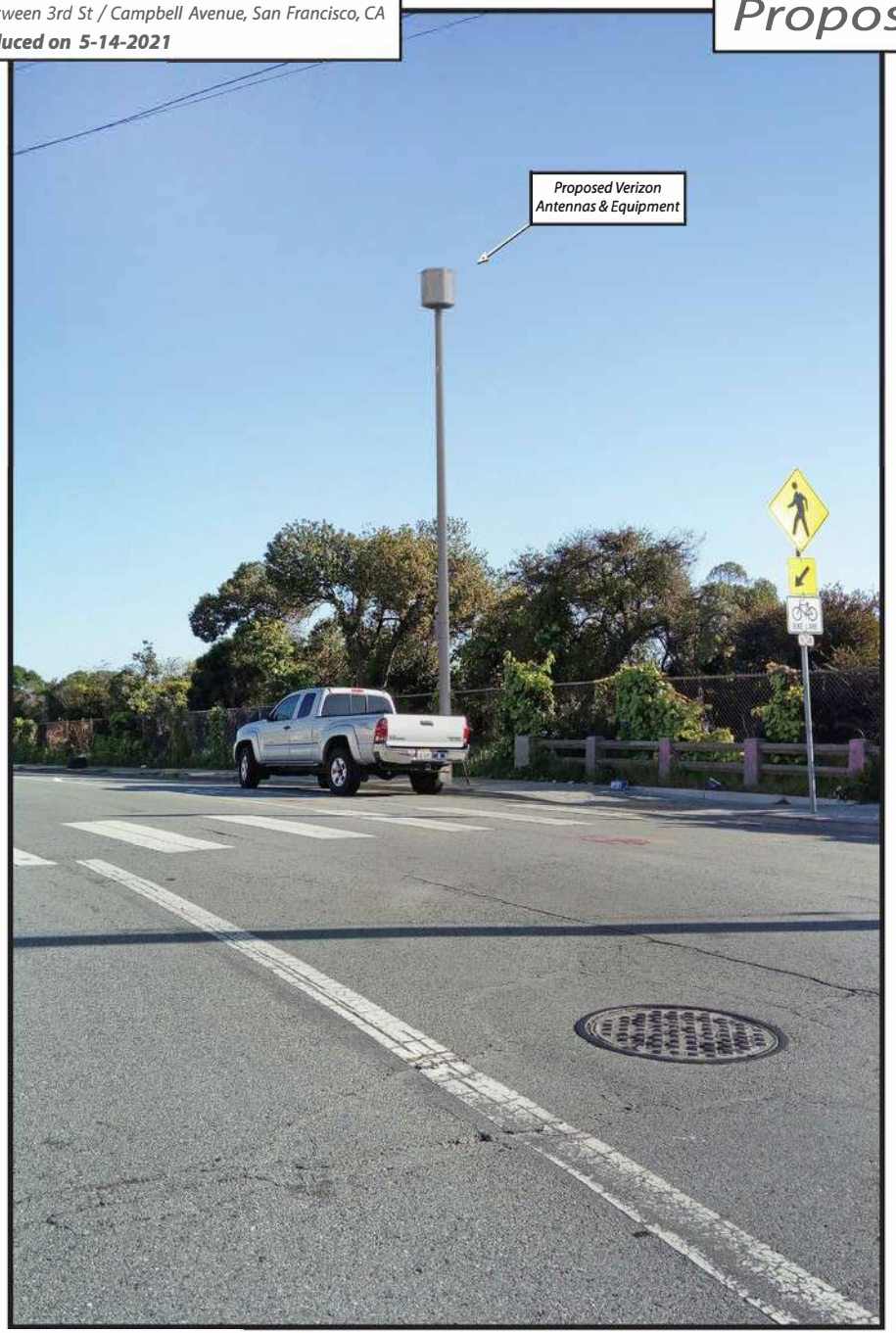
SF Excelsior 082

verizon *East side of San Bruno Avenue between 3rd St / Campbell Avenue, San Francisco, CA*

Photosims Produced on 5-14-2021

Existing

Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Verizon Wireless • Proposed Small Cell (No. 675458 "CA_SF_Excelsior_082")
East Side of San Bruno Avenue between Third/Girard Streets & Campbell Avenue
San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 675458 "CA_SF_Excelsior_082") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated May 18, 2021. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2021

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site in the public right-of-way on the east side of San Bruno Avenue about 14 feet north of the crosswalk at the intersection with Campbell Avenue.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install a new pole and to install three antennas on the pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install three Ericsson Model 6701, 2-foot tall, directional panel antennas on top of the pole. The antennas would employ up to 15° downtilt, would be mounted at an effective height of about 29½ feet above ground, and would be oriented toward 10°T, 130°T, and 250°T, in order to provide service in all directions.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 343 watts* in the 28 GHz band.

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at any nearby building is 1.4% of the public exposure limit; this occurs at the nearest residence, about 70 feet to the west, across San Bruno Avenue.

* This is the maximum effective radiated power. The manufacturer reports that the antenna transmits 72.1% of the time in this band; this factor is incorporated into the calculation methodology.

©2021

8. Report the estimated cumulative radio frequency fields for the proposed site at ground level.

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.0058 mW/cm^2, which is 0.58% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 9 and 2½ feet out from the antennas, respectively, and to much lesser distances above, below, and to the sides; these do not reach any publicly accessible areas.

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.

Due to their mounting locations and height, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training be provided to all workers who have access within 9 feet outward from the antennas. No access within 2½ feet directly in front of the antennas should be allowed while they are in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs† be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach.

11. Statement of authorship and qualification.

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

† Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter; the San Francisco Department of Public Health recommends that all signs be written in English, Spanish, and Chinese.

©2021

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of this small cell proposed by Verizon Wireless at the intersection of San Bruno and Campbell Avenues in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

William F. Hammett, P.E.
707/996-5200

May 26, 2021

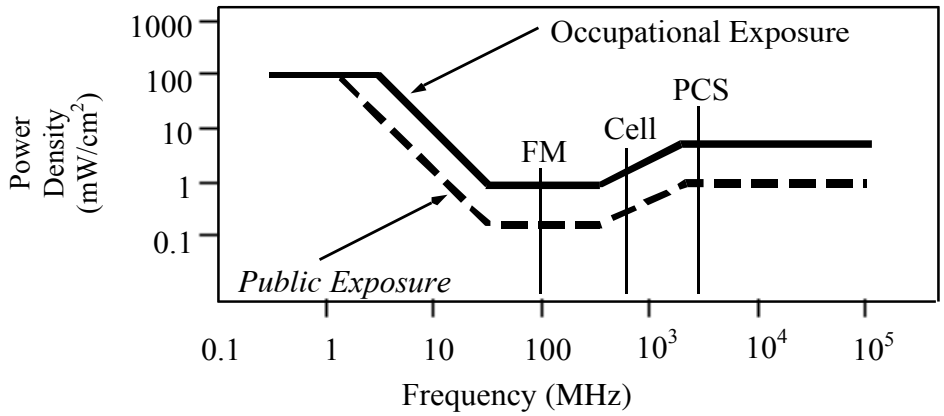
©2021

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

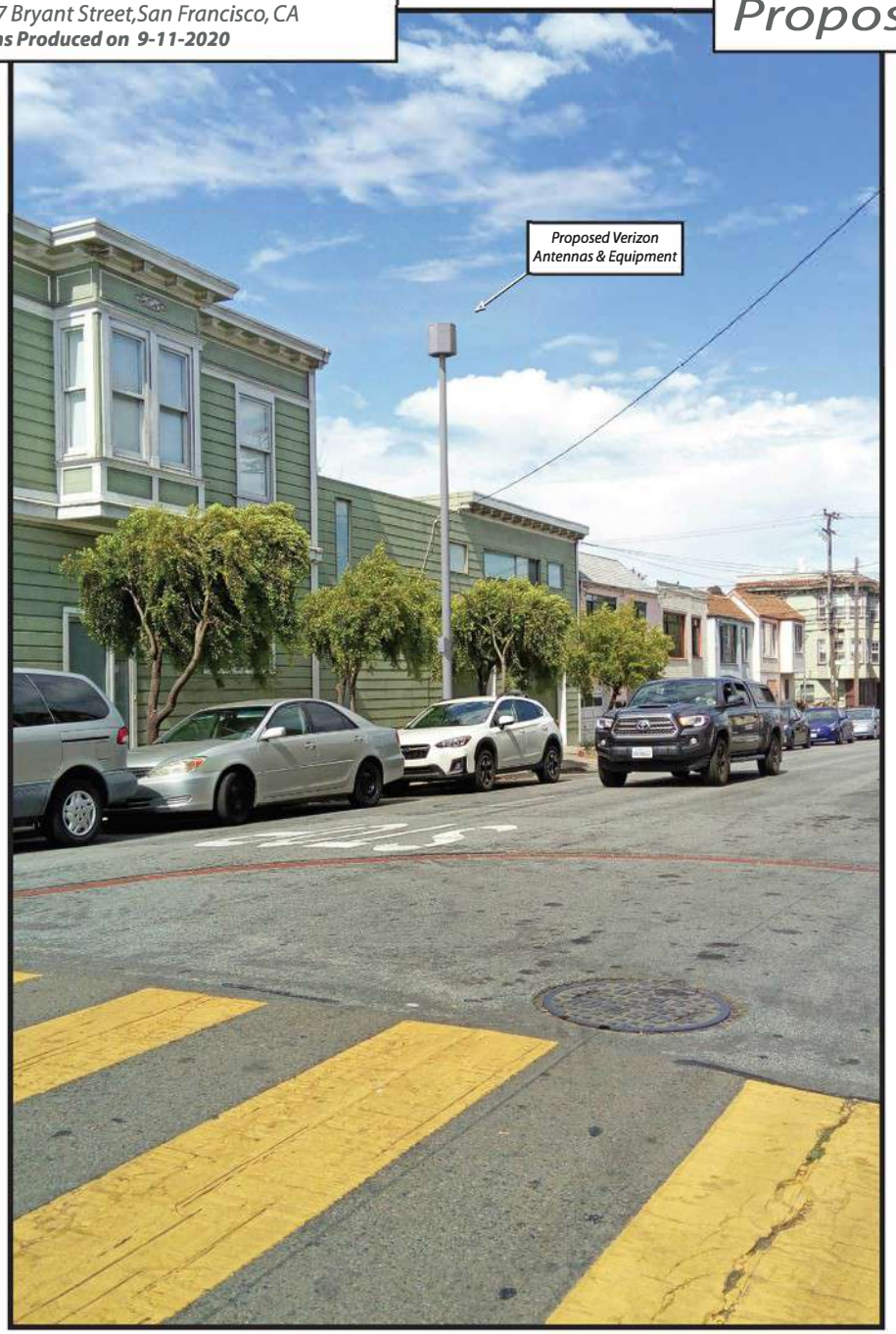
view from 26th Street looking northeast at site

verizon

SF Noe Valley 047
Adjacent to 2797 Bryant Street,San Francisco, CA
Photosims Produced on 9-11-2020

Existing

Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

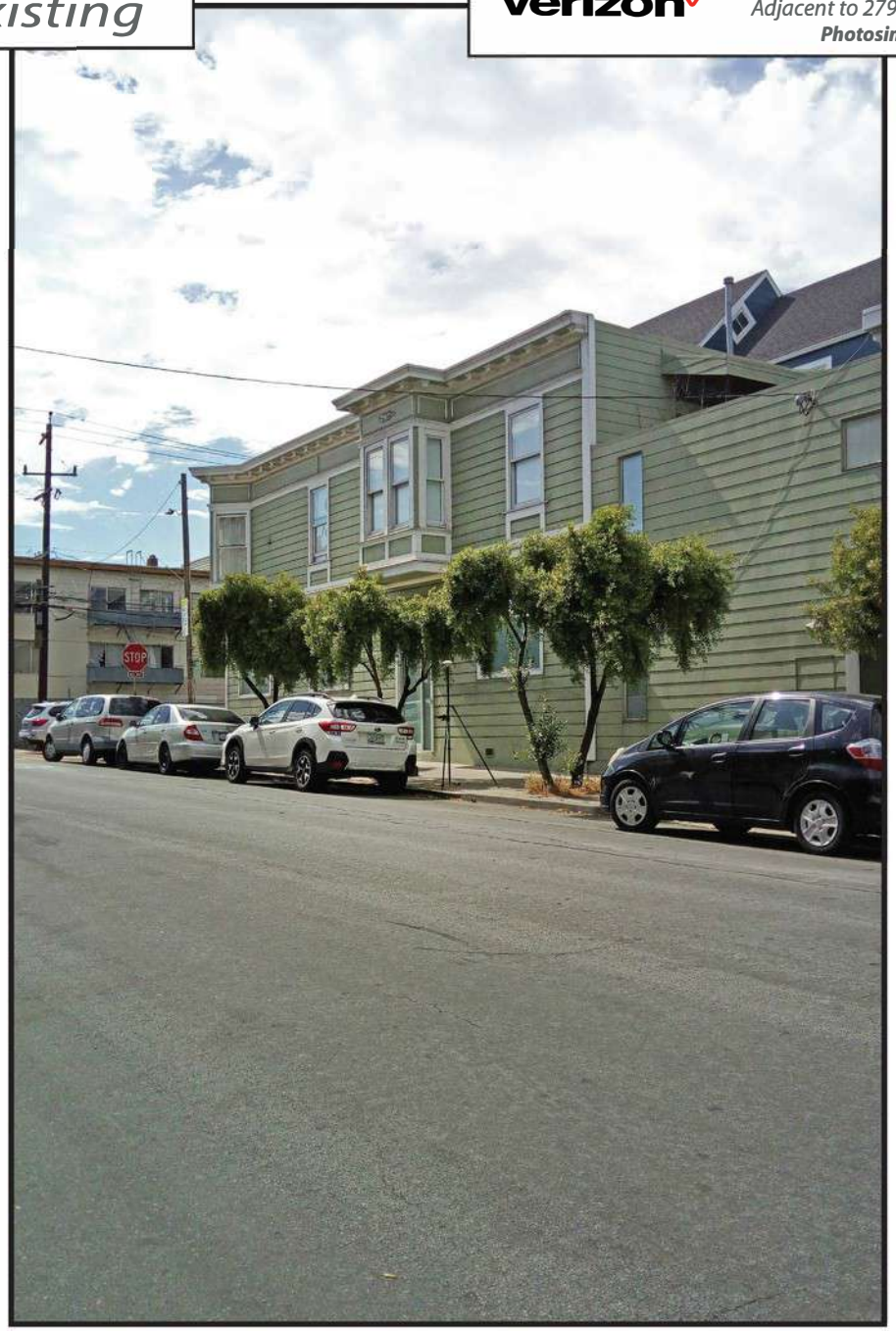
Exhibit G

view from 26th Street looking northwest at site

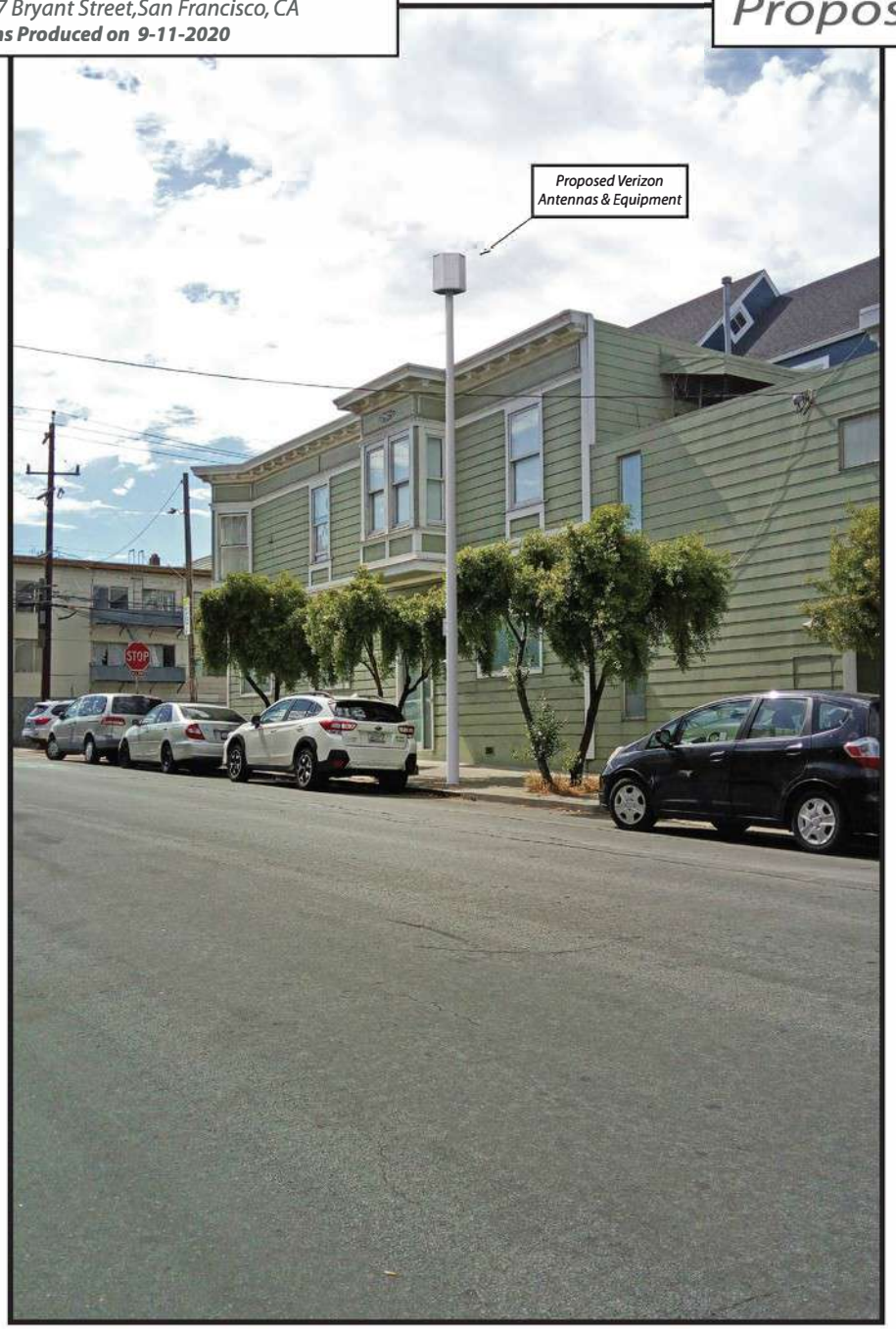
verizon

SF Noe Valley 047
Adjacent to 2797 Bryant Street,San Francisco, CA
Photosims Produced on 9-11-2020

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Date:	January 7, 2021
DPW Permit No.:	**20WR-00057**
Planning Case No:	2020-009520MIS
Project Address:	2797 Bryant St - Verizon PROW WTS Facility Installation Steel Pole owned by Verizon Wireless
Project Sponsor:	Modus for Verizon Wireless 240 Stockton St., 3rd Floor San Francisco, CA 94108 vznodassf@modus-corp.com
Staff Contact:	Ryan Balba – 628-652-7331 Ryan.Balba@sfgov.org
Determination:	**Approval with Conditions**

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location, and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

Determination

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD NOT significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated September 29, 2020 and photo simulations dated September 11, 2020, and associated with DPW Wireless Application No. 20WR-00057.

Findings

The proposed Tier B Personal Wireless Service Facility is to be located in the public right-of-way in Zoning Protected Location, adjacent to 2797 Bryant St - Verizon PROW WTS Facility Installation, and on a street with Undesignated Street Views.

The proposed Personal Wireless Service Facility is, on balance, consistent with Article 25 of the Public Works Code and the Objectives and Policies of the General Plan, as follows:

Article 25 Compliance

I. The proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Residential or Neighborhood Commercial zoning district. This site is located within the RH-2 zoning district.

The proposed Verizon Wireless personal wireless service facility would be situated within the RH-2 (Residential- House, Two Family) district. The RH-1 District intended to recognize, protect, conserve and enhance areas characterized by dwellings in the form of houses, usually with one, two or three units with separate entrances, and limited scale in terms of building width and height. These Districts are devoted to one-family and two-family houses, with the latter commonly consisting of two large flats, one occupied by the owner and the other available for rental. Structures are finely scaled and usually do not exceed 25 feet in width or 40 feet in height. Building styles are often more varied than in single-family areas, but certain streets and tracts are quite uniform. Considerable ground-level open space is available, and it frequently is private for each unit. The Districts may have easy access to shopping facilities and transit lines.

Planning has determined that the proposed Verizon Wireless personal wireless service facility is designed in a streamlined manner, as proposed it will be located on a new steel pole which would not significantly detract from any of the defining characteristics of the undesignated street view RH-2 (Residential-House, Two Family) district.

General Plan Compliance

I. Urban Design Element

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1
EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

Policy 1.1
Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.9
Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14
Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation, and preserves the ability for an observer to perceive the City and its districts clearly.

II. Transportation Element

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and provides a strong sense of the overall image of the city.

OBJECTIVE 23
IMPROVE THE CITY'S PEDESTRIAN CIRCULATION SYSTEM TO PROVIDE FOR EFFICIENT, PLEASANT, AND SAFE MOVEMENT.

Policy 23.5
Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24
IMPROVE THE AMBIENCE OF THE PEDESTRIAN ENVIRONMENT.

Policy 24.4
Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to an existing light/utility pole extant in the public sidewalk. The facility components are designed as an extension to the pole and equipment boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the RH-2 Zoning District.

Conditions

1. Plant and maintain an appropriate street tree.

2. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.

3. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.

4. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.

5. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.

6. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.

7. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

8. Not utilize any visible flashing indicator lights or similar.

9. Not obstruct the view from, or the light into any adjacent residential window.

10. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.

11. Non-essential radio relay unit elements (handle and legs) shall be removed.

12. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and

Department of Public Works).

13. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).

14. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Sincerely,

Ryan Balba

Ryan Balba
Planner I

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

London N. Breed, Mayor
Grant Colfax, MD, Director of Health
Patrick Fosdahl, REHS, ME, Director of EH

January 11, 2021

TO: Leo Palacios, Dept. of Public Works, Bureau of Street Use and Mapping

FROM: Arthur Duque, Dept. Of Public Health, Environmental Health Services AD

RE: Verizon Pole Mounted Antennas, (2) Ericsson 6701 antennas

Location:	DPW Application:	Node#
2797 Bryant St.	20WR-00057	479351 "Noe Valley 047"

As requested, I have reviewed the documentation that you and Verizon have provided to me regarding the proposed installation of (2) Ericsson 6701 antennas, on a Verizon owned pole or similar structures located at the above listed location in the City and County of San Francisco.

This review includes September 11, 2020 radio frequency energy report prepared by Hammett and Edison Inc. for this site. The report states that (2) Ericsson 6701 antennas will be mounted on a Verizon owned pole near the location listed above. The Ericsson antennas will be 28½ feet above ground level and points in the southeast and southwest direction along 26th Street. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 193 watts.

The maximum calculated exposure level at the ground level will not exceed 0.0053 mW/cm2, which is 0.53% of the FCC public exposure standard. The three-dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is 8 feet from the Ericsson antennas, and does not reach any publicly accessible areas. The maximum calculated exposure level at the adjacent building is 2.1% of the FCC public limit, 50 feet away.

Based on the information provided in the Hammett and Edison report, I would agree that these Ericsson antennas, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by Hammett & Edison and was dated September 11, 2020. This evaluation found that the maximum noise level from three Ericsson Model 6701 units is 38.1 dBA at a reference distance of 3 feet meaning that the applicable noise limit would be met for the configuration described above when placed at least 5½ feet away from any building façade. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25.

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.

- Ensure that there are no publicly occupied areas within eight (8) from the face of the Ericsson antennas.

- Once the antenna is installed, Verizon must take RF power density measurements with the antenna operating at full power to verify the level reported in the Hammett and Edison report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.

- Verizon should be aware that the general public may have concerns about the antenna and potential RF source near their dwellings. should have in place a procedure for taking RF power density levels in nearby dwellings when requested by the members of the general public.

- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon is responsible for paying a fee of $210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

Verizon Wireless • Proposed Small Cell (No. 479351 "Noe Valley 047")
2797 Bryant Street • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 479351 "Noe Valley 047") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated September 9, 2020. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2020

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install two antennas on a new steel pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install two Ericsson Model 6701, 2-foot tall, directional panel antennas with integrated radios within a hexagonal shroud around the top of a new 29-foot-tall steel pole to be sited in the public right-of-way on the north side of 26th Street adjacent to the two-story residence at 2797 Bryant Street. The antennas would employ no downtilt, would be mounted at an effective height of about 28½ feet above ground, and would be oriented toward 120°T and 240°T.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 193 watts in the 28 GHz band.

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at any nearby building is 2.1% of the public exposure limit; this occurs at the three-story mixed-use building at 2801 Bryant Street, about 50 feet to the south. The maximum calculated level at the second-floor elevation of the adjacent residence* is 1.5% of the public exposure limit.

* About 10 feet away, based on the drawings.

©2020

8. Report the estimated cumulative radio frequency fields for the proposed site at ground level.

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.0053 mW/cm^2, which is 0.53% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 8 and 2 feet out from the antennas, respectively, and to much lesser distances above and below; these do not reach any publicly accessible areas.

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.

Due to their mounting location and height, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

11. Statement of authorship and qualification.

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

©2020

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless near 2797 Bryant Street in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Neil J. Olij, P.E.
707/996-5200

September 11, 2020

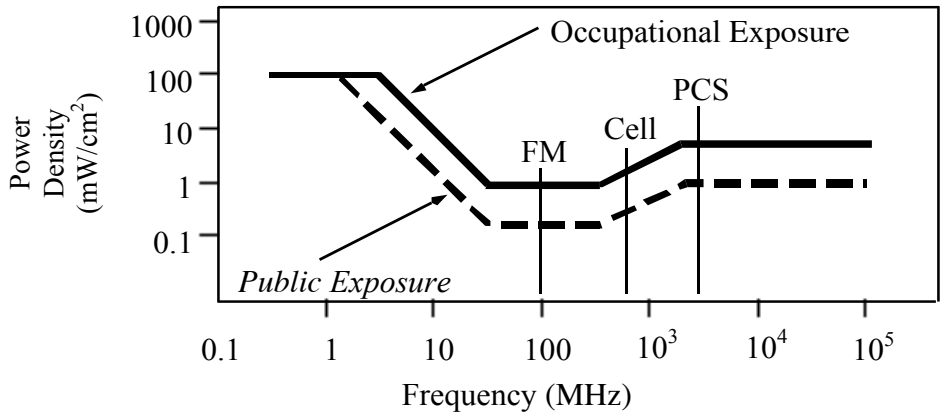
©2020

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

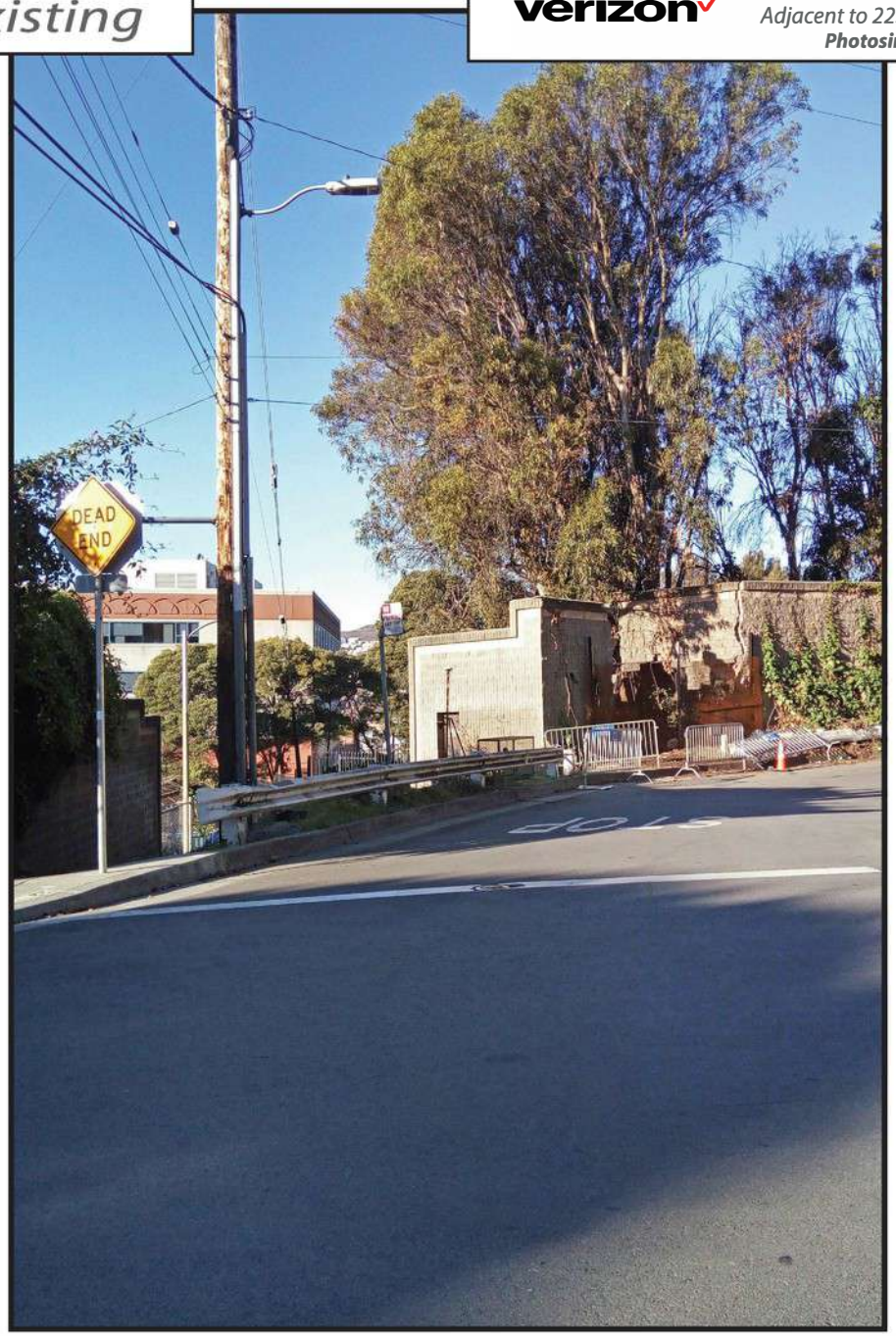
©2020

view from 22nd Street looking east at site

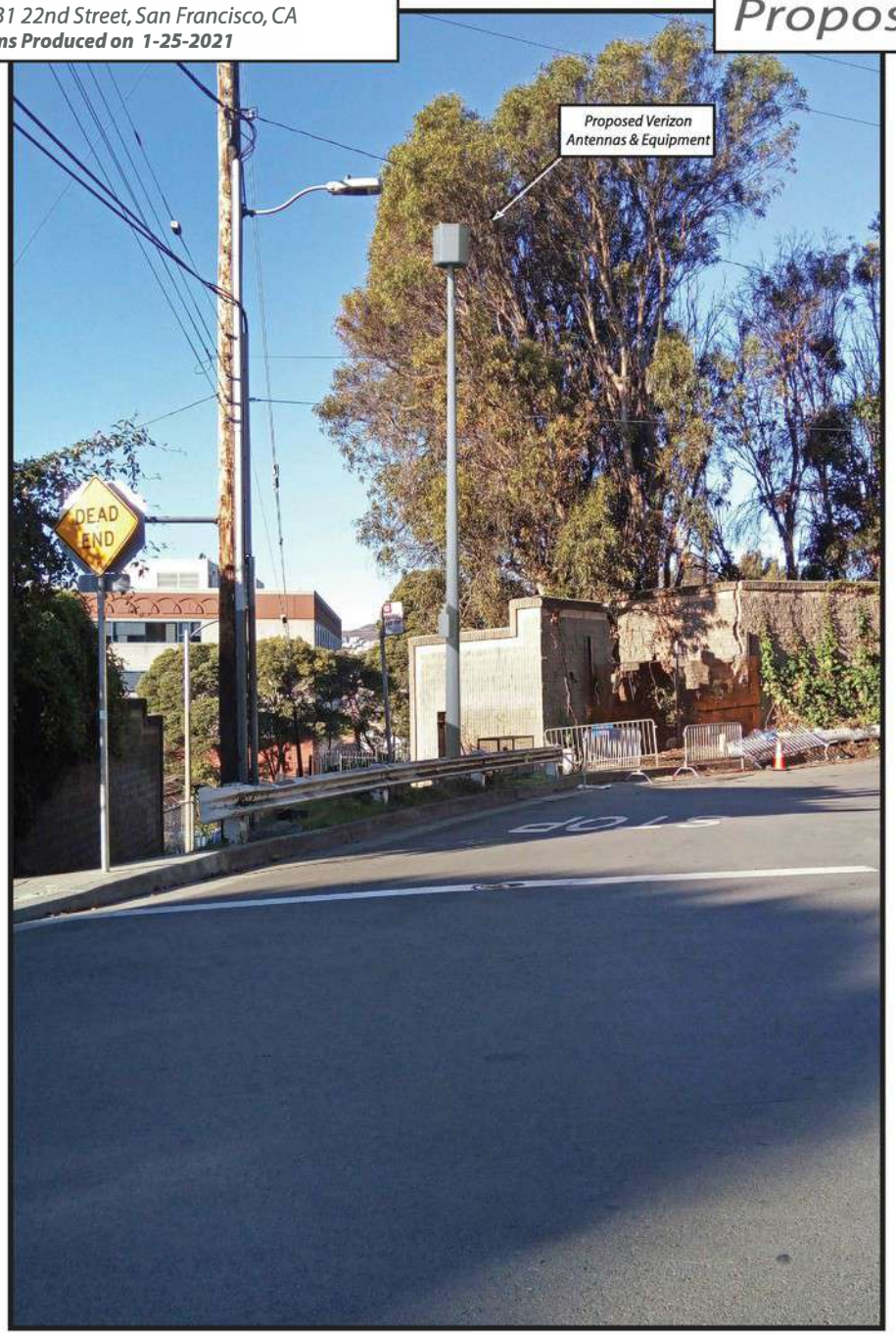
verizon

SF Potrero Hills 011
Adjacent to 2231 22nd Street, San Francisco, CA
Photosims Produced on 1-25-2021

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Exhibit H

view from 22nd Street looking south at site

verizon

SF Potrero Hills 011
Adjacent to 2231 22nd Street, San Francisco, CA
Photosims Produced on 1-25-2021

Existing

Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Date:	April 26, 2021
DPW Permit No.:	**21WR-00012**
Planning Case No:	2021-003645MIS
Project Address:	2231 22nd St - Wireless Verizon PROW WTS Facility Installation Steel Pole owned by Verizon Wireless
Project Sponsor:	Modus on behalf of Verizon Wireless 240 Stockton St, Floor 3 San Francisco, CA 94108 verizonpolygonteam@moduscorp.com ycerrato@modusllc.com
Staff Contact:	Kalyani Agnihotri – 628-652-7454 Kalyani.Agnihotri@sfgov.org

Determination:	**Approval with Conditions**

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

Determination

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD NOT significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated February 02,2021 and photo simulations dated January 25, 2021 and associated with DPW Wireless Application No. 21WR-00021.

Findings

The proposed Tier A Personal Wireless Service Facility is to be located in the public right-of-way in a Planning and Zoning Unprotected Location, adjacent to 2231 22nd St - Wireless Verizon PROW WTS Facility Installation, and on a street with Undesignated Street Views.

General Plan Compliance

I. Urban Design Element

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1
EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

Policy 1.1
Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.9
Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14
Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation, and preserves the ability for an observer to perceive the City and its districts clearly.

II. Transportation Element

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and

provides a strong sense of the overall image of the city.

OBJECTIVE 23
IMPROVE THE CITY'S PEDESTRIAN CIRCULATION SYSTEM TO PROVIDE FOR EFFICIENT, PLEASANT, AND SAFE MOVEMENT.

Policy 23.5
Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24
IMPROVE THE AMBIENCE OF THE PEDESTRIAN ENVIRONMENT.

Policy 24.4
Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to an existing light/utility pole extant in the public sidewalk. The facility components are designed as an extension to the pole and equipment boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the PROW adjacent to 2231 22nd Street.

Conditions

1. Plant and maintain an appropriate street tree.

2. No exposed meter, meter pan or meter pedestal may be used.

3. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.

4. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.

5. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.

6. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.

7. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.

8. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

9. Not utilize any visible flashing indicator lights or similar.

10. Not obstruct the view from, or the light into any adjacent residential window.

11. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.

12. Non-essential radio relay unit elements (handle and legs) shall be removed.

13. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and Department of Public Works).

14. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).

15. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Sincerely,

Kalyani Agnihotri

Kalyani Agnihotri
Planner I

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

London N. Breed, Mayor
Grant Colfax, MD, Director of Health
Patrick Fosdahl, REHS, ME, Director of EH

April 6, 2021

TO: Leo Palacios, Dept. of Public Works, Bureau of Street Use and Mapping

FROM: Arthur Duque, Dept. Of Public Health, Environmental Health Branch AD

RE: Verizon Pole Mounted Antennas, (3) Ericsson 6701 antennas

Location:	DPW Application:	Node#
2231 22nd St.	21WR-00012	466240 "Potrero Hills 011"

As requested, I have reviewed the documentation that you and Verizon have provided to me regarding the proposed installation of (3) Ericsson 6701 antennas, on a Verizon owned pole or similar structures located at the above listed location in the City and County of San Francisco.

This review includes February 10, 2021 radio frequency energy report prepared by Hammett and Edison Inc. for this site. The report states that (3) Ericsson 6701 antennas will be mounted on a Verizon owned pole near the location listed above. The Ericsson antennas will be 28½ feet above ground level and points in the east, south, and northwest direction along 22nd Street. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 193 watts.

The maximum calculated exposure level at the ground level will not exceed 0.014 mW/cm2, which is 1.4% of the FCC public exposure standard. The three-dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is 8 feet from the Ericsson antennas, and does not reach any publicly accessible areas. The maximum calculated exposure level at the adjacent building is 3.0% of the FCC public limit, 47 feet away.

Based on the information provided in the Hammett and Edison report, I would agree that these Ericsson antennas, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by Hammett & Edison and was dated February 10, 2021. This evaluation found that the maximum noise level from three Ericsson Model 6701 units is 38.3 dBA at a reference distance of 5 feet meaning that the applicable noise limit would be met for the configuration described above when placed at least 5½ feet away from any building façade. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25.

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.

- Ensure that there are no publicly occupied areas within eight (8) from the face of the Ericsson antennas.

- Once the antenna is installed, Verizon must take radio frequency (RF) power density measurements with the antenna operating at full power to verify the level reported in the Hammett and Edison report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.

- Verizon should be aware that the general public may have concerns about the antenna and potential RF source near their dwellings. should have in place a procedure for taking RF power density levels in nearby dwellings when requested by the members of the general public.

- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon is responsible for paying a fee of $210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

Verizon Wireless • Proposed Small Cell (No. 466240 "Potrero Hills 011")
2231 22nd Street • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 466240 "Potrero Hills 011") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Power line frequencies (60 Hz) are well below the applicable range of these standards, and there is considered to be no compounding effect from simultaneous exposure to power line and radio frequency fields.

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated February 2, 2021. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry

©2021

standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site, a 29-foot steel pole to be installed in the public right-of-way near the east entrance to the pedestrian bridge over Bayshore Freeway, just north of the vacant parcel on the west side of Kansas Street at the southwest corner of its intersection with 22nd Street; that parcel's address is reported to be 2231 22nd Street. The nearest residential building is at 2200-2202 22nd Street, about 47 feet across 22nd Street to the north.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install three antennas on the new pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install three Ericsson Model 6701, 2-foot tall, directional panel antennas with integrated radios at the top of the pole. The antennas be mounted at an effective height of about 28½ feet above ground and would be oriented toward 90°T, 210°T, and 330°T, to provide service in all directions.

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.*

Because there are no antennas at the site presently, nor any direct public access to the antenna height, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 193 watts in the 28 GHz band.

©2021

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at the third-floor elevation of any nearby building is 3.0% of the public exposure limit; this occurs at the nearest residence.

8. *Report the estimated cumulative radio frequency fields for the proposed site at ground level.*

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.014 mW/cm^2, which is 1.4% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.*

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 8 and 2 feet out from the antennas, respectively, and to much lesser distances above, below, and to the sides; these do not reach any publicly accessible areas.

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.*

Due to their mounting location and height, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

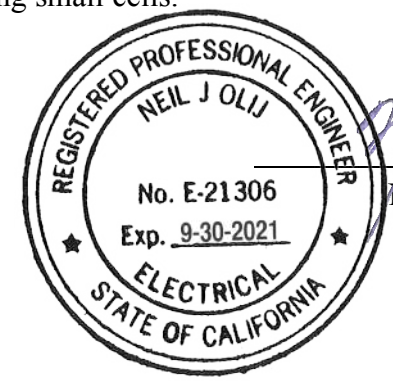
11. *Statement of authorship and qualification.*

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

©2021

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless near 2231 22nd Street in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.



Neil J. Olij, P.E.
707/996-5200

February 10, 2021

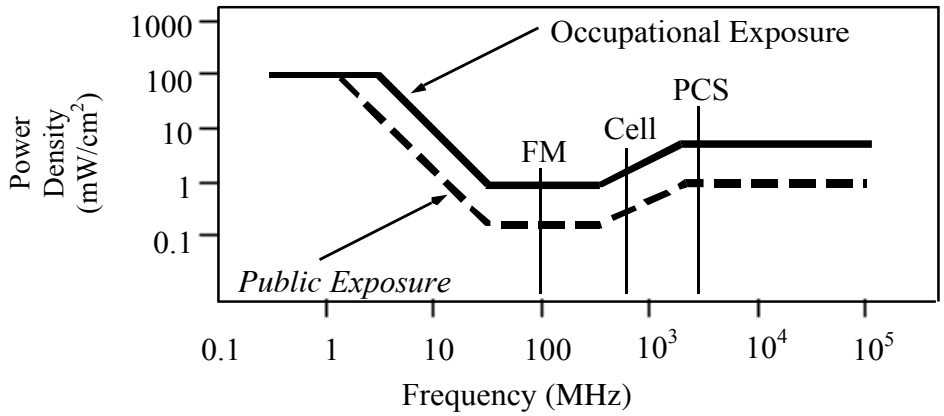
©2021

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

view from Silver Avenue looking northwest at site

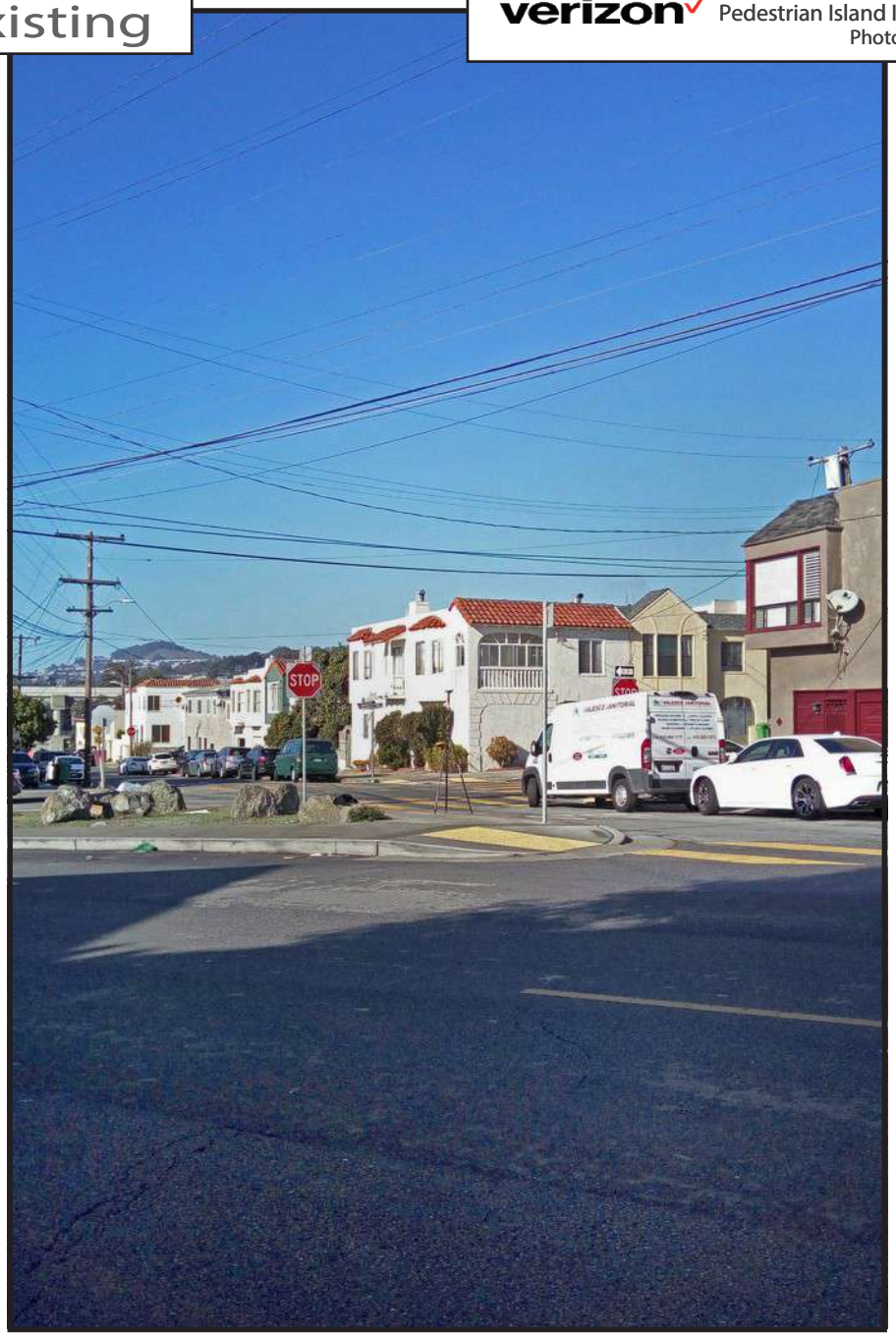
verizon

SF Potrero Hills 023

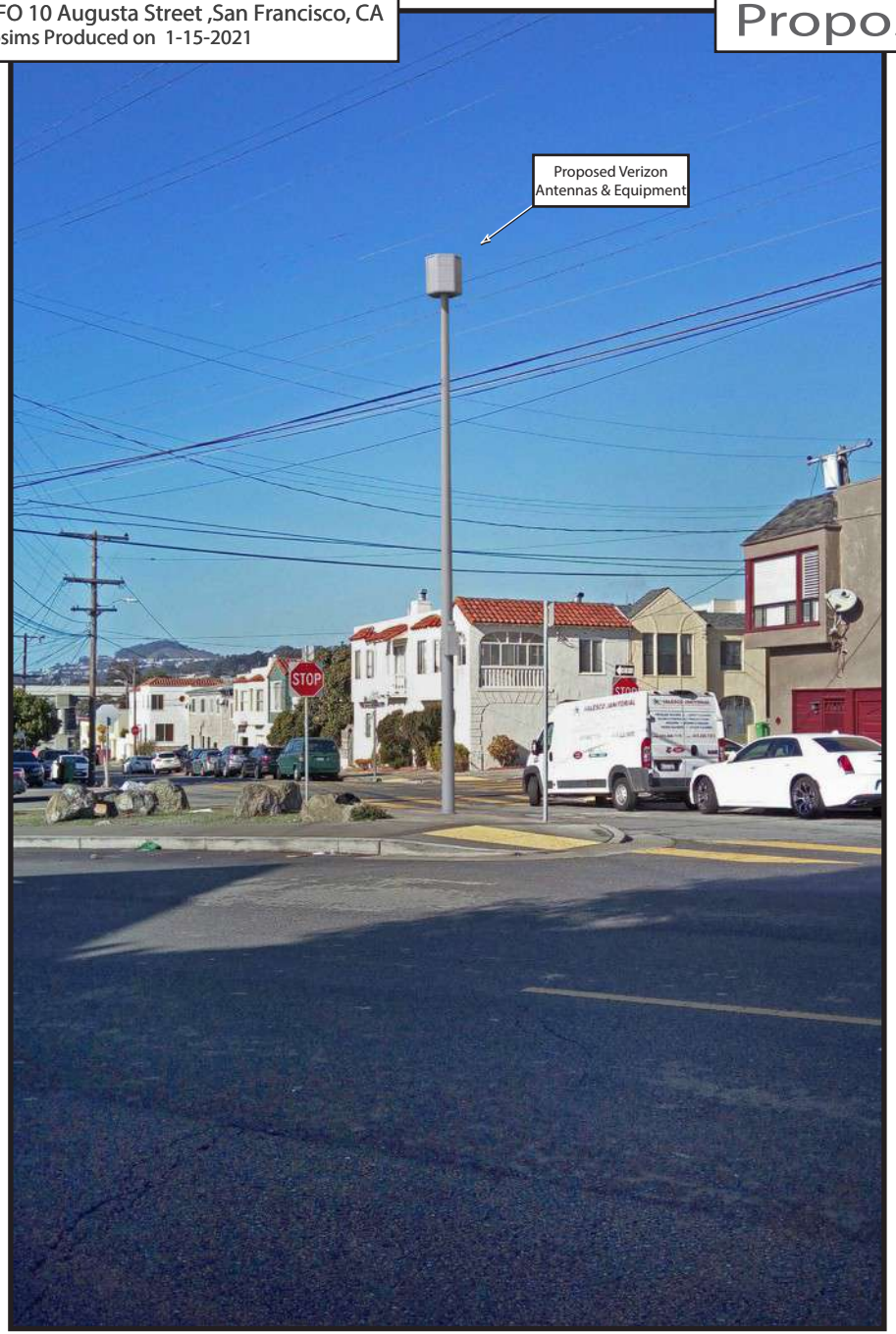
Pedestrian Island IFO 10 Augusta Street ,San Francisco, CA

Photosims Produced on 1-15-2021

Existing



Proposed



AdvanceSim

Photo Simulation Solutions

Contact (925) 202-8507

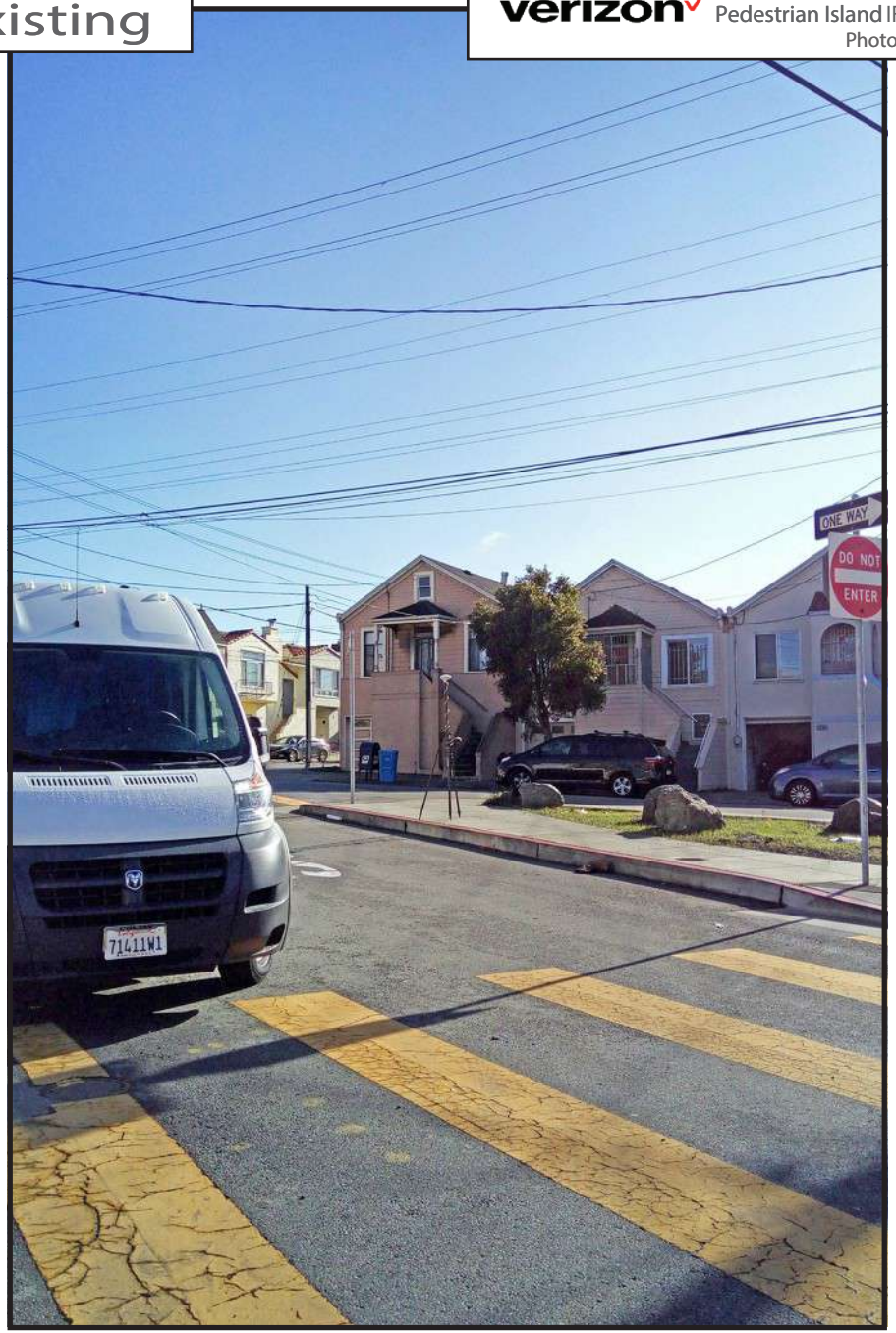
Exhibit I

view from Augusta Street looking southeast at site

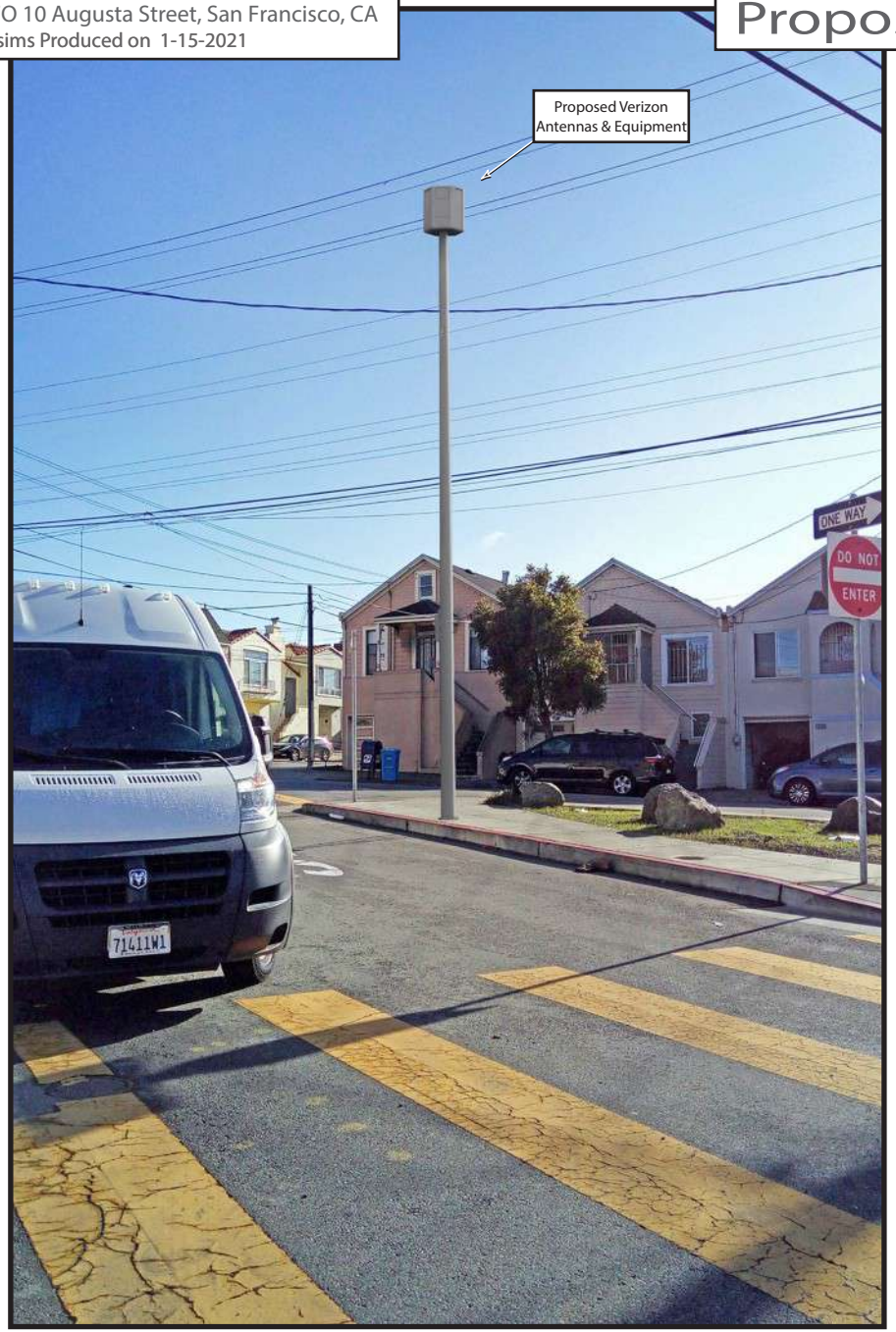
verizon

SF Potrero Hills 023
Pedestrian Island IFO 10 Augusta Street, San Francisco, CA
Photosims Produced on 1-15-2021

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Date:	April 9, 2021
DPW Permit No.:	**21WR-00006**
Planning Case No:	2021-002684MIS
Project Address:	10 Augusta St - Verizon PROW WTS Facility Installation Steel Pole owned by Verizon Wireless
Project Sponsor:	Modus for Verizon Wireless 240 Stockton St., 3rd Floor San Francisco, CA 94108 verizonpolygonteam@modus-corp.com ycerrato@modusllc.com
Staff Contact:	Kalyani Agnihotri – 628-652-7454 Kalyani.Agnihotri@sfgov.org

Determination:	**Approval with Conditions**

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

Determination

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD NOT significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated January 12, 2021 and photo simulations dated January 15, 2021 and associated with DPW Wireless Application No. 21WR-00006.

Findings

The proposed Tier B Personal Wireless Service Facility is to be located in the public right-of-way in a Zoning Protected Location, adjacent to 10 Augusta St - Verizon PROW WTS Facility Installation, and on a street with Undesignated Street Views.

The proposed Personal Wireless Service Facility is, on balance, consistent with Article 25 of the Public Works Code and the Objectives and Policies of the General Plan, as follows:

Article 25 Compliance

I. The proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Residential or Neighborhood Commercial zoning district. This site is located within the RH-1 zoning district.

The proposed Verizon Wireless personal wireless service facility would be situated within the RH-1 (Residential-House, One Family) district. The RH-1 District intended to recognize, protect, conserve and enhance areas characterized by dwellings in the form of houses, usually with one, two or three units with separate entrances, and limited scale in terms of building width and height. These Districts are characterized by lots of greater width and area than in other parts of the City, and by single-family houses with side yards. The structures are relatively large, but rarely exceed 35 feet in height. Ground level open space and landscaping at the front and rear are usually abundant. Much of the development has been in sizable tracts with similarities of building style and narrow streets following the contours of hills. In some cases, private covenants have controlled the nature of development and helped to maintain the street areas.

Planning has determined that the proposed Verizon Wireless personal wireless service facility is designed in a streamlined manner, as proposed it will be located on a new steel pole which would not significantly detract from any of the defining characteristics of the undesignated street view RH-1 (Residential-House, One Family) district.

General Plan Compliance

I. Urban Design Element

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1

EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

Policy 1.1

Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2

CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.9
Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14
Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation and preserves the ability for an observer to perceive the City and its districts clearly.

II. Transportation Element

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and provides a strong sense of the overall image of the city.

OBJECTIVE 23
IMPROVE THE CITY'S PEDESTRIAN CIRCULATION SYSTEM TO PROVIDE FOR EFFICIENT, PLEASANT, AND SAFE MOVEMENT.

Policy 23.5
Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24
IMPROVE THE AMBIENCE OF THE PEDESTRIAN ENVIRONMENT.

Policy 24.4
Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to an existing light/utility pole extant in the public sidewalk. The facility components are designed as an extension to the pole and equipment boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the RH-1 Zoning District.

Conditions

1. Plant and maintain an appropriate street tree.

2. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.

3. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.

4. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.

5. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.

6. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.

7. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

8. Not utilize any visible flashing indicator lights or similar.

9. Not obstruct the view from, or the light into any adjacent residential window.

10. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.

11. Non-essential radio relay unit elements (handle and legs) shall be removed.

12. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and

Department of Public Works).

13. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).

14. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Sincerely,

Kalyani Agnihotri

Kalyani Agnihotri
Planner I

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

London N. Breed, Mayor
Grant Colfax, MD, Director of Health
Patrick Fosdahl, REHS, ME, Director of EH

March 12, 2021

TO: Leo Palacios, Dept. of Public Works, Bureau of Street Use and Mapping

FROM: Arthur Duque, Dept. Of Public Health, Environmental Health Branch AD

RE: Verizon Pole Mounted Antennas, (3) Ericsson 6701 antennas

Location:	DPW Application:	Node#
10 Augusta St.	21WR-00006	466252 "Potrero Hills 023"

As requested, I have reviewed the documentation that you and Verizon have provided to me regarding the proposed installation of (3) Ericsson 6701 antennas, on a Verizon owned pole or similar structures located at the above listed location in the City and County of San Francisco.

This review includes January 27, 2021 radio frequency energy report prepared by Hammett and Edison Inc. for this site. The report states that (3) Ericsson 6701 antennas will be mounted on a Verizon owned pole near the location listed above. The Ericsson antennas will be 28½ feet above ground level and points in the east, south, and northwest direction along Augusta Street. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 193 watts.

The maximum calculated exposure level at the ground level will not exceed 0.0071 mW/cm2, which is 0.71% of the FCC public exposure standard. The three-dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is 8 feet from the Ericsson antennas, and does not reach any publicly accessible areas. The maximum calculated exposure level at the adjacent building is 1.4% of the FCC public limit, 40 feet away.

Based on the information provided in the Hammett and Edison report, I would agree that these Ericsson antennas, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by Hammett & Edison and was dated January 27, 2021. This evaluation found that the maximum noise level from three Ericsson Model 6701 units is 38.3 dBA at a reference distance of 5 feet meaning that the applicable noise limit would be met for the configuration described above when placed at least 5½ feet away from any building façade. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25.

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.

- Ensure that there are no publicly occupied areas within eight (8) from the face of the Ericsson antennas.

- Once the antenna is installed, Verizon must take radio frequency (RF) power density measurements with the antenna operating at full power to verify the level reported in the Hammett and Edison report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.

- Verizon should be aware that the general public may have concerns about the antenna and potential RF source near their dwellings. should have in place a procedure for taking RF power density levels in nearby dwellings when requested by the members of the general public.

- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon is responsible for paying a fee of $210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

Verizon Wireless • Proposed Small Cell (No. 466252 "Potrero Hills 023")
Pedestrian Island IFO 10 Augusta Street • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 466252 "Potrero Hills 023") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated January 12, 2021. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2021

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site, a 29-foot tall steel pole to be sited in the public right-of-way on the pedestrian island opposite the two-story residence located at 10 Augusta Street.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install three antennas on the pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install three Ericsson Model 6701, 2-foot tall, directional panel antennas at the top of the pole. The antennas would be mounted at an effective height of about 28½ feet above ground and would be oriented toward 80°T, 200°T, and 320°T, to provide service in all directions.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 193 watts in the 28 GHz band.

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at any nearby building is 1.4% of the public exposure limit; this occurs at the nearby residence, about 40 feet away.

8. *Report the estimated cumulative radio frequency fields for the proposed site at ground level.*

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.0071 mW/cm^2, which is 0.71% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

©2021

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.*

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 8 and 2 feet out from the antennas, respectively, and to much lesser distances above, below, and to the sides; these do not reach any publicly accessible areas.

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.*

Due to their mounting location and height, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

11. *Statement of authorship and qualification.*

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless on the pedestrian island in front of 10 Augusta Street in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Neil J. Olij, P.E.
707/996-5200

January 27, 2021

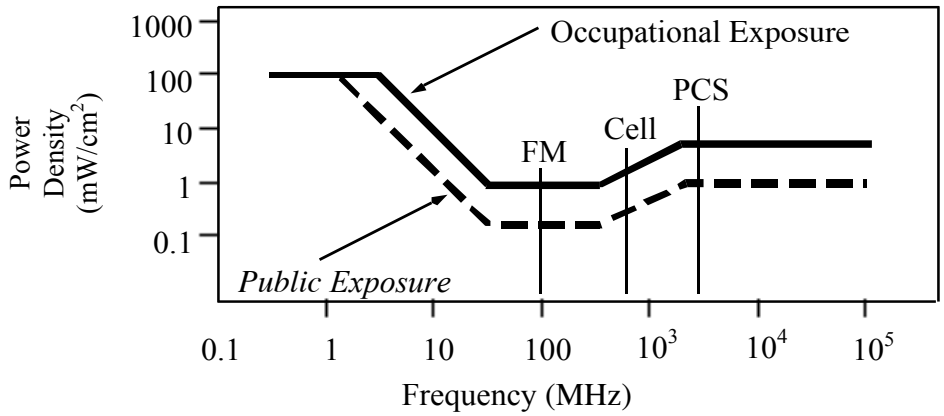
©2021

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

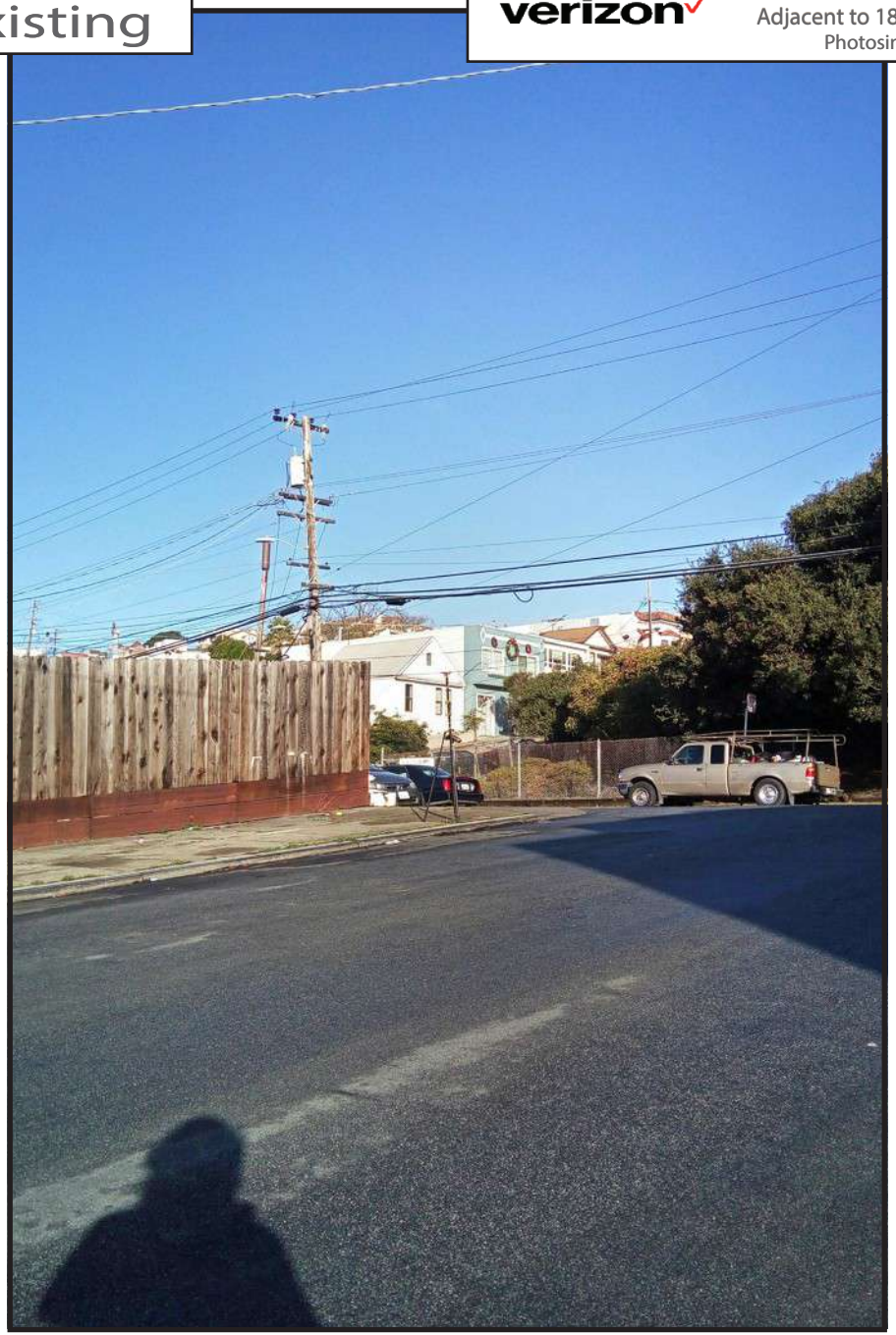
©2020

view from Ceres Street looking northeast at site

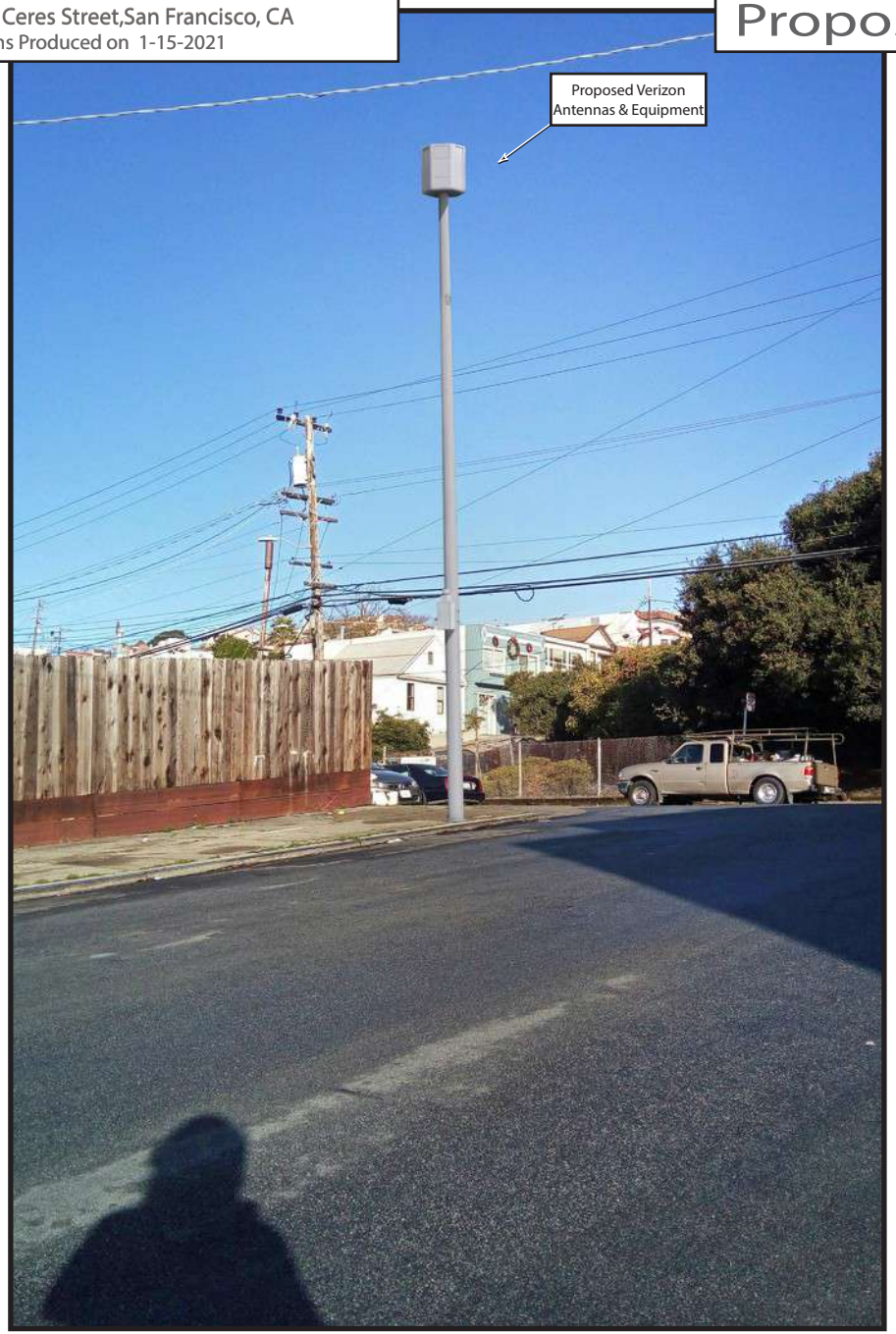
verizon

SF Potrero Hills 024
Adjacent to 18 Ceres Street,San Francisco, CA
Photosims Produced on 1-15-2021

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Exhibit J

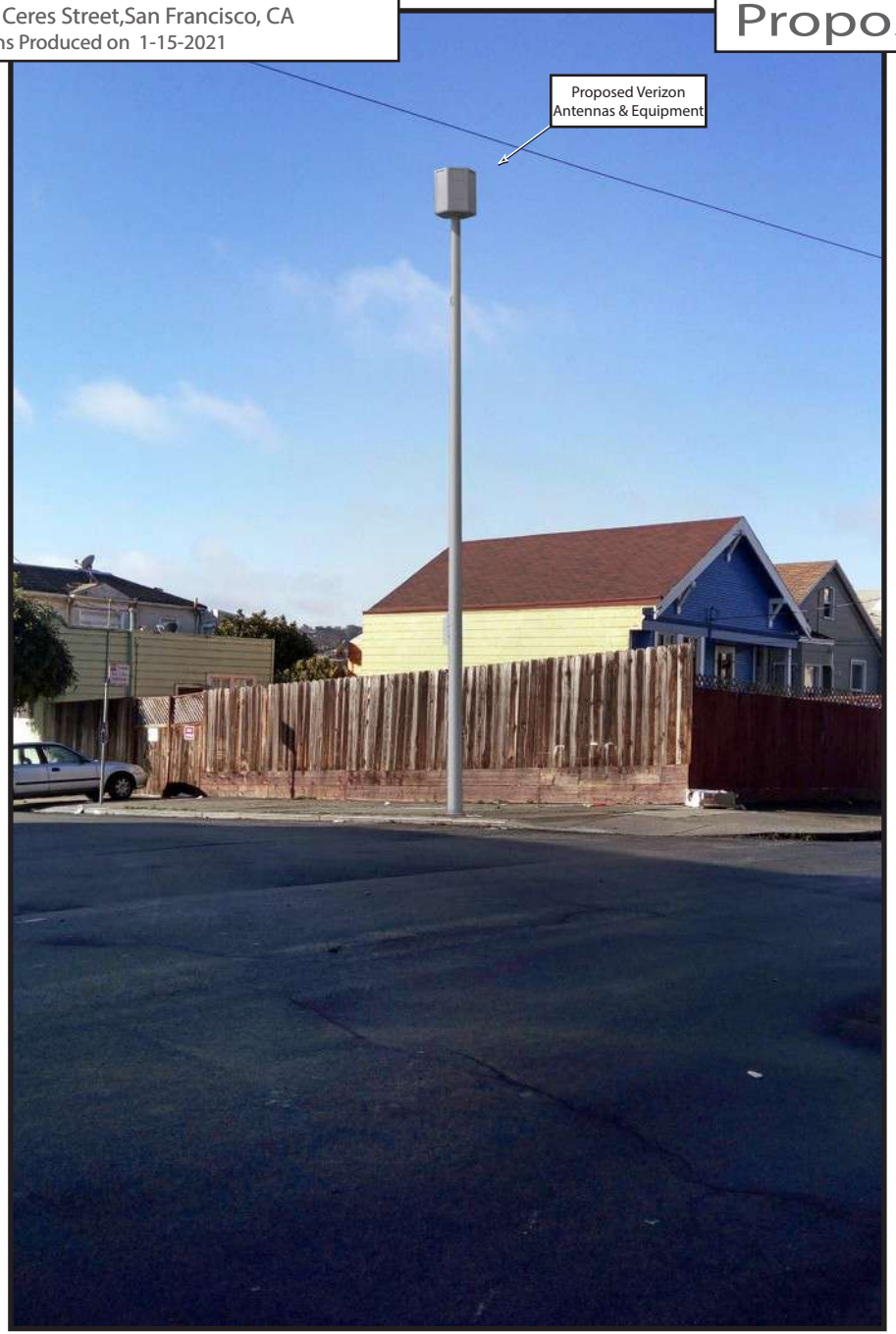
view from Ceres Street looking southwest at site

verizon

SF Potrero Hills 024
Adjacent to 18 Ceres Street,San Francisco, CA
Photosims Produced on 1-15-2021

Existing

Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

San Francisco Planning

49 South Van Ness Avenue, Suite 1400
San Francisco, CA 94103
628.652.7600
www.sfplanning.org

Date:	April 9, 2021
DPW Permit No.:	**21WR-00007**
Planning Case No:	2021-002685MIS
Project Address:	18 Ceres St - Verizon PROW WTS Facility Installation Steel Pole owned by Verizon Wireless
Project Sponsor:	Modus on behalf of Verizon Wireless 240 Stockton St, Floor 3 San Francisco, CA 94108 verizonpolygonteam@modus corp.com ycerrato@modusllc.com
Staff Contact:	Kalyani Agnihotri 628 652 7454 kalyani.agnihotri@sfgov.org

Determination:	**Approval with Conditions**

Department of Public Works Code Article 25 and Order No. 183,440 require review by the Planning Department to determine that the Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Tier A or Tier B Compatibility Standard. An Application for a Tier B Personal Wireless Service Facility Site Permit shall satisfy the Tier B Compatibility Standard for a Zoning and/or a Planning Protected Location, and shall not obstruct the view from or the light into any adjacent residential window. A proposed Personal Wireless Service Facility shall be consistent with the public health, safety, convenience and general welfare and will not unreasonably affect, intrude upon or diminish any identified City resource.

Determination

The Planning Department determines that the proposed Personal Wireless Service Facility WOULD NOT significantly detract from the character of the adjacent residential/commercial/mixed-use Districts, Scenic Vistas; or potential and or known historic Buildings; Districts. The Planning Department recommends APPROVAL WITH CONDITIONS in conformance with architectural plans dated January 12, 2021 and photo simulations dated January 15, 2021, and associated with DPW Wireless Application No. 21WR-00007.

Findings

The proposed Tier B Personal Wireless Service Facility is to be located in the public right-of-way in a Zoning Protected Location, adjacent to 18 Ceres St - Verizon PROW WTS Facility Installation, and on a street with Undesignated Street Views.

The proposed Personal Wireless Service Facility is, on balance, consistent with Article 25 of the Public Works Code and the Objectives and Policies of the General Plan, as follows:

Article 25 Compliance

I. The proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Residential or Neighborhood Commercial zoning district. This site is located within the insert zoning district.

The proposed Verizon Wireless personal wireless service facility would be situated within the RH 1 (Residential House, One Family) district. The RH 1 District intended to recognize, protect, conserve and enhance areas characterized by dwellings in the form of houses, usually with one, two or three units with separate entrances, and limited scale in terms of building width and height. These Districts are characterized by lots of greater width and area than in other parts of the City, and by single family houses with side yards. The structures are relatively large, but rarely exceed 35 feet in height. Ground level open space and landscaping at the front and rear are usually abundant. Much of the development has been in sizable tracts with similarities of building style and narrow streets following the contours of hills. In some cases, private covenants have controlled the nature of development and helped to maintain the street areas.

Planning has determined that the proposed Verizon Wireless personal wireless service facility is designed in a streamlined manner, as proposed it will be located on a new steel pole which would not significantly detract from any of the defining characteristics of the undesignated street view RH 1 (Residential House, One Family) district.

General Plan Compliance

I. Urban Design Element

The Urban Design Element concerns the physical character and order of the city, and the relationship between people and their environment. The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.

OBJECTIVE 1
EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

Policy 1.1
Recognize and protect major views in the city, with particular attention to those of open space and water.

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.9

Review proposals for the giving up of street areas in terms of all the public values that streets afford.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

Policy 4.14
Remove and obscure distracting and cluttering elements.

The project has been designed to reduce, to the best extent possible, the blocking or other impairment of pleasing street views, and preserves an important characteristic of the unique setting and quality of the city.

The project has been designed to maintain, to the best extent possible, views from streets which can provide a means for orientation, and preserves the ability for an observer to perceive the City and its districts clearly.

II. Transportation Element

The Transportation Element concerns pedestrian movement in the city as to ensure the city is safe, convenient, and pleasant as pedestrian travel is an important component of the transportation system. The close-knit fabric of San Francisco, in junction with the dramatic hills and sweeping vistas, makes walking an ideal mode for exploring and moving about the city. The sidewalk is a shared space and provides a strong sense of the overall image of the city.

OBJECTIVE 23
IMPROVE THE CITY'S PEDESTRIAN CIRCULATION SYSTEM TO PROVIDE FOR EFFICIENT, PLEASANT, AND SAFE MOVEMENT.

Policy 23.5
Establish and enforce a set of sidewalk zones that provides guidance for the location of all pedestrian and streetscape elements, maintains sufficient unobstructed width for passage of people, strollers and wheelchairs, consolidates raised elements in distinct areas to activate the pedestrian environment, and allows sufficient access to buildings, vehicles, and streetscape amenities.

The project has been designed to maintain at least four (4) feet unobstructed width for pedestrian passage as outlined in the Pedestrian Network Streets and Design Guidelines of the Transportation Element.

OBJECTIVE 24
IMPROVE THE AMBIENCE OF THE PEDESTRIAN ENVIRONMENT.

Policy 24.4
Preserve pedestrian-oriented building frontages.

The project has been designed as a minimally-visible facility to be attached to an existing light/utility pole extant in the public sidewalk. The facility components are designed as an extension to the pole and equipment boxes, with requirements to be painted or shrouded to match the pole further reducing their visibility and any conflicts with the building frontages within the RH-1 zoning district.

Conditions

1. Plant and maintain an appropriate street tree.

2. Antenna, and all equipment (external conduit, radio relay units, blinders used to shroud bracket bolts [if needed], and mounting mechanisms); except signage, if used for screening, shall all be painted to match the pole and repainted as needed.

3. Cabling below radio relay units shall enter the pole with no more than a five-inch gap between bottom of each radio relay unit and the bottom of the corresponding entry hole on the pole. Conduit connection at pole entry points shall utilize the smallest fitting sizes available. Sealing compounds, if utilized, shall be tidy without excess bubbling and painted to match pole.

4. Remove raised equipment signage (including filling in manufacturer logo indentations on radio relay units/cabinets) and equipment decals that may be visible from sidewalk and dwellings, unless required by government regulation.

5. Utilize smallest RF warning signage allowed (4 x 6 inches); and place the warning sticker facing out toward street, at a location as close to antenna as is feasible. Sticker shall face away from street, when not facing a nearby window within 15 feet. Background color of sticker shall match the pole-mounting surface; and logo and text shall be white.

6. Stack equipment enclosures (not including antenna) as close as allowed by applicable regulation and manufacturer equipment standards.

7. Seams and bolts/screws at antenna and shroud assembly area shall be fabricated and installed in a manner so as to reduce their visibility (e.g. flush mounting screws) from sidewalk level.

8. Not utilize any visible flashing indicator lights or similar.

9. Not obstruct the view from, or the light into any adjacent residential window.

10. New below ground enclosure excavations (vault), if utilized, shall not damage or remove granite curbs. No significant gaps shall be created between vault enclosure lid and primary sidewalk material due to installation. Any other existing historic architectural elements within the public right-of-way shall be retained and protected during installation. No carrier logo or carrier name may be placed on the vault lid.

11. Non-essential radio relay unit elements (handle and legs) shall be removed.

12. The installer shall arrange to have Planning Department staff review the initial installation, in order to ensure compliance with the aforementioned conditions (notwithstanding inspections by pole owner and

Department of Public Works).

13. Ensure Wi-Fi Access Points and associated wiring, utilized by the City's Department of Technology, are not damaged during installation (if present).

14. Should the installation vary from said conditions, the application shall be resubmitted to the Planning Department for further review and comment.

Sincerely,

Kalyani Agnihotri

Kalyani Agnihotri
Planner I

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

London N. Breed, Mayor
Grant Colfax, MD, Director of Health
Patrick Fosdahl, REHS, ME, Director of EH

March 12, 2021

TO: Leo Palacios, Dept. of Public Works, Bureau of Street Use and Mapping

FROM: Arthur Duque, Dept. Of Public Health, Environmental Health Branch AD

RE: Verizon Pole Mounted Antennas, (3) Ericsson 6701 antennas

Location:	DPW Application:	Node#
18 Ceres St.	21WR-00007	466253 "Potrero Hills 024"

As requested, I have reviewed the documentation that you and Verizon have provided to me regarding the proposed installation of (3) Ericsson 6701 antennas, on a Verizon owned pole or similar structures located at the above listed location in the City and County of San Francisco.

This review includes January 21, 2021 radio frequency energy report prepared by Hammett and Edison Inc. for this site. The report states that (3) Ericsson 6701 antennas will be mounted on a Verizon owned pole near the location listed above. The Ericsson antennas will be 28½ feet above ground level and points in the northeast, south, and northwest direction along Ceres Street. Due to the mounting location, the antenna would not be accessible to the general public.

The maximum effective radiated power from this antenna is estimated to be 193 watts.

The maximum calculated exposure level at the ground level will not exceed 0.015 mW/cm2, which is 1.5% of the FCC public exposure standard. The three-dimensional perimeter of the radio frequency (RF) levels equal to the public exposure limit is 8 feet from the Ericsson antennas, and does not reach any publicly accessible areas. The maximum calculated exposure level at the adjacent building is 0.98% of the FCC public limit, 39 feet away.

Based on the information provided in the Hammett and Edison report, I would agree that these Ericsson antennas, utility pole installation would be in compliance with the FCC standards and would not produce radio frequency energy exceeding the FCC public exposure limits.

In addition, a noise evaluation was done on the combination of equipment assumed to be installed at this location which was prepared by Hammett & Edison and was dated January 27, 2021. This evaluation found that the maximum noise level from three Ericsson Model 6701 units is 38.3 dBA at a reference distance of 5 feet meaning that the applicable noise limit would be met for the configuration described above when placed at least 5½ feet away from any building façade. As such, the installation of the equipment would be in compliance with the noise standards as outlined in the DPW Code, Article 25.

Approval Conditions:

- Ensure that any equipment associated with the pole installation of this antenna does not produce a noise in excess of 45 dBA as measured at three (3) feet from the nearest residential building façade.

- Ensure that there are no publicly occupied areas within eight (8) from the face of the Ericsson antennas.

- Once the antenna is installed, Verizon must take radio frequency (RF) power density measurements with the antenna operating at full power to verify the level reported in the Hammett and Edison report and to ensure that the FCC public exposure level is not exceeded in any publicly accessible area. This measurement must be taken again at the time of the permit renewal.

- Verizon should be aware that the general public may have concerns about the antenna and potential RF source near their dwellings. should have in place a procedure for taking RF power density levels in nearby dwellings when requested by the members of the general public.

- In accordance with the San Francisco Public Works Code, Art. 25, Sec. 1527 (a)(2)(C) Verizon is responsible for paying a fee of $210.00 to the San Francisco Department of Public Health for this review.

Please note that this approval and any conditions apply only to the equipment and installation as described. If any changes in the equipment or any increase in the effective radiated power described above are made, a new review by the Department of Public Health must be conducted.

Verizon Wireless • Proposed Small Cell (No. 466253 "Potrero Hills 024")
18 Ceres Street • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 466253 "Potrero Hills 024") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated January 12, 2021. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2021

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site, a 29-foot-tall steel pole to be installed in the public right-of-way at the southwest corner of the intersection of Ceres Street and Thornton Avenue, about 55 feet northeast of the single-story residence located at 18 Ceres Street.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

No antennas were observed within 100 feet of the site. A cylindrical antenna installed by ExteNet Systems for use by T-Mobile is installed on top of the utility pole on the west side of Flora Street about 35 feet north of its intersection with Thornton Avenue, about 135 feet to the northwest of the proposed Verizon location. While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install three antennas on the pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install three Ericsson Model 6701, 2-foot tall, directional panel antennas at the top of the pole. The antennas would be mounted at an effective height of about 28½ feet above ground and would be oriented toward 60°T, 180°T, and 300°T, to provide service in all directions.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 193 watts in the 28 GHz band.

©2021

7. Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.

The maximum calculated level at any nearby building is 0.98% of the public exposure limit; this occurs at the nearest building, about 39 feet away.

8. Report the estimated cumulative radio frequency fields for the proposed site at ground level.

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.015 mW/cm^2, which is 1.5% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 8 and 2 feet out from the antennas, respectively, and to much lesser distances above, below, and to the sides; these do not reach any publicly accessible areas.

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.

Due to their mounting location and height, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

11. Statement of authorship and qualification.

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

©2021

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless near 18 Ceres Street in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Neil J. Olij, P.E.
707/996-5200

January 21, 2021

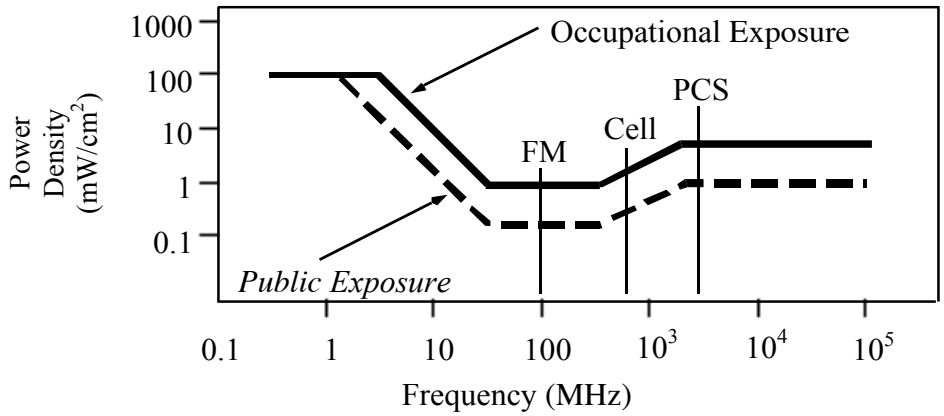
©2021

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

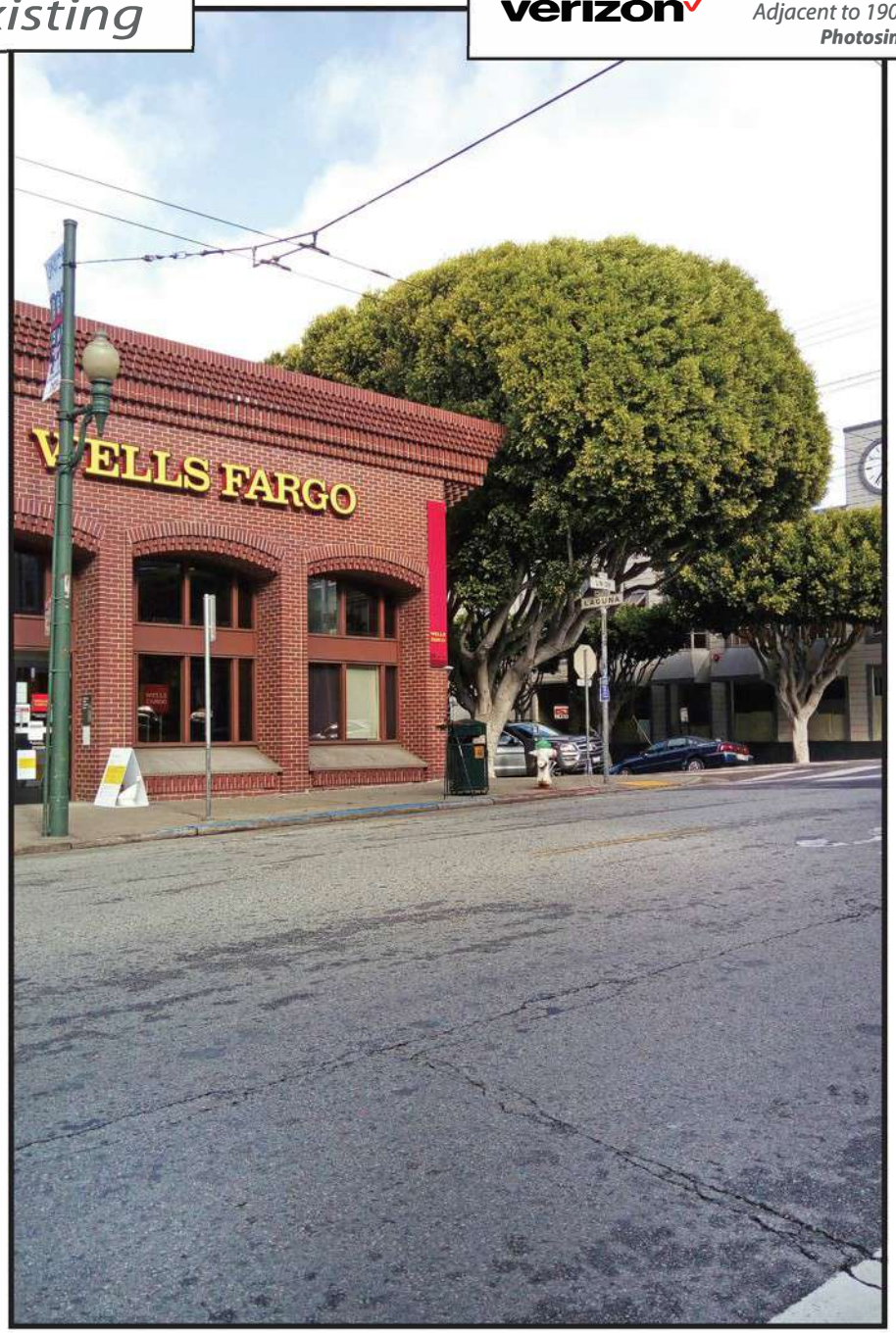
©2020

view from Union Street looking northeast at site

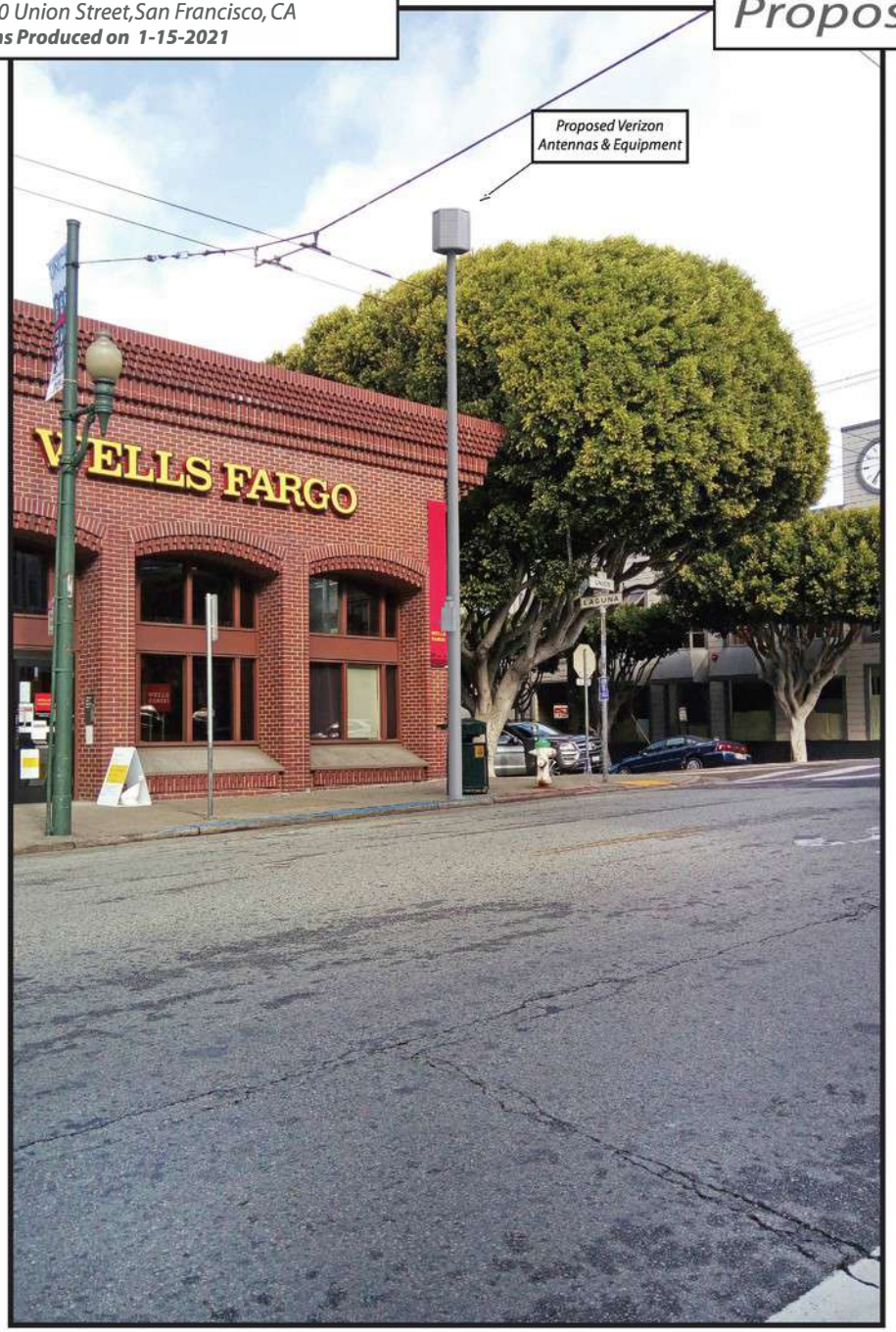
verizon

SF Pac Heights 050
Adjacent to 1900 Union Street,San Francisco, CA
Photosims Produced on 1-15-2021

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

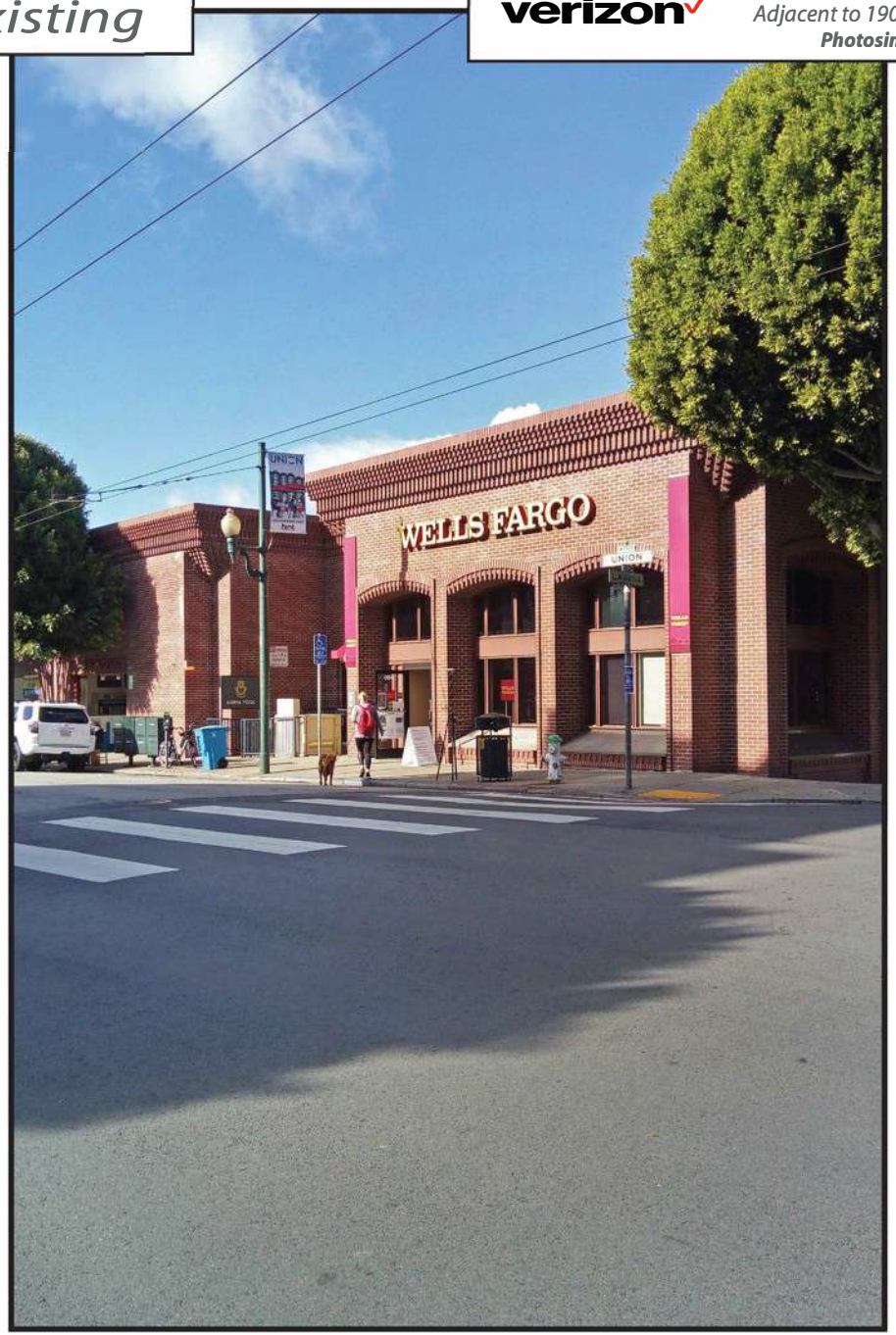
Exhibit K

view from Union Street looking northwest at site

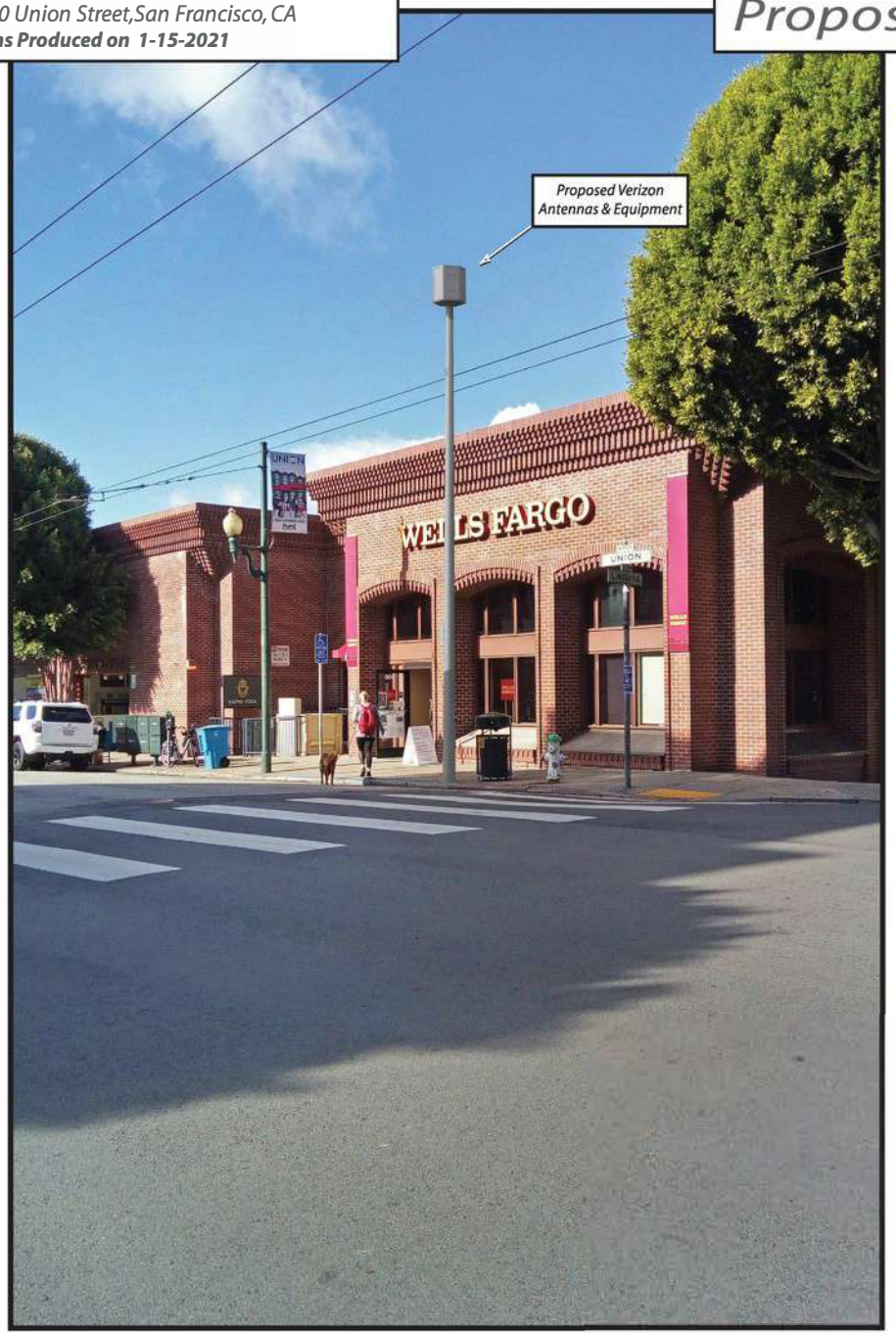
verizon

SF Pac Heights 050
Adjacent to 1900 Union Street,San Francisco, CA
Photosims Produced on 1-15-2021

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Verizon Wireless • Proposed Small Cell (No. 414940 "Pac Heights SF_PAC050")
1900 Union Street • San Francisco, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 414940 "Pac Heights SF_PAC050") proposed to be sited in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted an 11-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable exposure limits set by the FCC are shown in Figure 1. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Checklist

Reference has been made to information provided by Verizon, including drawings by Modus, LLC, dated January 12, 2021. It should be noted that the calculation results in this Statement include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operations. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

©2021

1. *The location, identity, and total number of all operational radiating antennas installed at this site.*

There are reported no wireless base stations installed at the site, a 29-foot-tall steel pole to be installed in the public right-of-way on the north side of Union Street in front of the two-story commercial building located at 1900 Union Street.

2. *List all radiating antennas located within 100 feet of the site that could contribute to the cumulative radio frequency energy at this location.*

While there may be other WTS facilities near this site, the additive impact at this small cell location would be negligible in terms of compliance with the FCC public limit.

3. *Provide a narrative description of the proposed work for this project.*

Verizon proposes to install two antennas on the pole. This is consistent with the scope of work described in the drawings for transmitting elements.

4. *Provide an inventory of the make and model of antennas or transmitting equipment being installed or removed.*

Verizon proposes to install two Ericsson Model 6701, 2-foot tall, directional panel antennas at the top of the pole. The antennas would be mounted at an effective height of about 28½ feet above ground and would be oriented toward 120°T and 240°T.

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.*

Because there are no antennas at the site presently, nor any direct access to the antenna location, existing RF levels for a person at the site are presumed to be well below the applicable public exposure limit.

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 frequency band.*

The maximum effective radiated power proposed in any direction is 193 watts in the 28 GHz band.

7. *Describe the maximum cumulative predicted radio frequency energy level for any nearby publicly accessible building or area.*

The maximum calculated level at any nearby building is 1.9% of the public exposure limit; this occurs at the three-story mixed-use building at 1901 Union Street, about 50 feet to the south. The maximum calculated level at the second-story elevation of the adjacent building is 1.7% of the public limit.

©2021

8. Report the estimated cumulative radio frequency fields for the proposed site at ground level.

For a person anywhere at ground, the maximum RF exposure level due to the proposed operation is calculated to be 0.0063 mW/cm^2, which is 0.63% of the applicable public exposure limit. Cumulative RF levels at ground level near the site are therefore estimated to be well below the applicable public limit.

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.

The three-dimensional perimeters of RF levels equal to the public and occupational exposure limits are calculated to extend up to 8 feet and 2 feet out from the antennas, respectively, and to much lesser distances above, below, and to the sides; these do not reach any publicly accessible areas.

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.

Due to their mounting location and height, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

11. Statement of authorship and qualification.

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

©2021

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless near 1900 Union Street in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Neil J. Olij, P.E.
707/996-5200

January 21, 2021

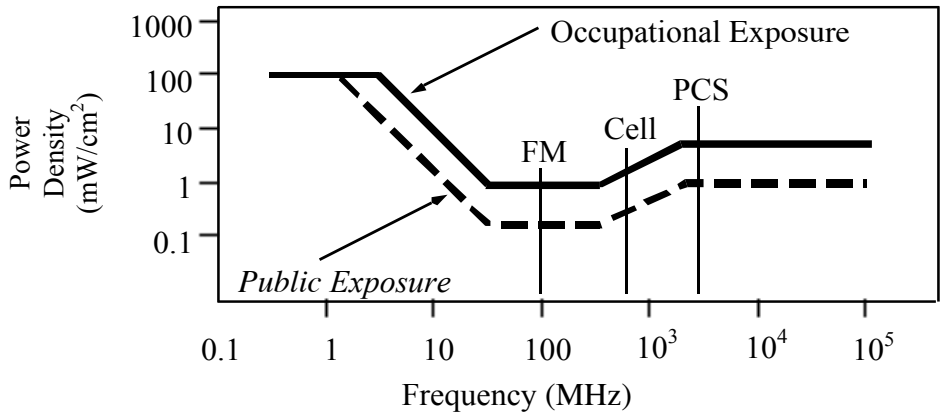
©2021

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

©2020

BRIEF(S) SUBMITTED BY RESPONDENT DEPARTMENT(S)

Nicolas Huff, PE, Bureau Manager | Bureau of Street-Use & Mapping
nicolas.huff@sfdpw.org | T. 628.271.2000 | 49 South Van Ness Ave. 3rd Floor, San Francisco, CA 94103

August 26, 2021

President Darryl Honda
Vice President Rick Swig
Commissioner Ann Lazarus
Commissioner Tina Chang
Commissioner Jose Lopez
City and County of San Francisco
Board of Appeals
1650 Mission Street, Suite 304
San Francisco, CA 94103

Re: Appeal No. 21-063
Public Works Permit Nos. 20WR-00055 (1301 Revere Ave.), 20WR-00057 (2797 Bryant St.), 20WR-00058 (289 Hamilton St.), 20WR-00059 (1500 Silliman St.), 20WR-00060 (300 Madison St.), 21WR-00005 (1900 Union St.), 21WR-00006 (10 Augusta St.), 21WR-00007 (18 Ceres St.), 21WR-00012 (2231 22nd St.), 21WR-00060 (San Bruno Ave. between 3rd St./Girard St. to Campbell Ave-East Side)

Dear President Honda, Vice President Swig, and Commissioners Lazarus, Chang and Lopez:

Public Works submits this response to Appeal No. 21-063 filed by appellant GTE Mobilnet of California L.P. for Verizon Wireless ("Verizon Wireless"). Appeal No. 21-063 concerns ten separate applications for Personal Wireless Service Facility Site Permits that were denied by Public Works ("Applications").

In each of these Applications, Verizon Wireless applied for a Personal Wireless Service Facility Site Permit under Article 25 of the Public Works Code to install a new stand-alone pole in the public right-of-way to be used solely for a Verizon Wireless Personal Wireless Service

Facility. These Applications represent the first time Public Works has been asked to approve a Personal Wireless Service Facility Site Permit for a new stand-alone pole. Previously, all of the applications have sought a permit to install the facility on an existing utility, street light, or transit pole.[1]

In a Letter of Final Determination dated June 30, 2021, Public Works denied each of these Applications. (Exhibit A.) The grounds for the denials were that, under Article 25 of the Public Works Code, "Public Works may only issue a Personal Wireless Service Facility Site Permit to install a Personal Wireless Service Facility on an existing utility pole. Public Works cannot issue a Permit for a Personal Wireless Service Facility to be constructed on a stand-alone pole."

The appeal filed by Verizon Wireless focuses on three issues. First, Verizon Wireless argues that Public Works incorrectly construed Article 25. According to Verizon Wireless, Article 25 expressly permits the construction of stand-alone poles for Personal Wireless Service Facilities. Public Works disagrees with this interpretation and, as Public Works will show below, its interpretation of the scope of its authority under Article 25 is entitled to deference.

In the second and third issues, Verizon Wireless argues that the denials of these Applications violate state and federal law. The law is well-settled that the authority of the Board of Appeals ("Board") is limited to a determination of whether the Applications satisfied all the requirements of Article 25. Verizon Wireless's arguments concerning its rights under state and federal law, therefore, are not properly raised before the Board. Only a court can find that state or

[1] Article 25 no longer requires Personal Wireless Service Facility Site Permits to install wireless facilities on street light or transit poles. Permits are only required for Personal Wireless Service Facilities on utility poles.

federal law preempts a City ordinance, or a City department's permitting decisions based on a City ordinance.

For these reasons, the Board should deny the appeal.

I. PUBLIC WORKS PROPERLY DETERMINED THAT IT DID NOT HAVE THE AUTHORITY UNDER ARTICLE 25 OF THE PUBLIC WORKS CODE TO ISSUE A PERSONAL WIRELESS SERVICE FACILITY SITE PERMIT TO INSTALL A NEW A STAND-ALONE POLE FOR A PERSONAL WIRELESS SERVICE FACILITY

In arguing that the "plain language of Article 25" would allow Public Works to issue a Personal Wireless Service Facility Site Permit to install a Personal Wireless Service Facility on a stand-alone pole, Verizon Wireless focuses on the language of Public Works Code section 1500(c)(1). That section prohibits Public Works from issuing a Personal Wireless Facility Site Permit if the applicant seeks to "[i]nstall a Utility or Street Light Pole on a Public Right-of-Way where there presently are no overhead utility facilities." While Public Works agrees that there are existing overhead facilities in the areas where Verizon Wireless would install the stand-alone poles, Public Works disagrees with this construction of the statute, because it ignores the language of the statute as a whole.

It is well-settled that in interpreting legislation, "[e]very word and clause is given effect so that no part or provision is useless, deprived of meaning, or contradictory." (*Green v. Workers' Comp. Appeals Bd*. (2005)127 Cal.App.4th 1426, 1435.) Where "more than one interpretation is reasonable, the language is interpreted consistent with the purpose of the statute

and the statutory framework as a whole, using rules of construction or legislative history in determining legislative intent." (*Id*.) In general, because Public Works is the administrative agency charged with implementing Article 25, its interpretation of the statute is "entitled to consideration and respect by the courts." (*Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 3.) But where, as here, Public Works has adopted "quasi-legislative regulations" pursuant to the power "to make law" that was "confided" in the department by the Board of Supervisors in Article 25, those regulations "bind" the courts "as firmly as statutes themselves." (*Id*.)

With these rules of statutory construction in mind, it is clear that Public Works correctly determined that its authority under Article 25 is limited to issuing permits to install Personal Wireless Service Facilities on existing utility poles. Article 25 was added to the Public Works Code pursuant to Ordinance 12-11, which was finally approved by the Board of Supervisors on January 4, 2011.[2] Ordinance 12-11is replete with language that makes it clear the Board of Supervisors intended its provisions to apply only to attachments to existing utility and street light poles.

Notably, section 1500(b)(2) identifies certain things that an applicant for a Personal Wireless Service Facility Site Permit must demonstrate to the satisfaction of the Department to obtain the permit, including that the "pole owner has authorized the Applicant to use or replace the Utility Pole identified in the Application."[3] This language demonstrates that the Board of

[2] Article 25 has been amended by the Board of Supervisors on two separate occasions.
[3] The word "replace" in section 1500(b)(2) is intended to refer to replacing an existing pole at the same location. When it would be unsafe or in violation of California Public Utilities Commission requirements, the pole owner(s) will require an applicant for a Personal Wireless Service Facility Site Permit to replace an existing pole. These replacement poles are not "new" poles in the sense that the stand-alone poles at issue here would be.

Supervisors intended Article 25 to apply only to applications to install Personal Wireless Service Facilities on existing Utility Poles that would be owned by someone other than the applicant. The statutory language envisions a "pole owner" as being a different entity from the "Applicant." Section 1506, requiring the permittee to plant a street tree, is also instructive. It provides that the tree must be "adjacent" to the utility pole. For these reasons alone, the Board should find that Public Works properly determined that Article 25 did not authorize it to approve the Applications.

There is also compelling evidence that Public Works has repeatedly construed Article 25 in this manner. In Article 25, the Board of Supervisor charged Public Works with adopting regulations to implement the permitting requirements contained therein. (Public Works Code § 1501.) From the outset, the orders adopted by Public Works to implement Article 25 have been clear in this regard.

On June 28, 2011, Public Works adopted DPW Order 179,406. (Exhibit B.) Section 5 of that order identifies the application requirements. Section 5(B) specifies that the application must contain "proof that the Applicant has obtained permission from the Utility or Street Light Pole[4] owner(s) to install the proposed Personal Wireless Service Facility on any existing Utility or Street Light Pole, or to replace an existing Utility or Street Light Pole to accommodate the proposed Personal Wireless Service Facility." Like the language of section 1500(b)(2), this language orders reflects the understanding that the utility pole to be used for the Personal Wireless Service Facility would be owned by someone other than the Applicant. Section 5(F)

[4] As noted earlier, Article 25 no longer applies to street light poles. Public Works Code section 1500 and DPW Order 201,970 section 2(b)(49) define the term "Utility Pole" to mean "a power pole, telephone pole, or other similar pole subject to California Public Utilities Commission General Order 95, and located within the Public Rights-of-Way."

requires the applicant to include in the required "location drawing" the "Utility or Street Light Pole to be used;" "[a]ll existing facilities on the Utility or Street Light Pole;" and [a]ll proposed facilities on the Utility or Street Light Pole." This language also clearly demonstrates that Public Works construed Article 25 as only applying to permits to install Personal Wireless Service Facilities on existing poles.

On January 29, 2016, Public Works adopted DPW Order 184504, which superseded a number of prior orders including DPW Order 179,406. (Exhibit C.) Once again, Public Works expressed its view that its authority under Article 25 was limited to issuing permits to install Personal Wireless Service Facilities on existing utility poles. Section 5(L) of DPW Order 184504 requires a report from a registered engineer "stating that the installation of the proposed Personal Wireless Service Facility: (1) would not compromise the structural integrity of the Utility Pole and will be in compliance with any standards imposed by the Northern California Joint Pole Association in its Operations/Routine Handbook, or the pole owner if other than the Northern California Joint Pole Association; and (2) would comply with the California Public Utilities Commission General Order 95 and/or the National Electric Safety Code."[5]

Just recently, Public Works made it clear to the Board of Supervisors that it construed Article 25 to limit Public Works's authority to issuing Personal Wireless Service Facility Site Permits for existing utility poles only—and not for facilities on new, stand-alone poles. On May 6, 2021, Public Works introduced an ordinance that proposed certain amendments to Article 25.[6]

[5] Each time the Board of Supervisors amended Article 25 Public Works would adopt a new order that superseded the existing order. Public Works also modified the order on its own accord twice. The order in effect right now is DPW Order 201,970. (Exhibit D.) This version, and each of the versions of the order, has retained this language in Section 5.

[6] Under City law and the rules of the Board of Supervisors, any Supervisor, the Mayor, or any City department may introduce legislation for the Board of Supervisors to consider. All ordinances must be approved as to form by the City Attorney's Office.

(Exhibit D.) Some of those proposed amendments would authorize Public Works to issue Personal Wireless Service Facility Site Permits for new stand-alone poles, and establish a process and criteria for those permits.[7]

The Legislative Digest included in the Board of Supervisors' file for the ordinance clearly states that "[u]nder Article 25 of the Public Works Code, Public Works may issue permits to allow telecommunications providers to install Personal Wireless Service Facilities on existing utility poles in the public right-of-way."[8] (Exhibit E.) The digest identifies the purpose of the proposed ordinance:

> The proposed ordinance would authorize Public Works to issue Personal Wireless Service Facility Site Permits ("Permits") to allow telecommunications providers to install Personal Wireless Service Facilities on stand-alone poles in public right-of-ways with existing overhead utility facilities when those existing overhead utility facilities cannot be used for safety reasons. The proposed ordinance would also establish placement and siting criteria to ensure, among other things, that stand-alone poles would not: (i) incommode the public's use of the public right-way; (ii) impact streets where the City has completed, or has plans, for major capital improvements, including streetscape and pedestrian safety improvement; (iii) require the removal of special paving or other special design features; (iv) impact streets that the City has plans

[7] As Verizon Wireless correctly notes, the Board has not taken any action on the proposed ordinance.

[8] Most ordinances will also have as part of the file a Legislative Digest prepared by the City Attorney's Office. The purpose of the Legislative Digest is to help City staff and members of the public understand the pending ordinance.

> to underground in the immediate future; or (v) be installed too close to one another.

The Legislative Digest also mentions the Applications submitted by Verizon Wireless. It notes that "Public Works has started receiving applications for Permits to install Personal Wireless Service Facilities on stand-alone poles, and that "Public Works has not issued any Permits for use of stand-alone poles, because Article 25 does [not] authorize Public Works to issue Permits to install Personal Wireless Service Facilities on stand-alone poles."[9]

For all of these reasons, it is clear that Public Works properly denied the Applications. Public Works does not have the authority to issue Personal Wireless Service Facility Site Permits for new stand-alone poles.

II. THE BOARD CANNOT GRANT THE APPEAL BASED ON VERIZON WIRELESS'S CLAIM THAT STATE AND FEDERAL LAW PREEMPT PUBLIC WORKS FROM DENYING THE APPLICATIONS. THE BOARD'S AUTHORITY IS LIMITED TO DETERMINING WHETHER PUBLIC WORKS ACTED IN ACCORDANCE WITH CITY LAW

Section 4.106(b) of the San Francisco Charter specifies this Board's authority with respect to appeals from Public Works permitting decisions as follows:

> The Board shall hear and determine appeals with respect to any person who has been denied a permit or license, or whose permit or license has

[9] There is a typographical error in the original. The word "to" should have been "not". Any other reading of this sentence would make no logical sense.

> been suspended, revoked or withdrawn, or who believes that his or her interest or the public interest will be adversely affected by the grant, denial, suspension or revocation of a license or permit, except for a permit or license under the jurisdiction of the Recreation and Park Commission or Department, or the Port Commission, or a building or demolition permit for a project that has received a permit or license pursuant to a conditional use authorization.

In addition, under Section 4.106(d) the Board, "[a]fter a hearing and any necessary investigation . . . may concur in the action of the department involved, or by the affirmative vote of four members (or if a vacancy exists, by a vote of three members) overrule the action of the Department. The Board, therefore, is "invested by charter provision and related municipal ordinances with complete power to hear and determine the entire controversy [and is] free to draw its own conclusions from the conflicting evidence before it and, in the exercise of its independent judgment in the matter, affirm or overrule the action of the" permitting agency. (*Lindell Co. v. Board of Permit Appeals of the City and County of San Francisco* (1944) 23 Cal.2d 303, 315.)

Finally, Public Works Code section 1515(c) expressly defines the Board's authority on this appeal: "Board of Appeals Review**.** Upon such appeal, the Board of Appeals shall determine whether the final determination was correct under the provisions of this Article 25."

Consistent with the Charter, and section 1515(c), the courts have repeatedly held that the Board's authority is limited to determining whether a permit was properly issued or denied. The Board cannot ignore the requirements of City law, or issue a permit on grounds not permitted by City law:

> The Board of Permit Appeals is an administrative agency of limited jurisdiction possessing only such powers as have been conferred on it, expressly or impliedly. . . . Although broad policy reasons may exist for not following a zoning requirement in a particular case, *the board is not a law-making body and has no power to disregard or amend the ordinances which define its authority*.

(*City and County of San Francisco v. Board of Permit Appeals* (1989) 207 Cal.App.3d 1099, 1109-1110 (internal quotation marks and citations omitted, emphasis added).) As another court concisely stated: "There can be no doubt that the Board of Permit Appeals is bound by the relevant law as enunciated by appropriate ordinances." (*Board of Permit Appeals of City and County of San Francisco v. Central Permit Bureau of City and County of San Francisco* (1960) 186 Cal.App.2d 633, 640.)

For these reasons, the Board cannot grant the appeal based on the claim that the denial of the Applications is somehow preempted by state or federal law. Only a court can make that determination. The Board's authority is limited to the issue of whether Public Works properly found that under Article 25 it did not have the authority to grant the Applications.

Public Works respectfully requests that the Board deny the appeal and uphold its determination to deny the Applications.

Very truly yours,

Gregory P. Slocum

Commerical Permits Manager

cc: Paul Albritton, attorney for Verizon Wireless (pa@mallp.com)

Exhibit A: Letter of Final Determination dated June 30, 2021

SAN FRANCISCO PUBLIC WORKS

London N. Breed
Mayor

Alaric Degrafinried
Acting Director

Nicolas Huff
Bureau Manager

Street-Use and Mapping
49 South Van Ness Avenue
Suite 300
San Francisco, CA 94103
Phone: (628) 271-2000

sfpublicworks.org
facebook.com/sfpublicworks
twitter.com/sfpublicworks

NOTICE OF FINAL DETERMINATION TO DENY APPLICATION FOR A PERSONAL WIRELESS SERVICE FACILITY SITE PERMIT

6/30/2021

Yadira Cerrato
Project Manager
MODUS, INC for GTE Mobilnet (Verizon Wireless)
240 Stockton Street, Floor 3
San Francisco, CA 94108
(323) 712-2789

Application Number(s) and Location(s):

- **20WR-00055, 1301 REVERE AVE**
- **20WR-00057, 2797 BRYANT ST**
- **20WR-00058, 289 HAMILTON ST**
- **20WR-00059, 1500 SILLIMAN ST**
- **20WR-00060, 300 MADISON ST**
- **21WR-00005, 1900 UNION ST**
- **21WR-00006, 10 AUGUSTA ST**
- **21WR-00007, 18 CERES ST**
- **21WR-00012, 2231 22ND ST**
- **21WR-00060, SAN BRUNO AVE between 3rd St/GIRARD ST to CAMPBELL AVE – EAST SIDE**

Public Works **DENIES** the above-referenced Applications for Personal Wireless Service Facility Site Permits for the following reason(s):

- Under Article 25 of the Public Works Code, Public Works may only issue a Personal Wireless Service Facility Site Permit to install a Personal Wireless Service Facility on an existing utility pole. Public Works cannot issue a Permit for a Personal Wireless Service Facility to be constructed on a stand-alone pole. These applications are for stand-alone poles.

Within fifteen (15) calendar days of the issuance of this notice, GTE Mobilnet

(Verizon Wireless) may appeal the denial of this permit to the Board of Appeals. Appeals must be filed in person by either the appellant or the appellant's agent. For further information regarding the appeal process, please contact the Board of Appeals at 628-652-1150 or boardofappeals@sfgov.org. You may also visit sfgov.org/bdappeal for instructions concerning filing an appeal and for general information concerning the appeals process.

Exhibit B: DPW Order 179,406

City and County of San Francisco

Edwin M. Lee, Mayor
Edward D. Reiskin, Director

(415) 554-6920
FAX (415) 554-69...
http://sfdpw.org

Department of Public Works
GENERAL - DIRECTOR'S OFFICE
City Hall, Room 348
1 Dr. Carlton B. Goodlett Place, S.F., C...

DPW Order No: 179,406

REGULATIONS IMPLEMENTING THE REQUIREMENTS OF SAN FRANCISCO PUBLIC WORKS CODE ARTICLE 25

Section 1. PURPOSE OF ORDER

The purpose of this Order is to implement the requirements of San Francisco Public Works Code Article 25, approved by the Board of Supervisors on January 4, 2011 in Ordinance No. 12-11 and effective on February 14, 2011.

Section 2. DEFINITIONS

A. Use of Defined Terms. Unless the context otherwise specifies or requires, when capitalized the terms defined in this Section shall, for all purposes of this Order, have the meanings specified herein.

B. Defined Terms. The following definitions are to be equally applied to both the singular and plural forms of any of the terms defined herein.

1. "Adjacent" means:

(a) On the same side of the street and in front of the building or the next building on either side, when used in connection with a national historic landmark, California landmark, San Francisco Landmark, structure of merit, architecturally significant building, or locally significant building; and

(b) In front of and on the same side of the street, when used in connection with a City park or open space.

2. "Applicable Law" means all applicable federal, state, and City laws, ordinances, codes, rules, regulations, orders, standard plans and specifications, as the same may be amended or adopted from time to time. "Applicable Law" also means the requirements contained in a Utility Conditions Permit previously issued to an Applicant.

3. "Applicant" means a Person that has applied for a Personal Wireless Service Facility Site Permit. Where the Applicant is an agent for a Person that will be a Permittee, the term Applicant shall include Permittee.

4. "Application" means an application for a Personal Wireless Service Facility Site Permit.

5. "Block Face" means the sidewalk between and including two (2) contiguous curb corners without any intervening street or other roadway, not including alleys.

6. "Business Day" means any Monday through Friday that is not observed as an official holiday by the City.

7. "CEQA" means the California Environmental Quality Act (California Public Resources Code § 21000, et seq.).

8. "City" means the City and County of San Francisco.

9. "Compatibility Standard" means the Planning Protected, Zoning Protected, or Park Protected Compatibility Standard applicable to the proposed location for a Personal Wireless Service Facility as fully described in Public Works Code § 1502(l), (s), (y), and (z).

10. "Complete" when referring to an Application for a Personal Wireless Service Facility Site Permit means that the Applicant has provided the Department with all of the information required in Section 5 below.

11. "Conditions" means any additional requirements that a City department reviewing an Application for a Personal Wireless Service Facility Site Permit has determined are necessary for the Application to meet those requirements of Public Works Code Article 25 that are within that department's purview, provided that no such Conditions may include a requirement that an Applicant use a particular technology for a Personal Wireless Service Facility.

12. "Day" means any calendar day. For the purposes hereof, the time in which an act is to be performed shall be computed by excluding the first Day and including the last. For the purposes hereof, if the time in which an act is to be performed falls on Day that is not a Business Day the time for performance shall be extended to the following Business Day.

13. "Department" means the City and County of San Francisco Department of Public Works.

14. "Director" means the Director of the Department or his or her designee.

15. "FCC" means the Federal Communications Commission.

16. "Graffiti" means any inscription, word, figure, marking or design that is affixed, marked, scratched, drawn or painted on a Personal Wireless Service Facility, whether permanent or temporary, without the consent of Permittee.

17. "Immediate Vicinity" means:

    (a) Within one (1) block in any direction from the boundary of a Planning Protected Location that is a national historic landmark district, listed or eligible national register historic district, listed or eligible California register historic district, San Francisco landmark district, local historic or conservation district, or locally significant district;

    (b) Within twenty-five (25) feet of the property lines from the properties that are Adjacent to a Planning Protected Location that is a national historic landmark, California landmark, San Francisco landmark, structure of merit, architecturally significant building, or locally significant building, or across the street from the above boundary lines;

    (c) Within one (1) block in any direction from the boundary of a Zoning Protected Location; or

    (d) Within one (1) block in any direction from the boundary of a Park Protected Location.

18. "Installation Period" means a time set forth in a Personal Wireless Service Facility Site Permit for Permittee to Substantially Complete Installation of the permitted Personal Wireless Service Facility. Unless a longer period is otherwise stated in the Permit, the Installation Period shall be one (1) year after the issuance of the Permit.

19. "Order" means these Department of Public Works Regulations Implementing the Requirements of San Francisco Public Works Code Article 25.

20. "Park Protected Location" means a proposed location for a Personal Wireless Service Facility in the Public Rights-of-Way that is Adjacent to a City park or open space.

21. "Permittee" means a Person issued a Personal Wireless Service Facility Site Permit by the Department under Public Works Code Article 25 and this Order.

22. "Person" means any natural person, corporation, or partnership.

23. "Personal Wireless Service" means commercial mobile services provided under a license issued by the FCC.

24. "Personal Wireless Service Facility" means antennas and related facilities and equipment used to provide or facilitate the provision of Personal Wireless Service.

25. "Personal Wireless Service Facility Site Permit" or "Permit" means a permit issued under Public Works Code Article 25 and this Order as it has been approved, amended, or renewed by the Department.

26. "Planning Protected Location" means any of the proposed locations for a Personal Wireless Service Facility described in Public Works Code § 1502(r).

27. "Public Health Compliance Standard" means whether:

    (a) Any potential human exposure to radio frequency emissions from a proposed Personal Wireless Service Facility described in an Application is within the FCC guidelines; and

    (b) Noise at any time of the day or night from the proposed Personal Wireless Service Facility described in an Application is not greater than forty-five (45) dBA as measured at a distance three (3) feet from any residential building facade.

28. "Public Rights-of-Way" means the area in, on, upon, above, beneath, within, along, across, under, and over the public streets, sidewalks, roads, lanes, courts, ways, alleys, spaces, and boulevards within the geographic area of the City in which the City now or hereafter holds any property interest, which is dedicated to public use.

29. "Public Works Code" means the S.F. Public Works Code.

30. "Start Installation" or "Starting Installation" means the date when Permittee first installs any of the equipment approved in a Permit.

31. "Step-Down Tier III Facility" means a Personal Wireless Service Facility that would be a Tier III Facility because of the size of the antenna enclosure(s) being added to a Utility or Street Light Pole, but that would not add any equipment enclosure(s) to any Utility or Street Light Pole.

32. "Step-Down Tier II Facility" means a Personal Wireless Service Facility that would be a Tier II Facility because of the size of the antenna enclosure(s) being added to a Utility or Street Light Pole, but that would not add any equipment enclosure(s) to any Utility or Street Light Pole.

33. "Street Light Pole" means a pole used solely for street lighting and which is located in the Public Rights-of-Way.

34. "Substantially Complete Installation" or "Substantial Completion of Installation" means that a permitted Personal Wireless Service Facility is being used to provide or facilitate the provision of Personal Wireless Service.

35. "Tentative Approval" means an approval by a City department of an Application for a Tier III Facility Permit that requires public notice before final approval.

36. "Tier I Criteria" is the criteria for the equipment allowed to be used with a Tier I Personal Wireless Service Facility, as set forth in Public Works Code § 1503(a).

37. "Tier II Criteria" is the criteria for the equipment allowed to be used with a Tier II Personal Wireless Service Facility, as set forth in Public Works Code § 1503(b).

38. “Tier I Facility” is a Personal Wireless Service Facility that complies with the Tier I Criteria.

39. “Tier III Facility” is a Personal Wireless Service Facility that does not meet the Tier I Criteria or Tier II Criteria.

40. “Tier II Facility” is a Personal Wireless Service Facility that complies with the Tier II Criteria.

41. “Tier I Facility Permit” is a Permit to install a Tier I Facility.

42. “Tier III Facility Permit” is a Permit to install a Tier III Facility.

43. “Tier II Facility Permit” is a Permit to install a Tier II Facility.

44. “Tier III Necessity Standard” means whether a Tier II Facility is insufficient to meet the Applicant’s service needs because the Applicant has demonstrated one of the following:

    (a) A Tier II Facility would not provide the coverage or functionality the Applicant requires to meet its service needs in the vicinity of the proposed Tier III Facility.

    (b) Approval of the Application for a Tier III Facility Permit would reduce the number of Personal Wireless Service Facilities that the Applicant would otherwise need to install in the vicinity of the proposed Tier III Facility.

45. “UCP” means a Utility Conditions Permit issued by the Department under S.F. Administrative Code § 11.9(a).

46. “Utility Pole” means a power pole or telephone pole (with or without street lights), transportation or traffic pole, or other similar pole located within the Public Rights-of-Way.

47. “Verified Statement” means a statement that is signed by a Person with knowledge of the contents thereof.

48. “Zoning Protected Location” means a proposed location for a Personal Wireless Service Facility in the Public Rights-of-Way that is within a Residential or Neighborhood Commercial zoning district under the San Francisco Planning Code.

Section 3. GENERAL REQUIREMENTS FOR PERSONAL WIRELESS SERVICE FACILITY SITE PERMITS

A. Permit Required.

A Personal Wireless Service Facility Site Permit shall be required for each and every Personal Wireless Service Facility to be installed in the Public Rights-of-Way. The Department will process each Application for a Personal Wireless Service Facility Permit separately.

B. Application Processing.

1. In accordance with S.F. Campaign and Governmental Conduct Code § 3.400, the Department shall process all Applications for Personal Wireless Service Facility Site Permits in the order in which they are received.

2. There is no limit to the number of Applications for Personal Wireless Service Facility Site Permits that an Applicant may file at any given time. The Department, however, is not required to begin processing more than ten (10) Applications filed by any single Applicant in any period of five (5) consecutive Business Days.

C. CEQA Approval Required.

The Department shall not issue a Personal Wireless Service Facility Site Permit until the Applicant has obtained from the Planning Department any CEQA approval that is required for the construction/installation of the proposed Personal Wireless Service Facility.

Section 4. COMMUNITY MEETINGS

The Department encourages Applicants for Personal Wireless Service Facility Site Permits to meet with local residents and business owners in affected neighborhoods in advance of filing Applications. This is especially true where the Application is for a Tier III Facility Permit.

Section 5. APPLICATION REQUIREMENTS

An Application for a Personal Wireless Service Facility Site Permit shall not be Complete unless it contains all of the following information.

A. Application Form.

Each Applicant for a Personal Wireless Service Facility Site Permit shall submit a completed Application form.

B. Proof of Permission.

An Application shall contain proof that the Applicant has obtained permission from the Utility or Street Light Pole owner(s) to install the proposed Personal Wireless Service Facility on any existing Utility or Street Light Pole, or to replace an existing Utility or Street Light Pole to accommodate the proposed Personal Wireless Service Facility. Proof that the Applicant is a member in good standing of the Northern California Joint Pole Association will be sufficient for joint Utility Poles.

C. Proof of Authority to Use the Public Rights-of-Way

An Application shall contain proof the Applicant has a valid and existing Utility Conditions Permit.

D. Proof of CEQA Compliance.

An Application shall contain proof of the Applicant has obtained any required CEQA approval for the construction/installation of the proposed

An Application shall contain proof the Applicant has obtained any required CEQA approval for the construction/installation of the proposed Personal Wireless Service Facility from the Planning Department, or a statement as to when the Applicant expects to obtain such required CEQA approval.

E. Proof of Compliance with the Public Health Compliance Standard.

An Application shall contain proof of compliance with the Public Health Compliance Standard as follows:

1. An original Verified Statement from a registered engineer to the effect that the Applicant complies with the Public Health Compliance Standard.

2. An Applicant may choose to file only one (1) original Verified Statement of compliance with the Public Health Compliance Standard for every type of equipment that the Applicant intends to use with two (2) or more Applications for Personal Wireless Service Facility Site Permits. After the Department has approved one (1) Application for a Personal Wireless Service Facility Site Permit using a particular type of equipment, when filing any subsequent Applications using the identical equipment the Applicant may file a copy of both the previously filed original Verified Statement and the Department of Public Health's approval of that Verified Statement.

3. Notwithstanding the foregoing, if the Department of Public Health has ever imposed any Conditions on the Applicant's use of a particular type of equipment the Applicant shall include such information in the Application.

F. Location Drawing.

An Application shall contain a location drawing of the proposed Personal Wireless Service Facility in a twenty feet (20') to one inch (1") scale (20:1 scale) showing each of the following:

1. Street name;

2. Names of cross streets;

3. Utility or Street Light Pole to be used;

4. All existing facilities on the Utility Pole or Street Light Pole; and

5. All proposed facilities on the Utility or Street Light Pole.

G. Additional Requirements for Tier II and III Applications.

An Application for a Tier II or Tier III Facility Permit shall contain the following additional information:

1. A photographic simulation of the proposed Personal Wireless Service Facility at the proposed location showing views from across and down the street;

2. A photograph or site drawing in a twenty feet (20') to one inch (1") scale (20:1 scale) showing the location of any existing Personal Wireless Service Facilities in the Public Rights-of-Way that are within a one hundred and fifty foot (150') radius of the proposed Personal Wireless Service Facility.

H. Additional Requirements for Tier III Applications.

An Application for a Tier III Facility Permit shall also contain a Verified Statement demonstrating that the Application complies with the Tier III Necessity Standard.

I. Proof of Compliance with Insurance Requirements.

An Application shall contain a certificate of insurance in a form acceptable to the City's Risk Manager showing that the Applicant complies with the requirements of Public Works Code § 1526.

J. Application Fees.

An Application shall include checks for any fees that are payable to each City department that must review the Application. If a City department is entitled to additional fees under Public Work Code 1527(d), the department shall notify the Applicant at a later date.

Section 6. APPLICATION PROCESS FOR TIER I AND TIER II FACILITY PERMITS

A. Completeness Review.

1. The Department shall first determine whether an Application for a Tier I or Tier II Facility Permit is Complete.

2. The Department shall notify the Applicant within three (3) Business Days of its receipt of an Application whether the Application is Complete.

3. If the Application is Complete, the Department shall process the Application as set forth in this Section.

4. If the Application is not Compete, the Department shall return the Application along with the statement of what additional information the Department requires to make the Application Complete.

B. Suspension or Denial of Application for Lack of Compliance.

The Department may suspend review of or deny a Complete Application for a Tier I or Tier II Facility Permit for either of the following reasons:

1. The Department has issued to the Applicant a notice of deficiency related to any existing Personal Wireless Service Facility Site Permit, and the Applicant has not corrected the deficiency within a reasonable time as required by the Department under Section 27 below.

2. The Applicant has failed to file an Application for a Personal Wireless Service Facility Site Permit for a Personal Wireless Service Facility that was installed either before the effective date of Ordinance No. 214-07 or pursuant to a permit issued under S.F. Administrative Code § 11.9(b), at the time when such Application is required by Section 31 below.

C. Initial Review of Complete Tier I Applications.

Within (5) Business Days of the Department's determination that an Application for a Tier l Facility Permit is Complete, the Department shall:

1. Notify the Applicant whether the Application satisfies the Tier I Criteria and whether any Conditions will be added to the Department's approval of an Application that satisfies the Tier I Criteria.

2. Refer the Application to the Department of Public Health for review under the Department of Public Health Compliance Standard.

D. Initial Review of Complete Tier II Applications.

Within (5) Business Days of the Department's determination that an Application for a Tier II Facility Permit is Complete, the Department shall:

1. Notify the Applicant whether the Application satisfies the Tier II Criteria and whether any Conditions will be added to the Department's approval of an Application that satisfies the Tier II Criteria.

2. Refer the Application to the Department of Public Health for review under the Department of Public Health Compliance Standard.

3. If required, or if the Department exercises its discretion, refer the Application to the Planning and/or Recreation and Park Department for review under the appropriate Compliance Standard. If referral is discretionary, DPW will notify Applicant of the referral.

E. Initial Review of Complete Applications for Step-Down Tier II or Step-Down Tier III Facilities.

1. Within (5) Business Days of the Department's determination that an Application for a Step-Down Tier II or Step-Down Tier III Facility is Complete, the Department shall notify the Applicant whether the Application has been correctly designated a Step-Down Tier II or Step-Down Tier III Facility.

2. If the Application is correct, the Department shall process an Application for a Step-Down Tier II Facility as an Application for a Tier I Facility Permit and an Application for a Step-Down Tier III Facility as an Application for a Tier II Facility Permit.

3. If the Application is incorrect, the Department shall process an Application for a Step-Down Tier II Facility as an Application a Tier II Facility Permit and an Application for a Step-Down Tier III Facility as an Application for a Tier III Facility Permit unless the Applicant notifies the Department that it will elect either to: (a) withdraw the incorrect Application; or (b) modify the incorrect Application to comply with the requirements for a Step-Down Tier II or Tier III Facility. In either case, the Department will return the Application to the Applicant.

F. Final Determinations.

1. The Department shall issue a final determination denying an Application for a Tier I or Tier II-A Facility Permit within three (3) Business Days of any of the following events:

   (a) The Department's determination that the Application does not meet the Tier I or Tier II Criteria, as applicable;

   (b) The Department's receipt of a determination from the Department of Public Health that the Application does not comply with the Public Health Compliance Standard; or

   (c) If the Department exercised its discretion under Public Works Code § 1509(a)(2) to refer a Tier II-A Application to the Planning and/or Recreation and Park Department, the Department's receipt of a determination from either of those City departments that the Application does not satisfy the applicable Compatibility Standard; or

   (d) If any City department adds any Conditions to its approval of the Application, the Department's receipt of a notice from the Applicant that it rejects any of those Conditions.

2. The Department shall issue a final determination approving an Application for a Tier I or Tier II-A Facility Permit within three (3) Business Days of the occurrence of the last of the following events:

   (a) The Department's determination that the Application meets the Tier I or Tier II Criteria, as applicable; or

   (b) The Department's receipt of a determination from the Department of Public Health that the Application complies with the Public Health Compliance Standard; or

   (c) If the Department exercised its discretion to refer a Tier II-A Application to the Planning and/or Recreation and Park Department, the Department's receipt of a determination from either of those City departments (or both if required) that the Application satisfies the applicable Compatibility Standard; or

   (d) If any City department adds any Conditions to its approval of the Application, the Department's receipt of a notice from the Applicant that it accepts all of those Conditions.

3. The Department shall issue a final determination denying an Application for a Tier II-B or Tier II-C Facility Permit within three (3) Business Days of any of the following events:

   (a) The Department's determination that the Application does not meet the Tier II Criteria;

(b) The Department's receipt of a determination from the Department of Public Health that the Application does not comply with the Public Health Compliance Standard; or

(c) The Department's receipt of a determination from the Planning and/or the Recreation and Park Department that the Application does not satisfy the applicable Compatibility Standard; or

(d) If any City department adds any Conditions to its approval of the Application, the Department's receipt of a notice from the Applicant that it rejects any of those Conditions.

4. The Department shall issue a final determination approving an Application for a Tier II-B or Tier II-C Facility Permit within three (3) Business Days of the occurrence of the last of the following events:

(a) The Department's receipt of a determination from the Department of Public Health that the Application complies with the Public Health Compliance Standard; or

(b) The Department's receipt of a determination from the Planning and/or the Recreation and Park Department that the Application satisfies the applicable Compatibility Standard; or

(c) If any City department adds any Conditions to its approval of the Application, the Department's receipt of a notice from the Applicant that it accepts all of those Conditions.

Section 7. APPLICATION PROCESS FOR TIER III FACILITY PERMITS

A. Completeness Review.

1. The Department shall first determine whether an Application for a Tier III Facility Permit is Complete.

2. The Department shall notify the Applicant within five (5) Business Days of its receipt of the Application whether the Application is Complete.

3. If the Application is Complete, the Department shall process the Application as set forth below.

4. If the Application is not Compete, the Department shall return the Application along with the statement of what additional information the Department requires to make the Application Complete.

B. Suspension or Denial of Application for Lack of Compliance.

The Department may suspend review of or deny a Complete Application for a Tier lII Facility Permit for either of the following reasons:

1. The Department has issued to the Applicant a notice of deficiency related to any existing Personal Wireless Service Facility Site Permit, and the Applicant has not corrected the deficiency within a reasonable time as required by the Department under Section 27 below.

2. The Applicant has failed to file an Application for a Personal Wireless Service Facility Site Permit for a Personal Wireless Service Facility that was installed either before the effective date of Ordinance No. 214-07 or pursuant to a permit issued under S.F. Administrative Code § 11.9(b), at the time when such Application is required by Section 31.

C. Initial Review of Complete Applications.

Within (5) Business Days of the Department's determination that an Application for a Tier III Facility Permit is Complete, the Department shall notify the Applicant:

1. Whether the Application satisfies the Tier III Necessity Standard.

2. Whether the Department will add any Conditions to the Department's Tentative Approval of a Tier III Facility Permit that satisfies the Tier III Necessity Standard.

D. Referral to Other City Departments.

Immediately following the Department's determination that the Application satisfies the Tier III Necessity Standard, the Department shall:

1. Refer the Application to the Department of Public Health for review under the Department of Public Health Compliance Standard.

2. Refer the Application to the Planning and/or Recreation and Park Department for review under the appropriate Compliance Standard.

E. Tentative Approvals.

The Department shall issue a Tentative Approval of an Application for a Tier III Facility Permit within three (3) Business Days of the occurrence of the last of the following events:

1. The Department's receipt of a determination from the Department of Public Health that the Application complies with the Public Health Compliance Standard; or

2. The Department's receipt of a determination from the Planning and/or the Recreation and Park Department that the Application satisfies the applicable Compatibility Standard; or

3. If any City department adds any Conditions to its approval of the Application, the Department's receipt of a notice from the Applicant that it accepts all of those Conditions.

F. Final Determinations

F. Final Determinations.

1. The Department shall issue a final determination denying an Application for a Tier III Facility Permit without a Tentative Approval within three (3) Business Days of any of the following events:

(a) The Department's determination that the Application does not meet the Tier III Necessity Standard;

(b) The Department's receipt of a determination from the Department of Public Health that the Application does not comply with the Public Health Compliance Standard;

(c) The Department's receipt of a determination from the Planning and/or Recreation and Park Department that the Application does not satisfy the applicable Compatibility Standard; or

(d) If any City department reviewing the Application adds any Conditions to its approval of the Application, the Department's receipt of a notice from the Applicant that it rejects any of those Conditions.

2. The Department shall issue a final determination denying an Application for a Tier III Facility Permit with a Tentative Approval that is subject to a protest within three (3) Business Days after the Director issues a decision upholding the protest and denying the Application.

3. The Department shall issue a final determination approving an Application for a Tier III Facility Permit with a Tentative Approval as follows:

(a) If no protest is timely submitted, the Department shall issue a final determination approving the Application within ten (10) Business Days after the time to file a protest has expired; or

(b) If a protest is timely submitted, the Department shall issue a final determination approving the Application within two (2) Business Days after the Director issues a decision denying the protest and approving the Application

Section 8. PLANNING DEPARTMENT REVIEW

A. Referral Required or Allowed.

1. Prior to approving an Application for a Tier II-B Facility Permit, the Department shall refer the Application to the Planning Department for review under the appropriate Planning or Zoning Protected Location Compatibility Standard.

2. Prior to approving an Application for a Tier III-A or Tier III-B Facility Permit, the Department shall refer an Application that satisfies the Tier III Necessity Standard to the Planning Department for review under the appropriate Planning or Zoning Protected Location Compatibility Standard.

3. The Department may refer an Application for a Tier II-A Facility Permit to the Planning Department if the proposed location for the Personal Wireless Service Facility is in the Immediate Vicinity of a Planning Protected or Zoning Protected Location. After referral, the Application shall be treated as an Application for a Tier II-B Facility.

B. Approval Required.

The Department shall not approve an Application for a Tier II-B, Tier III-A, or Tier III-B Facility Permit unless the Planning Department determines that the Application satisfies the appropriate Planning or Zoning Protected Location Compatibility Standard.

C. Conditions.

1. The Planning Department's determination that an Application for a Tier II-B or Tier III-B Facility Permit satisfies the Planning Protected or Zoning Protected Location Compatibility Standard may include such Conditions as the Planning Department deems appropriate to insure that the Application satisfies the applicable Planning or Zoning Protected Location Compatibility Standard.

2. The Planning Department's determination that an Application for a Tier II-B or Tier III-B Facility Permit satisfies the Zoning Protected Location Compatibility Standard for a location that is within a Residential zoning district may include a Condition that the Personal Wireless Service Facility not obstruct the view from or the light into any adjacent residential window.

3. The Planning Department's determination that an Application for a Tier II-B or Tier III-B Facility Permit satisfies the Planning Protected or Zoning Protected Location Compatibility Standard may include a Condition that Permittee plant and maintain an appropriate street tree adjacent to the Utility or Street Light Pole so as to provide a screen for the permitted Personal Wireless Service Facility.

Section 9. RECREATION AND PARK DEPARTMENT REVIEW

A. Referral Required or Allowed.

1. Prior to approving an Application for a Tier II-C Facility Permit, the Department shall refer the Application to the Recreation and Park Department for review under the Park Protected Location Compatibility Standard.

2. Prior to approving an Application for a Tier III-C Facility Permit, the Department shall refer an Application that satisfies the Tier III Necessity Standard the Recreation and Park Department for review under the Park Protected Location Compatibility Standard.

3. The Department may refer an Application for a Tier II-A Facility Permit to the Recreation and Park Department if the proposed location for the Personal Wireless Service Facility is in the Immediate Vicinity of a Park Protected Location. After referral, the Application shall be treated as an Application for a Tier II-C Facility.

B. Approval Required.

The Department shall not approve an Application for a Tier II-C or Tier III-C Facility Permit unless the Recreation and Park Department determines that the Application satisfies the Park Protected Location Compatibility Standard.

C. Conditions.

1. The Recreation and Park Department's determination that an Application for a Tier II-C or Tier III-C Facility Permit satisfies the Park Protected Location Compatibility Standard may include such Conditions as the Recreation and Park Department deems appropriate to insure that the Application satisfies the Park Protected Location Compatibility Standard.

2. The Recreation and Park Department's determination that an Application for a Tier II-C or Tier III-C Facility Permit satisfies the Park Protected Location Compatibility Standard may include a Condition that Permittee plant and maintain an appropriate street tree adjacent to the Utility or Street Light Pole so as to provide a screen for the permitted Personal Wireless Service Facility.

Section 10. DEPARTMENT OF PUBLIC HEALTH REVIEW

A. Referral Required.

Prior to approving an Application for a Personal Wireless Service Facility Site Permit, the Department shall refer the Applicant's Verified Statement concerning compliance with the Public Health Compliance Standard to the Department of Public Health for review under the Public Health Compliance Standard.

B. Approval Required.

The Department shall not approve an Application for a Personal Wireless Service Facility unless the Department of Public Health determines that the Application complies with the Public Health Compliance Standard.

C. Conditions.

The Department of Public Health's determination that an Application for a Personal Wireless Service Facility Site Permit complies with the Public Health Compliance Standard may include such Conditions as the Department of Public Health deems appropriate to insure such compliance.

Section 11. PROCEDURE FOR IMPOSING CONDITIONS OF APPROVAL

A. Time for Notice of City Department Conditions.

1. If the Department imposes any Conditions on its approval of an Application for a Tier I or Tier II Facility Permit, the Department shall notify the Applicant in writing of the Conditions along with the Department's determination that the Application satisfies the Tier I or Tier II Criteria.

2. If the Department imposes any Conditions on its Tentative Approval of an Application of a Tier III Facility Permit, the Department shall notify the Applicant in writing of the Conditions along with its Tentative Approval.

3. If any other City department imposes any Conditions on its approval or Tentative Approval of an Application for a Personal Wireless Service Facility Site Permit, the Department shall notify the Applicant in writing of the Conditions within two (2) Business Days of receipt of the determination from the applicable City department.

B. Contents of Notice of City Department Conditions.

The Department's notice of City Department conditions shall:

1. State in detail all of the Conditions required for the Department to approve the Application for a Personal Wireless Service Facility;

2. Identify the City department that imposed the Conditions; and

3. State that the Applicant has five (5) Business Days to notify the Department whether it accepts the Conditions.

C. Acceptance or Rejection of Conditions.

1. In the Applicant fails to timely accept any City department conditions, the Department shall treat the Conditions as rejected and deny the Application.

2. At the request of the Applicant in writing, the Department may extend the time for the Applicant to determine whether to accept or reject the Conditions.

D. Objections to Conditions.

1. Within five (5) Business Days of receipt of notice that a City department has imposed any Conditions in its approval of an Application for a Personal Wireless Service Facility the Applicant may send the applicable City department written objections to the Conditions and request that the department modify one or more of those Conditions.

2. At the request of the Applicant in writing, the Department may extend the time for the Applicant to determine whether to object to any Conditions.

3. Within five (5) Business Days of receipt of the Applicant's objections, the applicable City Department will notify the Applicant of any modifications to the Conditions. This notice will restart the time for the Applicant to notify the Department whether it accepts the Conditions (whether or not modified by a City department).

Section 12. NOTICE OF TENTATIVE APPROVAL OF TIER III FACILITY PERMIT

A. Department's Notice to Applicant.

The Department shall notify the Applicant of a Tentative Approval of an Application for a Tier III Facility Permit as follows:

1. Within three (3) Business Days of the receipt of any required Tentative Approval of the Application from all City departments that must review the Application if no City department has included any Conditions of approval.

2. Within three (3) Business Days of the receipt of notice that the Applicant has accepted any and all Condition imposed by any City department.

B. Applicant's Notice to the Public.

1. The Applicant shall notify the public of a Tentative Approval of an Application for a Tier III Facility by mailing and posting the notice required by Public Works Code § 1512(b) within five (5) Business Days of receipt of the Tentative Approval from the Department.

2. The Applicant shall promptly notify the Department of its compliance with the requirements of Public Works Code § 1512(b). The Applicant shall provide the Department with a copy of the notices mailed and posted along with the following information:

(a) A list of all Persons to whom the Applicant sent the notice, and a statement that the list complies with Public Works Code § 1512(b)(1);

(b) A list of all locations where the Applicant posted the notice, and a statement that the locations comply with Public Works Code § 1512(b)(2); and

.

(c) The date the notices were mailed and posted.

3. Notwithstanding the foregoing, at the request of the Applicant in writing the Department may grant the Applicant additional time to comply with the notice requirements of Public Works Code § 1512.

C. Contents of Notice.

The Applicant's notice shall contain all of the information specified in Public Works Code § 1512(c).

D. Failure to Issue Proper Notice.

The Department shall not complete processing of an Application for a Tier III Facility Permit until the Department determines that the Applicant fully complied with the requirements of Public Works Code § 1512.

Section 13. PROCEDURE FOLLOWING A PROTEST

A. Notice of Protest.

1. The Department shall promptly give notice of any protest to the Applicant and any City department that reviewed the Application.

2. The notice shall include a copy of the protest.

B. Responses to Protest.

1. The Applicant may submit a response to the protest within seven (7) Business Days of receiving the protest from the Department. The Applicant shall serve a copy of its response on the protester and any City department that reviewed the Application.

2. The Department may submit a response to the protest within seven (7) Business Days of sending the protest to the Applicant. The Department shall serve a copy of its response on the protester, the Applicant, and any other City department that reviewed the Application.

3. Any other City department that reviewed the Application may submit a response to the protest within seven (7) Business Days of receiving the protest from the Department. Such City department shall serve a copy of its response on the protester, the Applicant, and any other City department that reviewed the Application.

4. The Department may agree in writing to extend the Applicant's time for filing a response. The Applicant shall promptly notify the protester and any other City department of the extension in writing. The Applicant's extension will have the effect of extending the time for City departments to file their responses.

C. Manner of Service.

Service of any notice or response required under this Section shall be by e-mail, unless a protester has not provided the Department with an e-mail address, in which case service to the protester shall be by U.S. Mail.

D. Notice of Hearing Date.

In addition to the written notice required by Public Works Code § 1513(c), the Department shall notify the general public of the hearing by:

1. Placing a notice in the official newspaper of the City and County of San Francisco;

2. Posting a notice on the bulletin board in front of the Office of the Board of Supervisors, City Hall Room 244;

3. Posting a notice of the meeting on the Department's website; and

4. Sending the notice to any Person requesting notice of any Tentative Approval of a Personal Wireless Service Facility Site Permit.

E. Conduct of Hearing.

This Section sets forth minimum requirements for the conduct of a hearing following a protest of a Tentative Approval. Hearing officers may

This Section sets forth minimum requirements for the conduct of a hearing following a protest of a Tentative Approval. Hearing Officers may establish additional rules, not inconsistent with Public Works Code Article 25 and this Order, for the conduct of the hearing.

1. The evidentiary portion of the hearing shall be conducted in the following manner:

   (a) The hearing officer shall make part of the record all the documentation set forth in Public Works Code § 1513(e).

   (b) The hearing officer shall make part of the record any documents submitted to the Department prior to the hearing.

   (c) The hearing officer will take testimony. Any Person attending the hearing may testify and introduce documents into the record. The hearing officer shall determine in advance of the hearing how much time shall be allotted to each Person seeking to testify. The hearing officer may allot more time for the protester and the Applicant than for other Persons participating in the hearing. If there is more than one protester, the Applicant shall be allotted at least as much time as that allotted to all of the protestors.

   (d) The hearing officer shall hear testimony in the following order: (i) any protester; (ii) any Person supporting the protest; (iii) the Applicant; (iv) any Person supporting the Application; (v) the Department; and (vi) any other City department. The hearing officer may also allow for a rebuttal from each protester.

   (e) Only the hearing officer may ask questions of a witness. Any Person attending the hearing may propose questions for the hearing officer to ask of a witness. The hearing officer may allot additional time to a witness when the hearing officer poses questions.

2. The hearing officer is not bound by formal rules of evidence. All relevant evidence may be admitted if it is the sort of evidence upon which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule that would render the admission of such evidence improper in a civil action.

3. With the agreement of the parties, the hearing officer may continue the hearing in order to receive additional evidence.

F. Hearing Officer's Report.

The hearing officer shall issue a written report and recommendation within ten (10) Business Days of the close of evidence. The report shall include a summary of the evidence and a recommendation to the Director to either uphold or deny the protest of an Application.

G. Director's Decision.

The Director shall issue a written decision adopting, modifying, or rejecting the hearing officer's report and recommendation with seven (7) Business Days of receipt of the report.

Section 14. POST PROTEST MODIFICATION OF APPLICATION

A. Modification Encouraged To Resolve Protest.

The Department encourages an Applicant for a Personal Wireless Service Facility Site Permit that is the subject of a protest to meet with protester at any time after a protest is filed to determine whether the Application can be modified so as to obviate the need for the protest.

B. Hearing May Be Postponed or Suspended.

1. To facilitate cooperation between the Applicant and any protestors, the Applicant may request one or more of the following, in writing:

   (a) That the Department postpone the deadline for filing a response to a protest;

   (b) That the Department postpone issuing a notice of hearing date;

   (c) That the Department postpone the hearing date; and/or

   (d) That the hearing officer suspend the hearing.

2. The Department shall notify any protester that the hearing has been postponed or suspended as a result of a request by the Applicant.

C. Limited Modification.

Any modification allowed under this Section must concern the Personal Wireless Service Facility to be installed on the Utility or Street Light Pole identified in the Application. Moving the proposed Personal Wireless Service Facility to another Utility or Street Light Pole is not the type of modification that can be allowed following a protest.

D. Procedure Following Agreement.

If the Applicant and every protester agree to modify the Application, the following shall occur:

1. The hearing officer shall discontinue the hearing.

2. The Applicant shall submit a revised Application that contains the agreed upon modifications. The Applicant will provide the protesters with a copy of the revised Application.

3. The protesters shall withdraw the protest, provided the Permit contains the agreed upon modifications and the Application is otherwise the same as the original Application.

4. The Department shall issue a final determination approving the Application as modified within five (5) Business Days of receipt of the revised Application, provided that the Department determines that the revised Application contains the agreed upon modifications and is otherwise the same as the original Application.

Section 15. NOTICE OF FINAL DETERMINATION

A. Department's Notice.

1. The Department shall notify the Applicant of a final determination to deny an Application for a Personal Wireless Service Facility Site Permit.

2. The Department shall provide notice of a final determination to approve an Application for a Personal Wireless Service Facility Site Permit as follows:

(a) To the Applicant and to any neighborhood association identified by the Planning Department for any neighborhood within three hundred (300) feet of the permitted Personal Wireless Service Facility.

(b) If a hearing was held following a protest of an Application for a Tier III Facility Permit, to any Person who either filed a protest, submitted evidence, or appeared at the hearing, and whose name and address is known to the Department.

(c) To any Person requesting notice of a final determination to approve an Application for a Personal Wireless Service Facility Site Permit.

3. Service of any notice required under this Section shall be by e-mail, unless an e-mail address is not available for any Person entitled to notice, in which case the notice to that Person shall be by U.S. Mail.

B. Applicant's Notice to the Public.

1. Immediately upon receipt a notice of final determination from the Department approving an application the Applicant shall post the notice in conspicuous places throughout the Block Face where the permitted Personal Wireless Service Facility is to be located.

2. After posting the notice, the Applicant shall provide the Department with a list of all locations where the Applicant posted the notice and the date when posted.

C. Form of Notice of Final Determination.

A notice of final determination approving an Application for a Personal Wireless Service Facility Site Permit shall contain the information required in Public Works Code § 1514(a)(2).

Section 16. INSTALLATION OF STREET TREES

A. When Installation of Street Tree Required.

1. The Department shall notify the Department's Bureau of Urban Forestry of the proposed location for the Personal Wireless Service Facility immediately upon receipt of a determination from the Planning and/or Recreation and Park Department that said City department has imposed a Condition on a Personal Wireless Service Facility Site Permit, pursuant to Public Works Code § 1506, that the Applicant install a street tree.

2. The Department's Bureau of Urban Forestry shall work with Permittee and the adjacent property owner to determine whether the site is appropriate for a street tree and, if so, to select the appropriate species and location for the any tree the Planning and/or Recreation and Park Department has required as a Condition of approval of a Personal Wireless Service Facility Site Permit.

3. If the Department's Bureau of Urban Forestry, Permittee, and the adjacent property owner determine the site is appropriate for a street tree, the Department shall include in a Personal Wireless Service Facility Site Permit a description of the required tree and location.

4. Permittee shall install any street tree required in a Personal Wireless Service Facility Site Permit within six (6) months of the Applicant's issuance of a notice of Substantial Completion of Installation.

5. Permittee shall notify the Department's Bureau of Urban Forestry at least seventy-two (72) hours prior to installation of the required street tree.

B. "In-Lieu" Payment into Adopt-A-Tree Fund.

1. If the Department's Bureau of Urban Forestry, Permittee, and adjacent property owner determine that a street tree is inappropriate at the proposed location for the Applicant's Personal Wireless Service Facility, the Department shall instead require the Applicant to make an "in-lieu" payment into the Department's "Adopt-A-Tree" fund.

2. As specified in Public Works Code §§ 802(h) and 807(f), the amount of the "in-lieu" fee shall be $1,641 per tree, or such adjusted amount authorized under those sections. The "in-lieu" fee shall be payable prior to the Department's issuance of the Personal Wireless Service Facility Site Permit.

C. Care and Maintenance of Street Trees.

1. Permittee shall be responsible for the care and maintenance of any street tree required to be installed by Permittee in the Public Rights-of-Way under Public Works Code § 1506. In this regard, Permittee shall assume the duty of a "property owner" as set forth in Public Works Code § 805.

2. For a fee to be determined by the Department, Permittee may elect to have the Department be responsible for the care and maintenance of any street required to be installed in the Public Rights-of-Way under Public Works Code § 1506. The terms and conditions of the Department's duties and responsibilities shall be contained in a separate agreement between Permittee and the Department.

Section 17. PERSONAL WIRELESS SERVICE FACILITY SITE PERMITS

A Personal Wireless Service Facility Site Permit shall be in a form approved by the Department and shall contain such information as the Department deems appropriate. In addition, the Department shall include in the Permit any Condition imposed by any City department and accepted by Permittee.

Section 18. INSTALLATION

A. Installation Period and Extension.

1. Permittee must Start Installation of a Personal Wireless Service Facility authorized by a Personal Wireless Service Facility Site Permit within the Installation Period unless the Department, on the written request of Permittee, extends the Installation Period.

2. The Department shall grant a request to extend the Installation Period if Permittee shows that additional time is needed for reasons directly related to construction requirements. The Department may deny a request to extend the Installation Period if the request is made for any other reason. The Department shall inform Permittee of its decision to grant or deny a request for an extension within five (5) Business Days of the request.

3. Any extension of the Installation Period granted by the Department may be subject to additional special conditions, including, but not limited to, conditions that ensure the timely Start and Substantial Completion of Installation during the extended Installation Period.

B. Starting Installation.

Permittee shall provide the Department with a notice of Starting Installation within five (5) Business Days of Starting Installation of a Personal Wireless Service Facility.

C. Substantial Completion of Installation.

1. Permittee shall Substantially Complete Installation of a Personal Wireless Service Facility within sixty (60) Days of Starting Installation.

2. Permittee shall file with the Department a notice of Substantial Completion of Installation within five (5) Business Days of Substantial Completion of Installation of a Personal Wireless Service Facility.

3. Permittee shall file with the Department a Verified Statement from a registered engineer that the permitted and installed Personal Wireless Service Facility complies with the Public Health Compliance Standard within thirty (30) Business Days of Substantial Completion of Installation of a Personal Wireless Service Facility.

D. Failure to Timely Start and/or Substantially Complete Installation.

If Permittee fails to timely Start Installation within the Installation Period, or Substantially Complete Installation as required by this Section, the Department may revoke the previously issued Personal Wireless Service Facility Site Permit.

Section 19. CONSTRUCTION REQUIREMENTS

A. Compliance with Permit.

Permittee's construction of a Personal Wireless Service Facility shall fully comply with Permittee's Personal Wireless Service Facility Site Permit, including any Conditions contained therein.

B. Other Permits and Authorizations.

Permittee shall obtain all other permits and authorizations from the Department or third parties that may be required prior to construction of any Personal Wireless Service Facility in the Public Rights-of-Way.

C. Department of Parking and Traffic.

Permittee shall contact the Department of Parking and Traffic for traffic requirements prior to beginning construction/installation.

D. Traffic Regulations.

Permittee shall conduct its construction/installation operations in accordance with the requirements of Article 11 of the S.F. Traffic Code.

E. Damage to Existing Facilities.

Permittee shall be solely responsible for any damage to existing facilities caused by Permittee's construction/installation activities.

F. Damage to the Public Rights-of-Way.

Permittee shall be solely responsible for any damage to the Public Rights-of-Way caused by Permittee's construction/installation activities.

Section 20. INSPECTION

A. Time for Inspection.

The Department shall inspect a permitted and installed Personal Wireless Service Facility as required under Public Works Code § 1516(b) within five (5) Business Days after receipt of notice of Substantial Completion of Installation required under Section 18 above.

B. Requirements of Inspection.

The Department shall inspect an installed Personal Wireless Service Facility to determine whether:

1. The installation is in accordance with the requirements of the Personal Wireless Service Facility Site Permit, including any Conditions imposed by any City department and accepted by Permittee.

2. The permitted Personal Wireless Service Facility complies with the Public Health Compliance Standard.

C. Notice of Deficiency.

The Department shall issue a notice of deficiency under Public Works Code § 1517(b) and Section 27 below if the Department determines after an inspection that an installed Personal Wireless Service Facility is not in compliance with a Personal Wireless Service Facility Site Permit, including any Conditions imposed by any City department and accepted by Permittee, or the Public Health Compliance Standard.

Section 21. TERM AND RENEWAL

A. Term.

1. A Personal Wireless Service Facility Site Permit shall have a term of two (2) years.

2. The term shall commence upon the Applicant's filing of a Notice of Substantial Completion as required under Section 20 above.

B. Notice of Expiration of Permit.

1. Thirty (30) Days prior to the expiration of a Personal Wireless Service Facility Site Permit that may be renewed the Department shall notify Permittee that the Permit will expire if not renewed.

2. Ninety (90) Days prior to the expiration of a Personal Wireless Service Facility Site Permit that may not be renewed the Department shall notify a Permittee that the Permit will expire and that Permittee may file an Application for a new Permit at the same location.

C. Renewal.

1. Under Public Works Code § 1520, Permittee may renew a Personal Wireless Service Facility Site Permit for up to four (4) additional terms of two (2) years.

2. Permittee seeking to renew a Personal Wireless Service Facility Site Permit shall submit a renewal Application under Section 22 below. Permittee may submit the renewal Application no sooner than sixty (60) Days prior to the expiration of the term of the Permit.

D. Application for New Permit.

1. At least thirty (30) Days prior to the expiration of the ten (10) year term of a Personal Wireless Service Facility Site Permit, Permittee may file an Application for a new Permit.

2. A timely filed Application for a new Permit will extend the term of a Permit until the Department either denies or approves the Application for a new Permit.

Section 22. RENEWAL PROCEDURE

A. Renewal Application.

An Application to renew a Personal Wireless Service Facility Site Permit shall contain the following:

1. A completed renewal Application form.

2. A Verified Statement from a registered engineer that the operation of the permitted and installed Personal Wireless Service Facility complies with the Public Health Compliance Standard.

3. A Verified Statement that no readily available technology makes it feasible for the Applicant to replace the existing equipment with less visually obtrusive equipment based on the identical technology used for the permitted Personal Wireless Service Facility.

B. Completeness Review.

1. The Department shall first determine whether a renewal Application is Complete.

2. The Department shall notify the Applicant within three (3) Business Days whether the renewal Application is Complete.

3. If the renewal Application is Complete, the Department shall process the Application as set forth below.

4. If the renewal Application is not Compete, the Department shall return the Application along with the statement of what additional information the Department requires to make the Application Complete.

C. Initial Review of Complete Renewal Applications.

Within (5) Business Days of the Department's determination that a renewal Application is Complete, the Department shall:

1. Determine whether there have been any changes to Applicable Law that would allow the Department to deny a new Application for the identical Personal Wireless Service Facility Site Permit at the permitted location. If so, the Department shall notify the Applicant that the renewal Application will be reviewed in the same manner as would a new Application for a Personal Wireless Service Facility Site Permit.

2. Determine whether Applicable Law concerning human exposure to radio frequency emissions has changed since the date of the approval of the Application. If so, the Department shall refer the renewal Application to the Department of Public Health.

3. Determine whether there have been any changes in Applicable Law affecting the location of the permitted Tier II or Tier III Personal Wireless Service Facility such that an Application that had not been referred to the Planning and/or Recreation and Park Department at the time it was approved must now be referred to one or both of those City departments. If so, the Department shall refer the renewal Application to the Planning and/or Recreation and Park Department.

4. Determine whether the Department should exercise its discretion to refer an Application to renew a Tier II Facility Permit to the Planning and/or Recreation and Park Department if the location of the Personal Wireless Service Facility is in the Immediate Vicinity of a Planning Protected, Zoning Protected, or Park Protected Location.

D. Effect of Renewal Application.

A timely filed renewal Application will extend the term of a Permit until the Department either denies or approves the renewal Application.

E. Deadline for Final Determination.

1. If the Department does not refer a renewal Application to any other City department, the Department shall issue a final determination approving or denying the renewal Application within fifteen (15) Business Days of receipt of a completed Application.

2. If the Department refers the renewal Application to the Department of Public Health department and to no other City department, the Department shall issue a final determination approving or denying the renewal Application within three (3) Business Days of receipt of a determination from the Department of Public Health that the installed Personal Wireless Service Facility complies or does not comply with the Public Health Compliance Standard and Applicable Law related to human exposure to radio frequency emissions.

3. If the Department refers the renewal Application to the Planning and/or Recreation and Park Department, the Department shall process the renewal Application as it would any Application for a Personal Wireless Service Facility Site Permit under Public Works Code Article 25 and this Order.

F. Approval of Renewal Application.

The Department shall approve a renewal Application provided that:

1. There have been no changes to Applicable Law that would allow the Department to deny a new Application for a Personal Wireless Service Facility Site Permit for the identical Personal Wireless Service Facility at the permitted location; and

2. An Applicant has shown that there is no readily available technology for Personal Wireless Service Facilities that would make it feasible for the Applicant for a renewal Permit to replace the existing equipment with less visually obtrusive equipment based on the identical technology used for the permitted Personal Wireless Service Facility.

G. Denial of Renewal Application.

The Department shall deny a renewal Application for either of the following reasons:

1. An Applicant fails to provide the Department with a Verified Statement from a registered engineer confirming that the permitted Personal Wireless Service Facility complies with the Public Health Compliance Standard; and/or

2. The Planning and/or Recreation and Park Department recommend denial of the Application under the newly applicable Compatibility Standard.

3. The Applicant has not shown that there is no readily available technology for Personal Wireless Service Facilities that would make it feasible for the Applicant for a renewal Permit to replace the existing equipment with less visually obtrusive equipment based on the identical technology used for the permitted Personal Wireless Service Facility.

H. Suspension or Denial for Lack of Compliance.

The Department may suspend review of or deny a renewal Application for any one (1) of the following reasons:

1. The Department has issued to the Applicant a notice of deficiency related to any existing Personal Wireless Service Facility Site Permit, and the Applicant has not corrected the deficiency within a reasonable time as required by the Department under Section 27 below.

2. The Applicant has failed to file an Application for a Personal Wireless Service Facility Site Permit for a Personal Wireless Service Facility that was installed either before the effective date of Ordinance No. 214-07 or pursuant to a permit issued under S.F. Administrative Code § 11.9(b), at the time when such Application is required by Section 31 below.

I. Public Notice of Approval.

Public notice of a Department determination to approve a renewal Application is required only if the renewal Application is required to be reviewed by the Planning and/or Recreation and Park Department due to changes in Applicable Law affecting the location of a permitted Tier II or Tier III Personal Wireless Service Facility.

J. Effect of Approval.

The Department's approval of a renewal Application shall extend the term of a Personal Wireless Service Facility for another two (2) years from the date the renewal Application was submitted, provided that the term shall not exceed ten (10) years.

K. Denial or Failure to Renew Application.

1. If the Department denies a renewal Application, Permittee shall promptly remove the formerly permitted Personal Wireless Service Facility from the Public Rights-of-Way unless the Applicant files an appeal of the denial with the Board of Appeals. In which case, the Department

from the Public Rights-of-Way unless the Applicant files an appeal of the denial with the Board of Appeals. In which case, the Department will stay enforcement of any removal requirement until the Board of Appeals issues a determination on the Applicant's appeal.

2. If Permittee fails to timely file a renewal Application, the Department will notify Permittee that the Permit has expired and shall require Permittee to remove the formerly permitted Personal Wireless Service Facility from the Public Rights-of-Way within thirty (30) Days from the date of the notice.

3. Notwithstanding the requirements of this Section, for good cause shown the Department may allow a Permittee that has failed to timely file a renewal Application to file one. In no event, however, shall the Department allow a Permittee to file a renewal Application after the date the Department has required Permittee to remove the permitted Personal Wireless Service Facility from the Public Rights-of-Way.

Section 23. REMOVAL OF FACILITIES

A. Removal of Permitted Equipment.

Permittee may remove any equipment installed on a Utility or Street Light Pole as part of a Personal Wireless Service Facility Site Permit provided that such removal does not render the permitted Personal Wireless Service Facility non-operational. Permittee shall notify the Department in writing that Permittee has removed permitted equipment.

B. Required Upon Expiration or Termination.

Upon the expiration or termination of a Personal Wireless Service Facility Site Permit, Permittee shall permanently remove all permitted Personal Wireless Service Facilities at Permittee's own cost and expense.

C. Failure to Remove Permitted Equipment.

If Permittee fails to timely remove the a Personal Wireless Service Facility after expiration or termination of a Personal Wireless Service Facility Site Permit the Department shall take all reasonable, necessary, and appropriate action in accordance with Applicable Law to remedy Permittee's failure to comply and may charge the reasonable costs actually incurred, including but not limited to administrative costs, to Permittee.

Section 24. REPLACEMENT OF EQUIPMENT

A. Application Required.

An Application to replace equipment installed pursuant to a Personal Wireless Service Facility Permit is required if Permittee seeks to replace equipment used at the permitted Personal Wireless Service Facility that is of substantially the same size, appearance, and power as the permitted equipment being replaced.

B. Equipment Replacement Procedure.

1. A Permittee seeking to replace equipment installed on a Utility or Street Light Pole pursuant to a Personal Wireless Service Facility Site Permit shall provide the Department with the notice and Verified Statement required under this Section prior to replacing the equipment.

2. The Department shall approve or deny the request to replace existing equipment within five (5) Business Days after receipt of the notice and Verified Statement required under this Section.

C. Information Required for Replacement Equipment.

Before replacing equipment, Permittee shall provide the Department with the following:

1. A Verified Statement that the replacement equipment is of substantially the same size, appearance, and power as the permitted equipment being replaced.

2. A Verified Statement from a registered engineer to the effect that the replacement equipment complies with the Public Health Compliance Standard.

D. Department Approval.

The Department shall approve a request to replace equipment installed on a Utility or Street Light Pole pursuant to a Personal Wireless Service Facility Site Permit if the Department finds that the information contained in the Verified Statement required under this Section is correct.

Section 25. MODIFICATION OF PERSONAL WIRELESS FACILITY SITE PERMITS

A. Application Required.

An Application to modify a Personal Wireless Service Facility Permit is required if Permittee seeks to replace equipment used at the permitted Personal Wireless Service Facility that is not of substantially the same size, appearance, and power as the permitted equipment being replaced.

B. Modification Procedure for Tier I or Tier II Facility Permits.

1. A Permittee seeking to modify a Tier I or Tier II Facility Permit shall file an Application containing all of the information set forth in Section 5 above.

2. The Department shall approve an Application to modify a Tier I or Tier II Facility Permit provided that the proposed modified Personal Wireless Service Facility meets the applicable Tier I or Tier II Criteria.

3. The Department shall not require a Permittee to provide notice of a Department final determination to approve an Application to modify a Tier I or Tier II Facility Permit.

C. Modification Procedure for Tier III Facilities.

1. A Permittee seeking to modify a Tier III Facility Permit shall file an Application containing all of the information set forth in Section 5 above.

2. The Department shall process an Application to modify a Tier III Facility Permit as it would any Application for a Tier III Facility Permit.

3. Notwithstanding the foregoing, the Department shall have the discretion to waive the requirement that Permittee issue a notice of the Department's Tentative Approval of an Application to modify a Tier III Facility Permit.

Section 26. ABANDONED PERSONAL WIRELESS SERVICE FACILITIES

A. Notice of Abandonment.

1. The Department shall notify Permittee whenever the Department has reason to believe that a Personal Wireless Service Facility has been abandoned because it has not been properly maintained or because it is no longer being used to provide Personal Wireless Service. A Personal Wireless Service Facility that has been marked with Graffiti has not been properly maintained.

2. The notice shall state that Permittee has sixty (60) Days to remove the abandoned Personal Wireless Service Facility from the Public Rights-of-Way.

B. Response to a Notice of Abandonment.

1. If Permittee disagrees with the Department's notice of abandonment, within sixty (60) Days of receipt of the notice Permittee shall notify the Department in writing that:

(a) The Personal Wireless Service Facility is in good working order; or

(b) Permittee intends to repair or replace any equipment used for a Personal Wireless Service Facility that has not been properly maintained within thirty (30) Days; or

(c) Permittee will remove any Graffiti from the Personal Wireless Service Facility within thirty (30) Days.

2. At the request of Permittee in writing, the Department may grant Permittee an extension of time to repair or replace the abandoned Personal Wireless Service Facility.

3. If the Department agrees with Permittee, the Department shall withdraw the notice.

C. Failure to Remove Abandoned Facility.

1. If Permittee fails to remove the abandoned Personal Wireless Service Facility, as required by the Department, the Department may remove the facility.

2. The Department will endeavor to remove the Personal Wireless Service Facility and to return the equipment to Permittee in the same condition as it was at the time of removal. The Department, however, does not assume any responsibility for any damage to the equipment resulting from the Department's removal and storage of any abandoned equipment.

3. The Department may deduct the cost of removing the abandoned Personal Wireless Service Facility from Permittee's deposit required under Public Works Code § 2.4.40 and Section 28 below.

Section 27. NOTICE OF DEFICIENCY

A. Contents of Notice.

A notice of deficiency issued pursuant to Public Works Code § 1517(b) shall:

1. State the basis for the Department's determination that a permitted Personal Wireless Service Facility is not in compliance with a Personal Wireless Service Facility Site Permit, Public Works Code Article 25, or this Order;

2. Give Permittee reasonable time to correct the deficiency. If the notice of deficiency concerns a violation of the Public Health Compliance Standard, the Department may require immediate compliance;

3. State the Department's remedies if Permittee fails to take corrective action, which can include revocation of the Permit; and

4. Notify Permittee whether the Department intends to suspend review of or deny other pending Applications for a Personal Wireless Service Facility Site Permits should Permittee fail to timely correct the deficiency.

B. Compliance with Notice of Deficiency.

1. Permittee shall timely comply with a notice of deficiency.

2. If Permittee should fail to timely comply with a notice of deficiency the Department:

(a) Shall take the corrective action set forth in the notice; and

(b) May suspend review of or deny Permittee's pending Applications for Personal Wireless Service Facility Site Permits.

Section 28. DEPOSIT

Permittee's deposit required under Public Works Code § 2.4.40 shall be available to the Department to secure the faithful performance of the obligations of Permittee under any Personal Wireless Service Facility Site Permit. If Permittee has not made such a deposit, Permittee shall submit and maintain with the Department one (1) bond, cash deposit, or other security acceptable to the Department securing the faithful performance of the obligations of Contractor and its agent under any Permit issued under this Order. The deposit shall be in the sum of twenty-five thousand dollars ($25,000) in favor of the "Department of Public Works, City and County of San Francisco." If the Director has deducted any amounts from such a deposit pursuant to this Order, Permittee must restore the full amount of the deposit prior to the Department's issuance of a subsequent Permit. The Department shall return the deposit to Permittee should Permittee cease to operate any Personal Wireless Service Facilities in the Public Rights-of-Way.

Section 29. ADDITIONAL FEES

A. Director May Require Additional Permit Fees.

1. Pursuant to Public Works Code § 1527(d), the Director may require an Applicant for a Personal Wireless Service Facility Site Permit to pay a sum in excess of the normal Permit fees.

2. The Department shall not approve an Application for a Personal Wireless Service Facility Site Permit unless Applicant agrees to pay these additional Permit fees when required.

B. Imposition of Additional Permit Fees.

1. Any City department reviewing an Application for a Personal Wireless Service Facility Site Permit shall determine whether its review of an Application will be unusually costly. A City department other than the Department shall provide the Department with an estimate of its additional costs along with an explanation of the reasons these additional costs must be incurred.

2. Prior to requiring additional Permit fees, the Director shall notify an Applicant that it will be unusually costly for either the Department or another City department to review an Application for a Personal Wireless Service Facility Site Permit. The notice shall include an estimate of its additional costs along with an explanation of the reasons these additional costs must be incurred, and shall offer the Applicant the opportunity to withdraw or modify the Application in order to avoid any additional Permit fees.

3. With the consent of the Applicant, the applicable City department may incur these costs and recover them as additional Permit fees.

Section 30. RECOVERY OF CITY DEPARTMENT COSTS

A. Costs of Technical Experts.

1. Pursuant to Public Works Code § 1527(f), any City department may retain the services of a technical expert in order to evaluate an Application for a Personal Wireless Service Facility Site Permit, and seek reimbursement for the cost of those services from an Applicant.

2. Prior to incurring any reimbursable costs, a City department shall notify an Applicant that it requires the services of a technical expert. The notice shall explain in detail the expert services required and offer the Applicant the opportunity to withdraw or modify the Application in order to avoid those costs.

3. If the Applicant intends to pursue the Application, the applicable City department shall then work with the Applicant to identify Persons with the necessary expertise to provide the required services and to establish a budget for the expert's services.

4. With the consent of the Applicant, the applicable City department shall retain the expert to perform the required services.

B. Publication Cost for Notice of Hearing.

1. The Department shall require an Applicant for a Personal Wireless Service Facility that is the subject of a protest to reimburse the Department for the cost of publishing notice of the hearing in the official newspaper of the City and County of San Francisco.

2. After placing the advertisement, the Department shall bill the Applicant for such costs, which bill shall be due and payable within thirty (30) Days.

3. In the event the Applicant fails to pay as required, the Department may deduct the cost of the advertisement from Permittee's deposit required under Public Works Code § 2.4.40 and Section 28 above.

Section 31. EXISTING PERSONAL WIRELESS SERVICE FACILITIES

A. Personal Wireless Service Facilities Permitted Under S.F. Administrative Code § 11.9(b).

1. As required by Ordinance No.12-11, the Department shall not renew any permit issued pursuant to S.F. Administrative Code § 11.9(b).

2. Within 60 (sixty) Days of this Order, the Department shall notify any Person issued a permit under Administrative Code § 11.9(b) that:

(a) Those permits will expire on the date that is two (2) years after Permittee notified the Department that construction of the Facility was complete; and

(b) Such Person has one hundred and eighty (180) Days from the later of the date of this Order or the date the existing permit expires to file an Application for a Personal Wireless Service Facility Site Permit under Public Works Code Article 25 and this Order.

3. The timely filing of such Application for a Personal Wireless Service Facility Site Permit under Public Works Code Article 25 shall extend the term of the permit issued under Administrative Code § 11.9(b) until the Department issues a final determination on such Application.

4. The Application shall state whether the proposed Personal Wireless Service Facility is identical to or different from the existing Personal Wireless Service Facility.

5. The Department will process such an Application as it would any Application for a Personal Wireless Service Facility Site Permit

3. The Department will process such an Application as it would any Application for a Personal Wireless Service Facility Site Permit.

B. Personal Wireless Service Facilities Installed Prior to the Effective Date of Ordinance No. 214-07.

1. Within sixty (60) Days of this Order, any Person that installed a Personal Wireless Service Facility in the Public Rights-of-Way prior to the Effective Date of Ordinance No. 214-07 shall notify the Department of the location of each of those facilities.

2. Within one hundred and twenty (120) Days of this Order, any Person that installed a Personal Wireless Service Facility in the Public Rights-of-Way prior to the Effective Date of Ordinance No. 214-07 shall file an Application for a Personal Wireless Service Facility Site Permit under Public Works Code Article 25 and this Order for each of those facilities.

3. The Application shall state whether the proposed Personal Wireless Service Facility is identical to or different from the existing Personal Wireless Service Facility.

4. The Department will process such an Application as it would any Application for a Personal Wireless Service Facility Site Permit.

C. Department Action on Applications under this Section.

1. If an Application filed as required under this Section is approved the Department shall issue a new Permit under Public Works Code Article 25 and this Order.

2. If an Application filed as required under this Section is denied the Department shall order the Person maintaining the Personal Wireless Service Facility to remove the Personal Wireless Service Facility from the Public Rights-of-Way within sixty (60) Days of the denial.

3. If a Permit issued under this Section is for a Personal Wireless Service Facility that is different from the previously permitted and/or installed facility, the Department shall allow Permittee sixty (60) Days to modify the facility to comply with the Permit.

4. All other conditions of a Personal Wireless Service Facility Site Permit shall apply to a Permit issued under this Section.

Section 32. DEPARTMENT FORMS

A. Use of Department Forms Required.

The Department, an Applicant for a Personal Wireless Service Facility Site Permit or a Permittee shall use the forms authorized by this Order and attached hereto as the following Exhibits:

1. Application
2. Notice of Completeness/Deficiency of Application
3. Notice of City Department Conditions
4. Notice of Satisfaction of Tier I or Tier II Criteria
5. Department Notice of Tentative Approval to Applicant
6. Applicant's Notice by Mail of Tentative Approval
7. Public Notice of Tentative Approval (Posting)
8. Notice of Final Determination to Deny Application
9. Notice of Final Determination to Approve Application
10. Personal Wireless Service Facility Site Permit
11. Notice of Starting Installation
12. Notice of Substantial Completion of Installation
13. Request to Replace Antenna(s)/Equipment
14. Notice of Expiration of Permit (Renewal Allowed)
15. Notice of Expiration of Permit (No Renewal Allowed)
16. Application to Renew a Personal Wireless Service Facility Site Permit
17. Notice of Completeness/Deficiency of Renewal/Modification Application
18. Notice of Final Determination to Deny Renewal/Modification
19. Notice of Final Determination to Approve Renewal/Modification
20. Notice of Suspension of Review of Application
21. Application to Modify a Personal Wireless Service Facility Site Permit

B. Changes to Authorized Forms.

The Department may change the authorized forms as necessary to facilitate the issuance of Personal Wireless Service Facility Site Permits.

C. New Forms.

The Department may prepare and issue new authorized forms as necessary to facilitate the issuance of Personal Wireless Service Facility Site Permits.

Approved:

Jerry Sanguinetti, Bureau Manager of Street-Use and Mapping

Edward Reiskin Director of Public Works

Bureau

Approved on June 28, 2011

There is a problem with this signature. Show Details Remove

There is a problem with this signature. Show Details Remove

Save & Close Close Print View

Exhibit C: DPW Order 184504

City and County of San Francisco

San Francisco Public Works
Office of the Deputy Director & City Engineer, Fuad Sweiss
Bureau of Street-Use & Mapping
1155 Market Street, 3rd Floor
San Francisco Ca 94103
(415) 554-5810 ■ www.sfdpw.org

Edwin M. Lee, Mayor
Mohammed Nuru, Director

Jerry Sanguinetti, Bureau Manager

DPW Order No: 184504

REGULATIONS IMPLEMENTING THE REQUIREMENTS OF SAN FRANCISCO PUBLIC WORKS CODE ARTICLE 25 AND REVISING AND SUPERSEDING DEPARTMENT OF PUBLIC WORKS ORDER NO. 183,440

Section 1. PURPOSES AND APPLICABILITY OF ORDER

A. Purposes.

1. Public Works adopted Department of Public Works Order No. 179,406 on June 29, 2011 for the purpose of implementing the requirements of San Francisco Public Works Code Article 25, approved by the Board of Supervisors on January 4, 2011 in Ordinance No. 12-11.

2. Public Works adopted Department of Public Works Order No. 180,222 on May 1, 2012 for the purpose of correcting, amending, and clarifying various aspects of Department of Public Works Order No. 179,406.

3. On February 3, 2015, the Board of Supervisors adopted Ordinance No. 18-15 amending Article 25. Ordinance No. 18-15 became effective on March 16, 2015.

4. Public Works adopted Department of Public Works Order No. 183,440 on March 30, 2015 for the purpose of implementing the requirements of Article 25 as amended by Ordinance No. 18-15.

5. Public Works is adopting this Order for the purpose of correcting, amending, and clarifying various aspects of Department of Public Works Order No. 183,440. This Order, therefore, supersedes and replaces Order No. 183,440 in its entirety.

Section 2. DEFINITIONS

A. Use of Defined Terms. Unless the context otherwise specifies or requires, when capitalized the terms defined in this Section shall, for all purposes of this Order, have the meanings specified herein.

B. Defined Terms. The following definitions are to be equally applied to both the singular and plural forms of any of the terms defined herein.

1. "Adjacent" means:

(a) On the same side of the street and in front of the building or the next building on either side, when used in connection with a national historic landmark, California landmark, San Francisco Landmark, structure of merit, architecturally significant building, or locally significant building;

(b) In front of and on the same side of the street, when used in connection with a City park or open space; and

(c) The Utility, Transit, or Street Light Pole on the same side of the street and in front of the address used in the Application, or the next property on either side of the address used in the Application, when used in connection with the street tree requirement contained in Public Works Code § 1506.

2. "Applicable Law" means all applicable federal, state, and City laws, ordinances, codes, rules, regulations, orders, standard plans and specifications, as the same may be amended or adopted from time to time. "Applicable Law" also means the requirements contained in a Utility Conditions Permit previously issued to an Applicant.

3. "Applicant" means a Person that has applied for a Personal Wireless Service Facility Site Permit or a Modification Permit. Where the Applicant is an agent for a Person that will be a Permittee, the term Applicant shall include Permittee.

4. "Application" means an application for a Personal Wireless Service Facility Site Permit or a Modification Permit.

5. "Base Station" means a Utility, Transit, or Street Light Pole or Transmission Equipment enabling the provision of FCC–licensed or authorized wireless communications between user equipment and a communications network that has been installed at a fixed location.

6. "Block Face" means the sidewalk between and including two (2) contiguous curb corners without any intervening street or other roadway, not including alleys.

7. "Business Day" means any Monday through Friday that is not observed as an official holiday by the City.

8. “CEQA” means the California Environmental Quality Act (California Public Resources Code § 21000, et seq.).

9. “City” means the City and County of San Francisco.

10. “Compatibility Standard” means the Planning Protected, Zoning Protected, or Park Protected Compatibility Standard applicable to the proposed location for a Personal Wireless Service Facility as fully described in Public Works Code § 1502.

11. “Complete” when referring to an Application for a Personal Wireless Service Facility Site Permit or a Modification Permit means that the Applicant has provided Public Works with: (a) all of the information required in Section 5 below; and (b) a correct address for each Utility, Transit, or Street Light Pole to be used in connection with the proposed Personal Wireless Service Facility.

12. “Conditions” means any additional requirements that a City department reviewing an Application for a Personal Wireless Service Facility Site Permit has determined are necessary for the Application to meet those requirements of Public Works Code Article 25 that are within that department’s purview, provided that no such Conditions may include a requirement that an Applicant use a particular technology for a Personal Wireless Service Facility.

13. “Day” means any calendar day. For the purposes hereof, the time in which an act is to be performed shall be computed by excluding the first Day and including the last. For the purposes hereof, if the time in which an act is to be performed falls on Day that is not a Business Day the time for performance shall be extended to the following Business Day.

14. “Director” means the Director of Public Works or his or her designee.

15. “Eligible Facilities Request” means a request to modify an Existing Base Station that involves either the: (a) collocation of new Transmission Equipment; (b) removal of Transmission Equipment; or (c) replacement of Transmission Equipment.

16. “Existing Base Station” means a Base Station that contains Transmission Equipment that has been reviewed and approved by Public Works in a Personal Wireless Service Facility Site Permit. An Existing Base Station shall not include Transmission Equipment consisting of fiber-optic or other communications lines installed on a Utility Pole where such installation was neither reviewed nor approved by Public Works in a Personal Wireless Service Facility Site Permit.

17. “Emergency” means an unforeseen combination of circumstances or the resulting state that calls for immediate action in order to prevent injury to

persons or property or to ensure the continuous provision of Personal Wireless Services.

18. “FCC” means the Federal Communications Commission.

19. "Graffiti" means any inscription, word, figure, marking or design that is affixed, marked, scratched, drawn or painted on a Personal Wireless Service Facility, whether permanent or temporary, without the consent of Permittee.

20. “Installation Period” means a time set forth in a Personal Wireless Service Facility Site Permit for Permittee to Substantially Complete Installation of the permitted Personal Wireless Service Facility. Unless a longer period is otherwise stated in the Permit, the Installation Period shall be one (1) year after the issuance of the Permit.

21. “Modification Permit” means a Permit issued by Public Works authorizing the modification of Personal Wireless Service Facility equipment installed on an Existing Base Station or a Utility, Transit, or Street Light Pole pursuant to a Personal Wireless Service Facility Site Permit.

22. “Order” means these Department of Public Works Regulations Implementing the Requirements of San Francisco Public Works Code Article 25 and Revising and Superseding Department of Public Works Order No. 180,222.

23. “Park Protected Location” means a proposed location for a Personal Wireless Service Facility in the Public Rights-of-Way that is Adjacent to a City park or open space.

24. “Permittee” means a Person issued a Personal Wireless Service Facility Site Permit by Public Works under Public Works Code Article 25 and this Order.

25. “Person” means any natural person, corporation, or partnership
.

26. “Personal Wireless Service” means commercial mobile services provided under a license issued by the FCC.

27. “Personal Wireless Service Facility” means antennas and related facilities and equipment used to provide or facilitate the provision of Personal Wireless Service.

28. “Personal Wireless Service Facility Site Permit” or “Permit” means a permit issued under Public Works Code Article 25 and this Order as it has been approved, amended, or renewed by Public Works authorizing the Permittee to install and maintain the equipment included in the Application for a Personal Wireless Service Facility on the Utility, Transit, or Street Light Pole(s) identified in the Application.

29. “Planning Protected Location” means any of the proposed locations for a Personal Wireless Service Facility described in Public Works Code § 1502.

30. “Public Health Compliance Standard” means whether:

    (a) Any potential human exposure to radio frequency emissions from a proposed Personal Wireless Service Facility described in an Application is within the FCC guidelines; and

    (b) Noise at any time of the day or night from the proposed Personal Wireless Service Facility described in an Application is not greater than forty-five (45) dBA as measured at a distance three (3) feet from any residential building facade.

31. “Public Rights-of-Way” means the area in, on, upon, above, beneath, within, along, across, under, and over the public streets, sidewalks, roads, lanes, courts, ways, alleys, spaces, and boulevards within the geographic area of the City in which the City now or hereafter holds any property interest, which is dedicated to public use.

32. “Public Works” means City and County of San Francisco Public Works.

33. “Public Works Code” means the S.F. Public Works Code.

34. “Replace” means to remove previously permitted equipment and install new equipment at a permitted Personal Wireless Service Facility that is identical in size or smaller than the previously permitted equipment.

35. “Start Installation” or “Starting Installation” means the date when Permittee first installs any of the equipment approved in a Permit.

36. “Street Light Pole” means a pole used solely for street lighting and which is located in the Public Rights-of-Way.

37. “Substantially Change the Physical Dimensions” means to: (a) increase the height of an Existing Base Station by more than ten percent (10%) or more than ten feet (10’), whichever is greater; (b) add an appurtenance to the body of an Existing Base Station that would protrude from the edge of the Existing Base Station by more than six feet (6’); (c) install on an Existing Base Station more than the standard number of new equipment cabinets for the technology involved, or more than four (4) cabinets; (d) install equipment cabinets on the ground if there are no ground cabinets associated with an Existing Base Station; (e) install new ground cabinets that are more than ten percent (10%) larger in height or volume than any ground cabinets associated with an Existing Base Station; (f) excavate or deploy Transmission Equipment outside of the location of an Existing

Base Station; or (g) defeat any elements that conceal the Transmission Equipment installed on an Existing Base Station.

38. "Substantially Complete Installation" or "Substantial Completion of Installation" means the earlier of the date when either: (a) Permittee has installed all of the Permittee's equipment approved in a Permit; or (b) a permitted Personal Wireless Service Facility is being used to provide or facilitate the provision of Personal Wireless Service.

39. "Substantially Obstruct Views from or Block Light into Residential Windows" means the placement of any part of a proposed Personal Wireless Service Facility in a manner that would substantially obstruct the views from or block the light into a set of windows serving a living space in a private residence. The mounting of low-profile equipment enclosures (fourteen inches (14") wide or less and eight inches (8") deep or less) flush with the Utility, Transit or Street Light Pole would not typically be expected to result in substantial impairment unless the Utility, Transit or Street Light Pole is less than six feet (6') from a residential window. The mounting of equipment enclosures either eight feet (8') away from a window (if attached to the top of the pole), or six feet (6) away from a window (if attached to a side arm mount), as measured from the nearest portion of the equipment enclosure, would not typically be expected to result in substantial impairment; provided that the diameter of the equipment is not more than twenty inches (20'').

40. "Tentative Approval" means the tentative approval of an Application for a Personal Wireless Facility Site Permit by Public Works prior to the issuance of public notice of that approval.

41. "Tier A Compatibility Standard" means that an Applicant for a Personal Wireless Service Facility on a Public Right-of-Way has demonstrated that the proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the neighborhood.

42. "Tier A Personal Wireless Service Facility" means a Personal Wireless Service Facility where the proposed location for the facility is in an Unprotected Location.

43. "Tier B Compatibility Standard" means that an Applicant for a Personal Wireless Service Facility on a Public Right-of-Way that is either within or Adjacent to a Planning Protected Location or Zoning Protected Location has demonstrated that the proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of the Planning Protected Location or Zoning Protected Location.

44. "Tier B Personal Wireless Service Facility" means a Personal Wireless Service Facility where the proposed location for the facility is in a Planning Protected Location or Zoning Protected Location.

45. “Tier C Compatibility Standard” means that an Applicant for a Personal Wireless Service Facility on a Public Right-of-Way that is either within or Adjacent to a Park Protected Location has demonstrated that the proposed Personal Wireless Service Facility would not significantly detract from any of the defining characteristics of Park Protected Location.

46. “Tier C Personal Wireless Service Facility” means a Personal Wireless Service Facility where the proposed location for the facility is in a Park Protected Location.

47. “Transit Pole” means a pole used solely to support Municipal Transportation Agency transit overhead traction power cables and which is located in the Public Rights-of-Way.

48. “Transmission Equipment” means equipment that facilitates transmission of FCC-licensed or authorized wireless communication service, including, but not limited to, radio transceivers, antennas and other relevant equipment associated with and necessary to their operation, including coaxial or fiber-optic cable, and regular and backup power supply.

49. “UCP” means a Utility Conditions Permit issued by Public Works under S.F. Administrative Code § 11.9(a).

50. “Unprotected Location” means a proposed location for a Personal Wireless Service Facility in the Public Rights-of-Way that is not a Planning Protected Location, a Zoning Protected Location, or a Park Protected Location.

51. “Utility Pole” means a power pole or telephone pole or other similar pole located within the Public Rights-of-Way.

52. “Verified Statement” means a statement that is signed by a Person with knowledge of the contents thereof.

53. “Zoning Protected Location” means a proposed location for a Personal Wireless Service Facility in the Public Rights-of-Way that is within a Residential or Neighborhood Commercial zoning district under the San Francisco Planning Code.

Section 3. GENERAL REQUIREMENTS FOR PERSONAL WIRELESS SERVICE FACILITY SITE PERMITS

A. Permit Required.

1. A Personal Wireless Service Facility Site Permit is required for each and every Personal Wireless Service Facility to be installed in the Public Rights-of-Way.

2. A Personal Wireless Service Facility Site Permit shall be in a form approved by Public Works and shall contain such information as Public Works deems appropriate.

3. A Personal Wireless Service Facility Site Permit shall contain such Conditions that are required by any City department that reviewed the Application and that are accepted by the Permittee.

4. Public Works may include in a Personal Wireless Service Facility Site Permit Conditions that are new or different from those contained in the Tentative Approval, provided Public Works has determined that those new or different Conditions are necessary to ensure that the permitted Personal Wireless Service Facility will be in compliance with the terms and conditions of Article 25 and this Order.

B. Application Processing.

1. Public Works will process each Application for a Personal Wireless Service Facility Permit separately.

2. In accordance with S.F. Campaign and Governmental Conduct Code § 3.400, Public Works shall process all Applications for Personal Wireless Service Facility Site Permits in the order in which they are received.

3. There is no limit to the number of Applications for Personal Wireless Service Facility Site Permits that an Applicant may file at any given time. Public Works, however, is not required to begin processing more than ten (10) Applications filed by any single Applicant in any period of five (5) consecutive Business Days. Public Works may include in this limit Applications that have been returned to Public Works following notice that the Application was not Complete.

C. Completion of CEQA Review Required.

Public Works shall not issue a Personal Wireless Service Facility Site Permit until the Planning Department has completed its review of the Application under CEQA.

Section 4. COMMUNITY MEETINGS

Public Works encourages Applicants for Personal Wireless Service Facility Site Permits to meet with local residents, business owners, and neighborhood groups registered with the Planning Department in affected neighborhoods in advance of filing Applications.

Section 5. APPLICATION REQUIREMENTS

An Application for a Personal Wireless Service Facility Site Permit shall not be Complete unless it contains all of the following information.

A. Application Form.

Each Applicant for a Personal Wireless Service Facility Site Permit shall submit a completed Application form.

B. Identification of Equipment.

1. An Application shall identify all equipment the Applicant intends to install on a Utility, Transit, or Street Light Pole.

2. The Application shall not include fiber-optic or coaxial cables attached to Utility, Transit, or Street Light Poles other than on the pole the Applicant intends to use for its antenna and equipment cabinets.

C. Proof of Permission.

An Application shall contain proof that the Applicant has obtained permission from the Utility, Transit, or Street Light Pole owner(s) to install the proposed Personal Wireless Service Facility on any existing Utility, Transit, or Street Light Pole, or to replace an existing Utility, Transit, or Street Light Pole to accommodate the proposed Personal Wireless Service Facility. Proof that the Applicant is a member in good standing of the Northern California Joint Pole Association will be sufficient for joint Utility Poles.

D. Proof of Authority to Use the Public Rights-of-Way

An Application shall contain proof the Applicant has a valid and existing Utility Conditions Permit.

E. Proof of CEQA Compliance.

An Application shall contain proof that the Planning Department has completed its review of the Application under CEQA.

F. Proof of Compliance with the Public Health Compliance Standard.

An Application shall contain proof of compliance with the Public Health Compliance Standard as follows:

1. A Verified Statement from a registered engineer to the effect that the Applicant complies with the Public Health Compliance Standard.

2. An Applicant may choose to file only one (1) Verified Statement of compliance with the Public Health Compliance Standard for every type of equipment that the Applicant intends to use with two (2) or more Applications for Personal Wireless Service Facility Site Permits. After Public Works has approved one (1) Application for a Personal Wireless Service Facility Site Permit using a particular type of equipment, when

filing any subsequent Applications using the identical equipment the Applicant may file a copy of both the previously filed Verified Statement and the Department of Public Health's approval of that Verified Statement.

3. Notwithstanding the foregoing, if the Department of Public Health has ever imposed any Conditions on the Applicant's use of a particular type of equipment the Applicant shall include such information in the Application.

G. Location Drawing.

An Application shall contain a location drawing of the proposed Personal Wireless Service Facility in a twenty feet (20') to one inch (1") scale (20:1 scale) showing each of the following:

1. Street name;

2. Names of cross streets;

3. Utility, Transit, or Street Light Pole to be used;

4. All existing facilities on the Utility, Transit, or Street Light Pole; and

5. All proposed facilities on the Utility, Transit, or Street Light Pole;

6. All proposed signage to be placed on the equipment or on the Utility, Transit, or Street Light Pole.

H. Photographic Simulations and Photographs.

1. A photographic simulation of the proposed Personal Wireless Service Facility at the proposed location showing views from across and down the street; and

2. A photograph or site drawing in a twenty feet (20') to one inch (1") scale (20:1 scale) showing the location of any existing Personal Wireless Service Facilities in the Public Rights-of-Way that are within a one hundred and fifty foot (150') radius of the proposed Personal Wireless Service Facility.

I. Proof of Compliance with Insurance Requirements.

An Application shall contain a certificate of insurance in a form acceptable to the City's Risk Manager showing that the Applicant complies with the requirements of Public Works Code § 1526.

J. Application Fees.

An Application shall include checks for any fees that are payable to each City department that must review the Application. If a City department is entitled to

additional fees under Public Work Code § 1527(d), the department shall notify the Applicant at a later date.

K. Certificate of Appropriateness.

An Application shall contain a Certificate of Appropriateness from the Planning Department if the proposed location for the Personal Wireless Service Facility is within a historic district designated by the Board of Supervisors under Article 10 of the Planning Code.

L. Proper Use of Utility, Transit, or Street Light Pole.

An Application shall contain a Verified Statement from a registered engineer stating that the installation of the proposed Personal Wireless Service Facility: (1) would not compromise the structural integrity of the Utility, Transit, or Street Light Pole and will be in compliance with any standards imposed by the Northern California Joint Pole Association in its Operations/Routine Handbook, or the pole owner if other than the Northern California Joint Pole Association; and (2) would comply with the California Public Utilities Commission General Order 95 and/or the National Electric Safety Code.

M. Existing Personal Wireless Service Facilities.

A list of all permitted and installed Personal Wireless Service Facilities.

Section 6. APPLICATIONS FOR PERSONAL WIRELESS SERVICE FACILITY SITE PERMITS

A. Completeness Review.

1. Public Works shall first determine whether an Application for a Personal Wireless Service Facility is Complete.

2. Public Works shall endeavor to notify the Applicant within three (3) Business Days of its receipt of an Application whether the Application is Complete, but shall have up to thirty (30) Days to issue the notice.

3. If the Application is Complete, Public Works shall process the Application as set forth in this Section.

4. If the Application is not Compete, Public Works shall return the Application along with the statement of what additional information Public Works requires to make the Application Complete. Public Works will not process an Application until the Applicant has returned the Application to Public Works with all of the required information.

5. Public Works may issue additional notices that an Application is not Complete if any resubmitted Application does not contain all of the information requested by Public Works. Any additional notices shall be

issued within ten (10) Days of receipt of the information required from the Applicant in the prior notice.

B. Tolling.

1. The timely issuance by Public Works of a notice that the Application is not Complete shall toll any deadline for issuing a final determination that is required by federal or State law.

2. The time period shall restart on the date that the Applicant has provided Public Works with all of the information required for a Complete Application.

3. This same rule shall apply to an additional notices that an Application is not Complete issued by Public Works after an Application has been resubmitted.

C. Suspension or Denial of Application for Lack of Compliance.

Public Works may suspend review of or deny a Complete Application for a Personal Wireless Facility Site Permit if Public Works has issued to the Applicant a notice of deficiency related to any existing Personal Wireless Service Facility Site Permit, and the Applicant has not corrected the deficiency within a reasonable time as required by Public Works under Section 26 below.

D. Department Conditions.

Within (5) Business Days of Public Works' determination that an Application for a Personal Wireless Service Facility Site Permit is Complete, Public Works shall notify the Applicant whether it will add any Public Works Conditions to the Tentative Approval.

E. Referral to Other City Departments.

Immediately following Public Works' determination that the Application is Complete, Public Works shall:

1. Refer the Application to the Department of Public Health for review under the Department of Public Health Compliance Standard.

2. Refer the Application to the Planning and/or Recreation and Park Department for review under the appropriate Compliance Standard.

F. Tentative Approvals.

Public Works shall issue a Tentative Approval of an Application for a Personal Wireless Service Facility Site Permit within five (5) Business Days of the occurrence of the last of the following events:

1. Public Works' receipt of a determination from the Department of Public Health that the Application complies with the Public Health Compliance Standard;

2. Public Works' receipt of a determination from the Planning and/or the Recreation and Park Department that the Application satisfies the applicable Compatibility Standard; or

3. If any City department adds any Conditions to its approval of the Application, Public Works' receipt of a notice from the Applicant that it accepts all of those Conditions.

G. Final Determinations.

1. Public Works shall issue a final determination denying an Application for a Personal Wireless Service Facility Site Permit that is subject to a protest within three (3) Business Days after the Director issues a decision upholding the protest and denying the Application.

2. Public Works shall issue a final determination approving an Application for a Personal Wireless Service Facility Site Permit with as follows:

   (a) If no protest is timely submitted, Public Works shall issue a final determination approving the Application within five (5) Business Days after the time to file a protest has expired; or

   (b) If a protest is timely submitted, Public Works shall issue a final determination approving the Application within three (3) Business Days after the Director issues a decision denying the protest and approving the Application.

H. Notice that Application Should be Deemed Approved.

1. If an Applicant for a Personal Wireless Service Facility Site Permit determines that Public Works has not issued a final determination within one hundred and fifty (150) Days after the Application was submitted (subject to applicable tolling), as required by Government Code § 65964.1, the Applicant shall notify Public Works in writing that the Applicant has determined that the Application should be "deemed approved" as required by State law. In the notice, the Applicant shall demonstrate that it has completed all of the tasks required of the Applicant up through to the day of the notice.

2. Within five (5) Business Days of receipt of the notice, Public Works will notify the Applicant whether or not Public Works agrees that the Application should be deemed approved.

3. An Applicant's failure to notify Public Works as set forth above shall mean that its Application will not be "deemed approved" regardless of whether Public Works has issued a final determination within one hundred and fifty (150) Days after the Application was submitted (subject to applicable tolling) as required by Government Code § 65964.1.

4. Notwithstanding the foregoing, the Permittee and Department may agree in writing to extend the deadline for issuing a final determination approving or denying an Application for a Personal Wireless Service Facility Site Permit.

Section 7. PLANNING DEPARTMENT REVIEW

A. Referral Required.

Prior to approving an Application for a Tier A or B Personal Wireless Service Facility Site Permit, Public Works shall refer the Application to the Planning Department for review under the applicable Compatibility Standard.

B. Review and Approval Required.

1. The Planning Department shall review the Application in the time set forth in Public Works Code § 1509(b).

2. Public Works shall not approve an Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit unless the Planning Department determines that the Application satisfies the applicable Compatibility Standard.

C. Conditions.

1. The Planning Department's determination that an Application for a Tier A or B Personal Wireless Service Facility Site Permit satisfies the applicable Compatibility Standard may include such Conditions as the Planning Department deems appropriate to insure that the Application satisfies the applicable Compatibility Standard.

2. The Planning Department's determination that an Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit satisfies the applicable Compatibility Standard may include a Condition that Permittee plant and maintain an appropriate street tree Adjacent to the Utility, Transit, or Street Light Pole so as to provide a screen for the permitted Personal Wireless Service Facility.

D. View Streets.

As required by the San Francisco General Plan, when making a determination whether a proposed Personal Wireless Service Facility would significantly impair the views of any important buildings, landmarks, open spaces, natural vistas, or parks, the

Planning Department shall only consider views of buildings, open spaces, natural vistas, or parks from the Public Rights-of-Way. The Planning Department shall not take into account views from private properties.

Section 8. RECREATION AND PARK DEPARTMENT REVIEW

A. Referral Required.

Prior to approving an Application for a Tier C Personal Wireless Service Facility Site Permit, Public Works shall refer the Application to the Recreation and Park Department for review under the Park Protected Location Compatibility Standard.

B. Review and Approval Required.

1. The Recreation and Park Department shall review the Application in the time set forth in Public Works Code § 1510(b).

2. Public Works shall not approve an Application for a Tier C Personal Wireless Service Facility Site Permit unless the Recreation and Park Department determines that the Application satisfies the Park Protected Location Compatibility Standard.

C. Conditions.

1. The Recreation and Park Department's determination that an Application for a Tier C Personal Wireless Service Facility Site Permit satisfies the Park Protected Location Compatibility Standard may include such Conditions as the Recreation and Park Department deems appropriate to insure that the Application satisfies the Park Protected Location Compatibility Standard.

2. The Recreation and Park Department's determination that an Application for a Tier C Personal Wireless Service Facility Site Permit satisfies the Park Protected Location Compatibility Standard may include a Condition that Permittee plant and maintain an appropriate street tree Adjacent to the Utility, Transit, or Street Light Pole so as to provide a screen for the permitted Personal Wireless Service Facility.

Section 9. DEPARTMENT OF PUBLIC HEALTH REVIEW

A. Referral Required.

Prior to approving an Application for a Personal Wireless Service Facility Site Permit, Public Works shall refer the Applicant's Verified Statement concerning compliance with the Public Health Compliance Standard to the Department of Public Health for review under the Public Health Compliance Standard.

B. Review and Approval Required.

1. Public Works of Public Health shall review the Application in the time set forth in Public Works Code § 1507(b).

2. Public Works shall not approve an Application for a Personal Wireless Service Facility unless the Department of Public Health determines that the Application complies with the Public Health Compliance Standard.

C. Conditions.

The Department of Public Health's determination that an Application for a Personal Wireless Service Facility Site Permit complies with the Public Health Compliance Standard may include such Conditions as the Department of Public Health deems appropriate to insure such compliance.

Section 10. PROCEDURE FOR IMPOSING CONDITIONS OF APPROVAL

A. Time for Notice of City Department Conditions.

If any City department imposes any Conditions on its approval or Tentative Approval of an Application for a Personal Wireless Service Facility Site Permit, Public Works shall notify the Applicant in writing of the Conditions within two (2) Business Days of receipt of the determination from the applicable City department.

B. Contents of Notice of City Department Conditions

Public Works' notice of City department Conditions shall:

1. State in detail all of the Conditions required for Public Works to approve the Application for a Personal Wireless Service Facility Site Permit;

2. Identify the City department that imposed the Conditions; and

3. State that the Applicant has five (5) Business Days to notify Public Works whether it accepts the Conditions.

C. Initial Acceptance or Rejection of Conditions.

1. If the Applicant fails to timely accept, object, or propose modifications to any City department Conditions, Public Works shall treat the Conditions as rejected and deny the Application.

2. At the request of the Applicant in writing, Public Works may extend the time for the Applicant to determine whether to accept or reject the Conditions.

D. Objections to Conditions.

1. Within five (5) Business Days of receipt of notice that a City department has imposed any Conditions in its approval of an Application for a Personal Wireless Service Facility Site Permit the Applicant may send the

applicable City department written objections to the Conditions and request that the department modify one or more of those Conditions.

2. In addition to or instead of submitting objections to any City department Conditions, the Applicant may propose certain modifications to its Application for a Personal Wireless Service Facility Site Permit as an alternate means of satisfying the department's Conditions.

3. At the request of the Applicant in writing, Public Works may extend the time for the Applicant to determine whether to object to any Conditions and/or propose modifications to its Application.

4. Within five (5) Business Days of receipt of the Applicant's objections and/or request for modification to its Application, the applicable City department will notify the Applicant whether the department will modify any of the Conditions based on the objections and proposed modifications.

5. Within five (5) Business Days of receipt of the notice from a City department, the Applicant shall notify the applicable City department and Public Works whether it: (a) accepts the original Conditions if the department rejects the Applicant's objections; (b) accepts the Conditions as modified by any City department based on the Applicant's objections and proposed modifications. In no event may the Applicant make any further objections to the Conditions or request any new or different modifications to the Application.

6. If any proposed City department Conditions or modifications to the Application are stated in the alternative, the Applicant's acceptance of those Conditions or modifications to the Application must specifically identify which of those Conditions or modifications to the Application the Applicant accepts. If any proposed City department Conditions or modifications to the Application requires further information from the Applicant, the Applicant must provide the City department with any information or documentation that is necessary to determine whether the Applicant's acceptance complies with the Conditions or modification to the Application.

7. The applicable City department will notify the Applicant within two (2) Business Days whether the Applicant's acceptance complies with the Conditions.

8. If the acceptance is in compliance, Public Works will issue a Tentative Approval of the Application.

9. If the acceptance is not in compliance, Public Works will deny the Application.

Section 11. NOTICE OF TENTATIVE APPROVAL OF A PERSONAL WIRELESS SERVICE FACILITY SITE PERMIT

A. Public Works' Notice to Applicant.

Public Works shall notify the Applicant of a Tentative Approval of an Application for a Personal Wireless Service Facility Site Permit as follows:

1. Within three (3) Business Days of the receipt of the required determinations from all City departments that must review the Application if no City department has included any Conditions of approval.

2. Within three (3) Business Days of the receipt of notice that the Applicant has accepted any and all Condition imposed by any City department.

B. Applicant's Notice to the Public.

1. The Applicant shall notify the public of a Tentative Approval of an Application for a Personal Wireless Service Facility Site Permit by mailing and posting the notice required by Public Works Code § 1512(b) within five (5) Business Days of receipt of the Tentative Approval from Public Works. The Applicant shall include Public Works on the mailing list to enable Public Works to verify the mailing date. The Applicant shall use an envelope containing the corporate name used in the Application and shall include on the front of the envelope the following language: "Notice of Tentative Approval of Personal Wireless Services Facility Site Permit" and "Dated Material – Please Open Immediately."

2. The Applicant shall use best efforts to ensure that the dates on the posted and mailed notices are the same dates in which the notices are actually posted and mailed. The Department may find that the Applicant failed to provide proper notice if the dates on the posted and mailed notices are more than three (3) Days before the dates that the Applicant actually posted or mailed the notices.

3. If the Application shows that the Applicant intends to use more than one (1) Utility, Transit, or Street Light Pole for its proposed Personal Wireless Service Facility, the mailing and posting requirements shall be based on the location of each pole identified in the Application as a proposed site for Applicant's equipment.

4. The Applicant shall promptly notify Public Works of its compliance with the requirements of Public Works Code § 1512(b). The Applicant shall provide Public Works with a copy of the notices mailed and posted along with the following information:

   (a) A list of all Persons to whom the Applicant sent the notice, and a statement that the list complies with Public Works Code § 1512(b)(1);

(b) A list of all locations where the Applicant posted the notice, and a statement that the locations comply with Public Works Code § 1512(b)(2); and

(c) The date the notices were mailed and posted.

5. Notwithstanding the foregoing, at the request of the Applicant in writing Public Works may grant the Applicant additional time to comply with the notice requirements of Public Works Code § 1512.

C. Contents of Notice.

1. The Applicant's notice shall contain all of the information specified in Public Works Code § 1512(c).

2. The Applicant's notice shall state that the deadline for filing a protest will start to run on the later of the date of the notice or the date of the postmark (if different).

3. The Applicant's notice shall also state that any Person requesting that the Planning Department impose a Condition to mitigate any obstructions of views from or blocking of light into any adjacent residential window shall include with such protest photographs or other documentation depicting the potential obstruction of views or blocking of light so that the Planning Department can review the claim and make a determination whether appropriate Conditions should be added to its approval the Personal Wireless Service Facility Site Permit.

D. Language Requirement.

1. The Applicant shall translate those portions of the notice of Tentative Approval required by Public Works into such language(s) that are relevant in the immediate vicinity of Applicant's proposed Personal Wireless Service Facility.

2. A language is relevant if at least twenty (20) percent of the residents in the immediate vicinity of Applicant's Personal Wireless Service Facility speak that language at home. The Applicant can make this determination by reviewing the San Francisco Planning Department's Neighborhoods Socio-Economic Profiles, which can be found at http://www.sf-planning.org/modules/showdocument.aspx?documentid=8779

3. If the Applicant is unable to make a determination what languages are relevant, the Applicant shall consult with Public Works before issuing the notice of Tentative Approval. The Applicant shall translate the notice into any of the languages required by Public Works.

E. Failure to Issue Proper Notice.

Public Works shall not complete processing of an Application for a Personal Wireless Service Facility Site Permit until Public Works determines that the Applicant fully complied with the requirements of Public Works Code § 1512.

Section 12. PROCEDURE FOLLOWING A PROTEST

A. Notice of Protest.

1. Public Works shall promptly give notice of any protest to the Applicant and any City department that reviewed the Application.

2. The notice shall include a copy of the protest.

B. Responses to Protest.

1. The Applicant shall submit a written response to the protest within seven (7) Business Days of receiving the protest from Public Works. The Applicant shall serve a copy of its response on the protester and any City department that reviewed the Application.

2. Public Works may submit a written response to the protest within seven (7) Business Days of sending the protest to the Applicant. Public Works shall serve a copy of its response on the protester, the Applicant, and any other City department that reviewed the Application.

3. Any other City department that reviewed the Application may submit a response to the protest within seven (7) Business Days of receiving the protest from Public Works. Such City department shall serve a copy of its response on the protester, the Applicant, and any other City department that reviewed the Application.

4. Public Works may agree in writing to extend the Applicant's time for filing a response. The Applicant shall promptly notify the protester and any other City department of the extension in writing. The Applicant's extension will have the effect of extending the time for City departments to file their responses.

5. If the Applicant fails to serve a copy of its response as required, a protester may request a continuance of the hearing, which shall be granted by the hearing officer upon a showing that the protester was prejudiced by the Applicant's failure.

C. Manner of Service.

Service of any notice or response required under this Section shall be by e-mail, unless a protester has not provided Public Works with an e-mail address, in which case service to the protester shall be by U.S. Mail.

D. Notice of Hearing Date.

In addition to the written notice required by Public Works Code § 1512(c), Public Works shall notify the general public of the hearing by:

1. Placing a notice in the official newspaper of the City and County of San Francisco;

2. Posting a notice on Public Works' website; and

3. Sending the notice to any Person requesting notice of any Tentative Approval of a Personal Wireless Service Facility Site Permit.

E. Conduct of Hearing.

This Section sets forth minimum requirements for the conduct of a hearing following a protest of a Tentative Approval. Based on the circumstances of the particular protest hearing, the hearing officer may establish additional rules, not inconsistent with Public Works Code Article 25 and this Order, for the conduct of the hearing.

1. Unless the hearing officer orders otherwise, the evidentiary portion of the hearing shall be conducted in the following manner:

   (a) The hearing officer shall make part of the record all the documentation set forth in Public Works Code § 1513(e).

   (b) The hearing officer shall make part of the record any documents submitted to Public Works prior to the hearing.

   (c) The hearing officer will take testimony. Any Person attending the hearing may testify and introduce documents into the record. The hearing officer shall determine in advance of the hearing how much time shall be allotted to each Person seeking to testify. The hearing officer may allot more time for the protester and the Applicant than for other Persons participating in the hearing; provided, however, that each protester will be given at least 5 (five) minutes to present his or her case. If there is more than one protester, the Applicant shall be allotted at least as much time as that allotted to all of the protestors.

   (d) The hearing officer shall hear testimony in the following order: (i) Public Works; (ii) any other City department; (iii) any protester; (iv) any Person supporting the protest; (v) the Applicant; (vi) any Person supporting the Application. The hearing officer shall also allow for a rebuttal from each protester.

   (e) Only the hearing officer may ask questions of a witness. Any Person attending the hearing may propose questions for the hearing officer to ask of a witness. The hearing officer may allot additional time to a witness when the hearing officer poses questions.

2. The hearing officer is not bound by formal rules of evidence. All relevant evidence may be admitted if it is the sort of evidence upon which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule that would render the admission of such evidence improper in a civil action.

3. With the agreement of the parties, the hearing officer may continue the hearing in order to receive additional evidence.

F. Hearing Officer's Report.

The hearing officer shall issue a written report and recommendation within ten (10) Business Days of the close of evidence. The report shall include a summary of the evidence and a recommendation to the Director to either uphold or deny the protest of an Application.

G. Director's Decision.

The Director shall issue a written decision adopting, modifying, or rejecting the hearing officer's report and recommendation within seven (7) Business Days of receipt of the hearing officer's report.

Section 13. POST PROTEST MODIFICATION OF APPLICATION

A. Modification Encouraged to Resolve Protest.

Public Works encourages an Applicant for a Personal Wireless Service Facility Site Permit that is the subject of a protest to meet with protester at any time after a protest is filed to determine whether the Application can be modified so as to obviate the need for the protest.

B. Hearing May Be Postponed or Suspended.

1. To facilitate cooperation between the Applicant and any protestors, the Applicant may request one or more of the following, in writing:

   (a) That Public Works postpone the deadline for filing a response to a protest;

   (b) That Public Works postpone issuing a notice of hearing date;

   (c) That Public Works postpone the hearing date; and/or

   (d) That the hearing officer suspend the hearing.

2. Public Works shall notify any protester that the hearing has been postponed or suspended as a result of a request by the Applicant.

C. Limited Modification.

Any modification allowed under this Section must concern the Personal Wireless Service Facility to be installed on the Utility, Transit, or Street Light Pole identified in the Application. Moving the proposed Personal Wireless Service Facility to another Utility, Transit, or Street Light Pole is not the type of modification that can be allowed following a protest.

D. Procedure Following Agreement.

If the Applicant and every protester agree to modify the Application, the following shall occur:

1. The hearing officer shall discontinue the hearing.

2. The Applicant shall submit a revised Application that contains the agreed upon modifications. The Applicant will provide the protesters with a copy of the revised Application.

3. The protesters shall withdraw the protest, provided the Permit contains the agreed upon modifications and the Application is otherwise the same as the original Application.

4. Public Works shall issue a final determination approving the Application as modified within five (5) Business Days of receipt of the revised Application, provided that Public Works determines that the revised Application contains the agreed upon modifications and is otherwise the same as the original Application.

Section 14. NOTICE OF FINAL DETERMINATION

A. Public Works' Notice.

1. Public Works shall notify the Applicant of a final determination to deny an Application for a Personal Wireless Service Facility Site Permit.

2. Public Works shall provide notice of a final determination to approve an Application for a Personal Wireless Service Facility Site Permit as follows:

   (a) To the Applicant and to any person or group identified in the neighborhood mailing list maintained by the Planning Department for any neighborhood that is within three hundred (300) feet of the permitted Personal Wireless Service Facility.

   (b) If a hearing was held following a protest of an Application for a Personal Wireless Service Facility Site Permit, to any Person who either filed a protest, submitted evidence, or appeared at the hearing, and whose name and address is known to Public Works.

(c) To any Person requesting notice of a final determination to approve an Application for a Personal Wireless Service Facility Site Permit.

3. Public Works shall send the notices of final determination required by this Section within five (5) Business Days of making the final determination.

4. Service of any notice required under this Section shall be by e-mail, unless an e-mail address is not available for any Person entitled to notice, in which case the notice to that Person shall be by U.S. Mail.

B. Applicant's Notice to the Public.

1. Immediately upon receipt of a notice of final determination from Public Works approving an Application for a Personal Wireless Service Facility Site Permit the Applicant shall post the notice in conspicuous places throughout the Block Face where the permitted Personal Wireless Service Facility is to be located.

2. After posting the notice, the Applicant shall provide Public Works with a list of all locations where the Applicant posted the notice and the date when posted.

C. Form of Notice of Final Determination.

1. A notice of final determination approving an Application for a Personal Wireless Service Facility Site Permit shall contain the information required in Public Works Code § 1514(a)(2).

2. The notice shall be translated into the same language(s) as was the notice of Tentative Approval as required by Section 9.D

Section 15. INSTALLATION OF STREET TREES

A. Installation Procedure.

1. Public Works shall notify the Bureau of Urban Forestry of the proposed location for the Personal Wireless Service Facility immediately upon receipt of a determination from the Planning and/or Recreation and Park Department that said City department has imposed a Condition on a Personal Wireless Service Facility Site Permit, pursuant to Public Works Code § 1506, that the Applicant install a street tree.

2. Within ten (10) Days after receipt of such notice, the Bureau of Urban Forestry ("Bureau") shall work with Permittee and the adjacent property owners to determine whether the proposed location for the Personal Wireless Service Facility is appropriate for a street tree. The Bureau will base its determination on the standards set forth in Department Order No. 178,631, Regulating the Planting, Maintenance, or Removal of Trees and

Landscape Material on Public Sidewalk Areas. If so, the Bureau will select the appropriate species and locations for such street trees and landscaping for each of the Preferred Locations.

3. If the Bureau of Urban Forestry, Permittee, and the adjacent property owners determine that the proposed location for the Personal Wireless Service Facility is appropriate for a street tree, Public Works shall include the required tree and location in Personal Wireless Service Facility Site Permit.

4. At the time the location is selected, the Bureau and Permittee shall ensure that the fronting property owners sign a Tree Planting Application, which shall require the fronting property owner to assume responsibility for maintenance of the tree after the Permit has expired.

5. Permittee shall complete the installation of any street tree required in a Personal Wireless Service Facility Site Permit within six (6) months of the Applicant's issuance of a notice of Substantial Completion of Installation.

6. Permittee shall notify the Bureau of Urban Forestry at least seventy-two (72) hours prior to installation of the required street tree and when Permittee has completed the installation of any required street tree.

B. "In-Lieu" Payment into Adopt-A-Tree Fund.

1. If the Bureau of Urban Forestry, Permittee, and adjacent property owner determine that a street tree is inappropriate at the proposed location for the Applicant's Personal Wireless Service Facility, Public Works shall instead require the Applicant to make an "in-lieu" payment into the "Adopt-A-Tree" fund.

2. As specified in Public Works Code §§ 802(h) and 807(f), the amount of the "in-lieu" fee shall be $1,641 per tree, or such adjusted amount authorized under those sections. The "in-lieu" fee shall be payable prior to the issuance of the Personal Wireless Service Facility Site Permit.

C. Care and Maintenance of Street Trees.

1. Permittee shall be responsible for the care and maintenance of any street tree required to be installed by Permittee in the Public Rights-of-Way under Public Works Code § 1506 during the term of the Personal Wireless Service Facility Site Permit. In this regard, Permittee shall assume the duty of a "property owner" as set forth in Public Works Code § 805.

2. For a fee to be determined by Public Works, Permittee may elect to have Public Works be responsible for the care and maintenance of any street tree required to be installed in the Public Rights-of-Way under Public Works Code § 1506. The terms and conditions of Public Works' duties

and responsibilities shall be contained in a separate agreement between Permittee and Public Works.

3. Upon the expiration of a Personal Wireless Service Facility Site Permit, the fronting property owner shall assume responsibility for maintenance of any street tree installed by a Permittee in the Public Rights-of-Way pursuant Public Works Code § 1506.

D. Bureau of Urban Forestry Fee.

1. In order to process an Application for a Personal Wireless Service Facility Site Permit in those instances where the Planning or Recreation and Park Department has required the installation of a street tree under Public Works Code § 1506, the Bureau of Urban Forestry must make a number of visits to the proposed location of the Personal Wireless Service Facility to determine: (a) whether the site is appropriate for a street tree; and, (b) if so, to further determine the appropriate species and location for the street tree.

2. Pursuant to Public Works Code § 1527(d), the Director of Public Works has determined it is unusually costly for Public Works to process such Application.

3. For every Application that requires a street tree, the Director of Public Works hereby imposes a processing fee of $345.

4. Such fee shall be due and payable to the Bureau of Urban Forestry within 10 (ten) days of Public Works notifying the Applicant that the Planning or Recreation and Park Department has required a street tree.

Section 16. INSTALLATION

A. Installation Period and Extension.

1. Permittee must Start Installation of a Personal Wireless Service Facility authorized by a Personal Wireless Service Facility Site Permit within the Installation Period unless Public Works, on the written request of Permittee, extends the Installation Period.

2. Public Works shall grant a request to extend the Installation Period if Permittee shows that additional time is needed for reasons directly related to construction requirements. Public Works may deny a request to extend the Installation Period if the request is made for any other reason. Public Works shall inform Permittee of its decision to grant or deny a request for an extension within five (5) Business Days of the request.

3. Any extension of the Installation Period granted by Public Works may be subject to additional special conditions, including, but not limited to,

conditions that ensure the timely Start and Substantial Completion of Installation during the extended Installation Period.

4. In no event will Public Works extend the Installation Period for more than one (1) year.

B. Starting Installation.

Permittee shall provide Public Works with a notice of Starting Installation within five (5) Business Days of Starting Installation of a Personal Wireless Service Facility.

C. Substantial Completion of Installation.

1. Permittee shall Substantially Complete Installation of a Personal Wireless Service Facility within sixty (60) Days of Starting Installation.

2. Permittee shall file with Public Works a notice of Substantial Completion of Installation within five (5) Business Days of Substantial Completion of Installation of a Personal Wireless Service Facility.

3. Permittee shall file with Public Works a Verified Statement from a registered engineer that the permitted and installed Personal Wireless Service Facility complies with the Public Health Compliance Standard within thirty (30) Business Days of Substantial Completion of Installation of a Personal Wireless Service Facility.

4. Prior to the Substantial Completion of Installation of a Personal Wireless Service Facility, any City department that reviewed the Application may request that a Permittee provide such department with photographs of the nearly completed Personal Wireless Service Facility. Providing such photographs will enable the City to determine in advance of the inspection whether the Permittee has complied with the requirements of the Personal Wireless Service Facility Site Permit.

D. Failure to Timely Start and/or Substantially Complete Installation.

If Permittee fails to timely Start Installation within the Installation Period, or Substantially Complete Installation as required by this Section, Public Works may revoke the previously issued Personal Wireless Service Facility Site Permit.

Section 17. CONSTRUCTION REQUIREMENTS

A. Compliance with Permit.

Permittee's construction of a Personal Wireless Service Facility shall fully comply with Permittee's Personal Wireless Service Facility Site Permit, including any Conditions contained therein.

B. Other Permits and Authorizations.

Permittee shall obtain all other permits and authorizations from Public Works or third parties that may be required prior to any construction, maintenance, repair, replacement, or modification of any Personal Wireless Service Facility. This shall include a temporary occupancy permit.

C. Department of Parking and Traffic.

Permittee shall contact the Department of Parking and Traffic for traffic requirements prior to beginning construction/installation.

D. Traffic Regulations.

Permittee shall conduct its construction/installation operations in accordance with the requirements of Article 11 of the S.F. Traffic Code.

E. Damage to Existing Facilities.

Permittee shall be solely responsible for any damage to existing facilities caused by Permittee's construction/installation activities.

F. Damage to the Public Rights-of-Way.

Permittee shall be solely responsible for any damage to the Public Rights-of-Way caused by Permittee's construction/installation activities.

G. City Signage.

Permittee shall be solely responsible for ensuring that any City signage removed from a Utility, Transit, or Street Light Pole during installation of a Personal Wireless Service Facility is replaced in the same location, unless Permittee obtains permission in writing from the City department responsible for installing and maintaining the sign to remove or relocate the sign.

H. Permit Posting.

Permittee shall post a copy of the first page of the issued Personal Wireless Service Facility Site on the pole during construction and inspection. Permit shall be removed after final inspection has been completed.

Section 18. INSPECTION

A. Time for Inspection.

1. Public Works shall inspect a permitted and installed Personal Wireless Service Facility as required under Public Works Code § 1516(b) within five (5) Business Days after receipt of notice of Substantial Completion of Installation required under Section 16 above.

2. Along with the notice, Permittee shall include photographs of the installed Personal Wireless Service Facility.

B. Requirements of Inspection.

Public Works shall inspect an installed Personal Wireless Service Facility to determine whether:

1. The installation is in accordance with the requirements of the Personal Wireless Service Facility Site Permit, including any Conditions imposed by any City department and accepted by Permittee.

2. The permitted Personal Wireless Service Facility complies with the Public Health Compliance Standard.

3. The Permittee has replaced any City signage that was removed from a Utility, Transit, or Street Light Pole during installation of a Personal Wireless Service Facility.

C. Notice of Deficiency.

Public Works shall issue a notice of deficiency under Public Works Code § 1517(b) and Section 26 below if Public Works determines after an inspection that an installed Personal Wireless Service Facility is not in compliance with a Personal Wireless Service Facility Site Permit, including any Conditions imposed by any City department and accepted by Permittee, the Public Health Compliance Standard, or any of the requirements of this Order.

Section 19. TERM AND EXPIRATION AND RENEWAL

A. Applicability of Term Provisions.

The term provisions contained in Public Works Code § 1519 and this Section shall apply to all Personal Wireless Service Facility Site Permits issued by Public Works including those issued under Section 11.9(b) of the Administrative Code (now repealed).

B. Applicability of Renewal Provisions.

The renewal provisions contained in Public Works Code § 1520 and this Section shall apply to all Personal Wireless Service Facility Site Permits issued by Public Works, including those issued under Section 11.9(b) of the Administrative Code (now repealed).

Section 20. Notice of Expiration of Permit.

Public Works may notify a Permittee one (1) year prior to the expiration date that the Permittee's Personal Wireless Service Facility Site Permit will expire. The failure to issue the timely notice shall not affect or extend the expiration date.

Section 21. RENEWAL PROCEDURE

A. Renewal.

1. Under Public Works Code § 1520, Permittee may renew a Personal Wireless Service Facility Site Permit for a Personal Wireless Service Facility that was not issued a Modification Permit for one (1) additional term of ten (10) years.

2. Permittee seeking to renew a Personal Wireless Service Facility Site Permit shall submit a renewal Application under this section. The Permittee shall submit the renewal Application no later than six (6) months prior to the expiration of the term of the Permit.

B. Renewal Application.

An Application to renew a Personal Wireless Service Facility Site Permit shall contain the following:

1. A completed renewal Application form.

2. A Verified Statement from a registered engineer that the operation of the permitted and installed Personal Wireless Service Facility complies with the Public Health Compliance Standard.

3. A statement that the Permit may be renewed because: (a) the permitted Personal Wireless Service Facility had not been issued a Modification Permit; and (b) the Permit had not been previously renewed.

C. Completeness and Eligibility Review.

1. Public Works shall first determine whether a renewal Application is Complete and eligible for renewal.

2. Public Works shall notify the Applicant within three (3) Business Days whether the renewal Application is both Complete and eligible for renewal.

3. If the renewal Application is Complete and eligible for renewal, Public Works shall process the Application as set forth below.

4. If the renewal Application is not Compete, Public Works shall return the Application along with a statement of what additional information Public Works requires to make the Application Complete.

5. If the renewal Application is not eligible for renewal, Public Works shall deny the Application.

D. Effect of Renewal Application.

A timely filed renewal Application will extend the term of a Permit until Public Works either denies or approves the renewal Application.

E. Approval or Denial of Renewal Application.

Public Works shall refer a renewal Application that is eligible for renewal to the Department of Public Health. Public Works shall issue a final determination approving or denying a renewal Application within three (3) Business Days of receipt of a determination from the Department of Public Health that the installed Personal Wireless Service Facility complies or does not comply with the Public Health Compliance Standard and Applicable Law related to human exposure to radio frequency emissions.

F. Suspension or Denial for Lack of Compliance.

Public Works may suspend review of or deny a renewal Application if Public Works has issued a notice of deficiency to the Applicant related to any existing Personal Wireless Service Facility Site Permit, and the Applicant has not corrected the deficiency within a reasonable time as required by Public Works under Section 26 below.

G. No Public Notice of Approval.

Public notice of a Public Works determination to approve a renewal Application is not required.

H. Effect of Approval.

Public Works' approval of a renewal Application shall extend the term of a Personal Wireless Service Facility for ten (10) years from the date of the expiration of the original Permit term.

I. Denial or Failure to Renew Application.

1. If Public Works denies a renewal Application, Permittee shall promptly remove the formerly permitted Personal Wireless Service Facility from the Public Rights-of-Way unless the Applicant files an appeal of the denial with the Board of Appeals. In which case, Public Works will stay enforcement of any removal requirement until the Board of Appeals issues a determination on the Applicant's appeal.

2. If Permittee fails to timely file a renewal Application, Public Works will notify Permittee that the Permit has expired and shall require Permittee to remove the formerly permitted Personal Wireless Service Facility from the Public Rights-of-Way within thirty (30) Days from the date of the notice.

3. Notwithstanding the requirements of this Section, for good cause shown Public Works may allow a Permittee that has failed to timely file a renewal Application to file an Application for a new Personal Wireless Service Facility Site Permit. In no event, however, shall Public Works allow a

Permittee to file a renewal Application after the date Public Works has required Permittee to remove the permitted Personal Wireless Service Facility from the Public Rights-of-Way.

J. Permits Not Eligible for Renewal.

1. If a Personal Wireless Service Facility Site Permit is not eligible for renewal, a Permittee must file a new Application for a Personal Wireless Service Facility Site Permit.

2. If the new Application is filed within six (6) months prior to the expiration of the Permit term, the Applicant may continue to maintain the permitted Personal Wireless Service Facility under the existing Permit unless or until there is a final determination denying Permittee's application for a new Personal Wireless Service Facility Site Permit at this location.

Section 22. REMOVAL OF FACILITIES UPON EXPIRATION OF PERMIT

A. Removal Required.

Upon the expiration or termination of a Personal Wireless Service Facility Site Permit, Permittee shall at its own expense permanently remove from the Public Rights-of-Way all permitted Personal Wireless Service Facilities including removing from the Utility, Transit, or Street Light Poles all antennas, cabling, conduits, mounting brackets, wireline or fiber-optic enclosures, informational warning stickers, and decals.

B. Failure to Remove Permitted Equipment.

If Permittee fails to timely remove a Personal Wireless Service Facility after expiration or termination of a Personal Wireless Service Facility Site Permit Public Works shall take all reasonable, necessary, and appropriate action in accordance with Applicable Law to remedy Permittee's failure to comply and may charge the reasonable costs actually incurred, including but not limited to administrative costs, to Permittee.

Section 23. REPLACEMENT AND REMOVAL OF EQUIPMENT

A. When Allowed.

A Permittee may Replace or remove equipment used at a permitted Personal Wireless Service Facility without obtaining a Modification Permit.

B. Equipment Replacement and Removal Procedure.

1. A Permittee seeking to Replace or remove equipment installed on a Utility, Transit, or Street Light Pole pursuant to a Personal Wireless Service Facility Site Permit where there is no Emergency shall provide Public Works with the information required under this Section at least five (5) Business Days prior to replacing the equipment.

2. A Permittee seeking to Replace or remove equipment installed on a Utility, Transit, or Street Light Pole pursuant to a Personal Wireless Service Facility Site Permit on an Emergency basis shall provide Public Works with the information required under this Section within two (2) Business Days of replacing the equipment.

C. Information Required for Replacement Equipment.

When Replacing equipment installed on a permitted Personal Wireless Service Facility a Permittee shall provide Public Works with the following information:

1. The use and size of each piece of equipment the Permittee is seeking to remove from the Utility, Transit, or Street Light Pole;

2. The use and size of each piece of equipment the Permittee is seeking to install on the Utility, Transit, or Street Light Pole to Replace existing equipment; and

D. Public Works Notification.

1. Public Works shall notify a Permittee within five (5) Business Days of receipt of a request to Replace equipment installed on a Utility, Transit, or Street Light Pole whether the request complies with the requirements of Public Works Code § 1521.

2. If Public Works notifies the Permittee that the request does not comply, the Permittee may not Replace the Equipment. In the case of an Emergency replacement, the Permittee must remove the replacement equipment and install new replacement equipment that complies with Public Works Code § 1521.

3. Any Permittee that is denied a request to Replace equipment at a permitted Personal Wireless Service Facility may instead file an Application for a Modification Permit under Public Works Code § 1522.

Section 24. MODIFICATION PERMITS

A. Modification Permit Required.

A Modification Permit is required to replace equipment at a permitted Personal Wireless Service Facility that is not identical in size or smaller than the permitted equipment being removed or to collocate or add new equipment to a permitted Personal Wireless Service Facility.

B. Modification Permit Application.

1. In an Application for a Modification Permit submitted under Public Works Code § 1522(c)(1), the Applicant shall:

(a) State the basis for Applicant's claim that the permitted Personal Wireless Service Facility is a Base Station;

(b) State whether the Application consists of an Eligible Facilities Request;

(c) State whether each piece of equipment the Applicant is seeking to add to an Existing Base Station is Transmission Equipment;

(d) State whether the proposed modification would result in a Substantial Change to the Physical Dimensions of an Existing Base Station;

(e) Identify the use and size of any equipment that the Applicant seeks to remove from an Existing Base Station;

(f) Identify the use and size of any equipment that the Applicant seeks to add to an Existing Base Station;

(g) Provide recent photographs of the Existing Base Station;

(h) Provide drawings or photo-simulations of the existing and new equipment the Permittee is seeking to install on an Existing Base Station;

(i) Verify that the modified Base Station would comply with the Public Health Compliance Standard; and

(j) Verify that the modified Base Station would not compromise the integrity of the Utility, Transit, or Street Light Pole where the Personal Wireless Service Facility has been installed.

2. In an Application for a Modification Permit submitted under Public Works Code §§ 1522(c)(2), 1522(c)(3) or 1522(d) the Applicant shall:

(a) Identify the use and size of any equipment that the Applicant seeks to remove from a Utility, Transit, or Street Light Pole;

(b) Identify the use and size of any equipment that the Applicant seeks to add to a Utility, Transit, or Street Light Pole;

(c) Provide drawings and photo-simulations of the existing and new equipment the Permittee is seeking to install on a Utility, Transit, or Street Light Pole; and

(d) Verify that the modified Personal Wireless Service Facility would comply with the Public Health Compliance Standard.

C. Completeness Review.

1. Public Works shall first determine whether an Application for a Modification Permit is Complete.

2. Public Works shall endeavor to notify the Applicant within three (3) Business Days whether the Application for a Modification Permit is Complete, but shall have up to thirty (30) Days to issue the notice.

3. If the Application for a Modification Permit is Complete, Public Works shall process the Application as set forth below.

4. If the Application for a Modification Permit is not Complete, Public Works shall return the Application along with a statement of what additional information Public Works requires to make the Application Complete. Public Works will not process an Application until the Applicant has returned the Application to Public Works with all of the required information.

5. Public Works may issue additional notices that an Application is not Complete if any resubmitted Application does not contain all of the information requested by Public Works. Any additional notices shall be issued within ten (10) Days of receipt of the information required from the Applicant in the prior notice.

D. Tolling.

1. The timely issuance by Public Works of a notice that an Application for a Modification Permit is not Complete shall toll any deadline for issuing a final determination that is required by federal or State law.

2. The time period shall not restart until after the Applicant has provided Public Works with all of the information required for a Complete Application.

3. This same rule shall apply to an additional notice that an Application for a Modification Permit is not Complete issued by Public Works after an Application has been resubmitted.

E. Referral to Department of Public Health Review.

Public Works may refer an Application for a Modification Permit to the Department of Public Health if Public Works has reason to believe that the proposed modifications to a permitted Personal Wireless Service Facility identified in the Application would result in the modified Personal Wireless Service Facility being out of compliance with the Public Health Compliance Standard.

F. Public Works Approval.

1. Public Works shall approve an Application for a Modification Permit under Public Works Code § 1522(c)(1) if the Application consists of an Eligible Facilities Request, provided that the installation of the modified Transmission Equipment would not Substantially Change the Physical Dimensions of an Existing Base Station.

2. Public Works may approve any of the following types of Applications for Modification Permits if the Permittee complies with the requirements of Public Works Code § 1522(e)(2):

(a) The Application is under Public Works Code § 1522(c)(2) because the Permittee is seeking to install new Transmission Equipment that would Substantially Change the Physical Dimensions of an Existing Base Station.

(b) The Application is under Public Works Code § 1522(c)(3) because the Permittee is seeking to modify equipment other than Transmission Equipment.

(c) The Application is under Public Works Code § 1522(d) because the Permittee is seeking to modify a Personal Wireless Service Facility that is not a Base Station.

G. Time for Public Works Approval.

1. Public Works shall make a final determination whether to approve or deny an Application for a Modification Permit within ten (10) Business Days of Public Works' determination that the Application is Complete.

2. If the Application for a Modification Permit falls under the requirements of Public Works Code § 1522(c)(1), and Public Works has not issued a final determination approving or denying an Application for a Modification Permit within sixty (60) Days after the Application was submitted (subject to any application tolling), the Permittee shall notify Public Works after the reviewing period has expired that the Permittee has deemed the Application granted. Absent such a notice, the Permittee may not claim that the Application has been deemed granted.

5. In all other instances, Public Works shall issue a final determination approving or denying an Application for a Modification Permit within ninety (90) Days (subject to any application tolling). If an Applicant for a Modification Permit determines that Public Works has not issued a final determination within ninety (90) Days after the Modification Permit Application was submitted (subject to applicable tolling), as required by Government Code § 65964.1, the Applicant shall notify Public Works in writing that the Applicant has determined that the Modification Permit Application should be "deemed approved" as required by State law. An Applicant's failure to notify Public Works as set forth above shall mean that its Modification Permit Application will not be "deemed approved" regardless of whether Public Works has issued a final determination within ninety (90) Days after the Modification Permit Application was submitted (subject to applicable tolling) as required by Government Code § 65964.1.

4. Notwithstanding the foregoing, the Permittee and Department may agree in writing to extend the deadline for issuing a final determination approving or denying a Modification Permit Application.

H. Suspension or Denial for Lack of Compliance.

Public Works may suspend review of or deny an Application for a Modification Permit if Public Works has issued a notice of deficiency to the Applicant related to any existing Personal Wireless Service Facility Site Permit, and the Applicant has not corrected the deficiency within a reasonable time as required by Public Works under Section 26 below.

I. Effect of Modification Permit on Permit Term.

The issuance of a Modification Permit will not start a new term. The Modification Permit will expire on the same date the Personal Wireless Service Facility Site Permit previously issued to the Permittee for that location will expire.

J. Appeal of Public Works Determination.

A Public Works determination to deny any Application for a Modification Permit, including an Application submitted under Public Works Code § 1522(c)(1), may be appealed to the Board of Appeals.

Section 25. INACTIVE OR ABANDONED PERSONAL WIRELESS SERVICE FACILITIES

A. Removal of Inactive Facilities

Permittee shall remove from the Public Rights-of-Way any Personal Wireless Services Facilities that have not been used to provide Personal Wireless Service for six (6) continuous months, unless Permittee demonstrates to Public Works that: (i) Permittee's non-use of the permitted Personal Wireless Service Facilities for six (6) months was reasonable under the circumstances; and (ii) Permittee intends to re-activate the permitted Personal Wireless Service Facilities within the next six (6) months.

B. Notice of Abandonment.

1. Public Works shall notify Permittee whenever Public Works has reason to believe that a Personal Wireless Service Facility, including any of the component parts thereof, has been abandoned because it has not been properly maintained or because it has not been used to provide Personal Wireless Service for six (6) continuous months. A Personal Wireless Service Facility that has been marked with Graffiti has not been properly maintained.

2. The notice shall state that Permittee has sixty (60) Days to remove either the entire abandoned Personal Wireless Service Facility, or any of the component parts thereof that have been abandoned, from the Public Rights-of-Way.

C. Response to a Notice of Abandonment.

1. If Permittee disagrees with the notice of abandonment, within sixty (60) Days of receipt of the notice Permittee shall notify Public Works in writing that:

   (a) The Personal Wireless Service Facility is in good working order;

   (b) Permittee intends to repair or replace any equipment used for a Personal Wireless Service Facility that has not been properly maintained within thirty (30) Days; or

   (c) Permittee will remove any Graffiti from the Personal Wireless Service Facility within thirty (30) Days.

2. At the request of Permittee in writing, Public Works may grant Permittee an extension of time to repair or replace the abandoned Personal Wireless Service Facility.

3. If Public Works agrees with Permittee, Public Works shall withdraw the notice.

C. Failure to Remove Abandoned Facility.

1. If Permittee fails to remove the abandoned Personal Wireless Service Facility, as required by Public Works, Public Works may remove the facility.

2. Public Works will endeavor to remove the Personal Wireless Service Facility and to return the equipment to Permittee in the same condition as it was at the time of removal. Public Works, however, does not assume any responsibility for any damage to the equipment resulting from Public Works' removal and storage of any abandoned equipment.

3. Public Works may deduct the cost of removing the abandoned Personal Wireless Service Facility from Permittee's deposit required under Public Works Code § 1523 and Section 27 below.

D. Removal of a Personal Wireless Service Facility

In removing an inactive or abandoned Personal Wireless Service Facility from the Public Rights-of-Way, the Permittee shall remove from the Utility, Transit, or Street Light Pole all antennas, cabling, conduits, mounting brackets, wireline or fiber-optic enclosures, informational warning stickers, and decals.

Section 26. NOTICE OF DEFICIENCY

A. Contents of Notice.

A notice of deficiency issued pursuant to Public Works Code § 1517(b) shall:

1. State the basis for Public Works' determination that a permitted Personal Wireless Service Facility is not in compliance with a Personal Wireless Service Facility Site Permit, Public Works Code Article 25, or this Order;

2. Give Permittee reasonable time to correct the deficiency. If the notice of deficiency concerns a violation of the Public Health Compliance Standard, Public Works may require immediate compliance;

3. State Public Works' remedies if Permittee fails to take corrective action, which can include revocation of the Permit; and

4. Notify Permittee whether Public Works intends to suspend review of or deny other pending Applications for a Personal Wireless Service Facility Site Permits should Permittee fail to timely correct the deficiency.

B. Compliance with Notice of Deficiency.

1. Permittee shall timely comply with a notice of deficiency.

2. If Permittee should fail to timely comply with a notice of deficiency Public Works:

(a) Shall take the corrective action set forth in the notice; and

(b) May suspend review of or deny Permittee's pending Applications for Personal Wireless Service Facility Site Permits.

Section 27. DEPOSIT

Permittee's deposit required under Public Works Code § 1523 shall be available to Public Works to secure the faithful performance of the obligations of Permittee under any Personal Wireless Service Facility Site Permit. If Permittee has not made such a deposit, Permittee shall submit and maintain with Public Works one (1) bond, cash deposit, or other security acceptable to Public Works securing the faithful performance of the obligations of Contractor and its agent under any Permit issued under this Order. The deposit shall be in the sum of $25,000 in favor of the "Public Works, City and County of San Francisco." If the Director has deducted any amounts from such a deposit pursuant to this Order, Permittee must restore the full amount of the deposit prior to Public Works' issuance of a subsequent Permit. Public Works shall return the deposit to Permittee should Permittee cease to operate any Personal Wireless Service Facilities in the Public Rights-of-Way.

Section 28. ADDITIONAL FEES

A. Director May Require Additional Permit Fees.

1. Pursuant to Public Works Code § 1527(d), the Director may require an Applicant for a Personal Wireless Service Facility Site Permit to pay a sum in excess of the normal Permit fees.

2. Public Works shall not approve an Application for a Personal Wireless Service Facility Site Permit unless Applicant agrees to pay these additional Permit fees when required.

B. Imposition of Additional Permit Fees for Individual Applications.

1. Any City department reviewing an Application for a Personal Wireless Service Facility Site Permit shall determine whether its review of an individual Application will be unusually costly. A City department other than Public Works shall provide Public Works with an estimate of its additional costs along with an explanation of the reasons these additional costs must be incurred.

2. Prior to requiring additional Permit fees, the Director shall notify an Applicant that it will be unusually costly for either Public Works or another City department to review an Application for a Personal Wireless Service Facility Site Permit. The notice shall include an estimate of its additional costs along with an explanation of the reasons these additional costs must be incurred, and shall offer the Applicant the opportunity to withdraw or modify the Application in order to avoid any additional Permit fees.

3. With the consent of the Applicant, the applicable City department may incur these costs and recover them as additional Permit fees.

C. Imposition of Additional Permit Fees for a Class of Permit Applications.

1. The Director may impose additional fees for a class of Applications for Personal Wireless Service Facility Site Permits where the Director has determined that processing such Applications will be unusually costly to process.

2. To impose such additional fees, the Director must issue a Director's order stating the reasons such fees are required and necessary.

3. Once the Director establishes such fees, Public Works shall not approve an Application for a Personal Wireless Service Facility Site Permit unless and until the fee is paid, if applicable.

Section 29. RECOVERY OF CITY DEPARTMENT COSTS

A. Costs of Technical Experts.

1. Pursuant to Public Works Code § 1527(f), any City department may retain the services of an expert in order to evaluate an Application for a Personal

Wireless Service Facility Site Permit, and seek reimbursement for the cost of those services from an Applicant.

2. Prior to incurring any reimbursable costs, a City department shall notify an Applicant that it requires the services of a technical expert. The notice shall explain in detail the expert services required and offer the Applicant the opportunity to withdraw or modify the Application in order to avoid those costs.

3. If the Applicant intends to pursue the Application, the applicable City department shall then work with the Applicant to identify Persons with the necessary expertise to provide the required services and to establish a budget for the expert's services.

4. With the consent of the Applicant, the applicable City department shall retain the expert to perform the required services.

B. Publication Cost for Notice of Hearing.

1. Public Works shall require an Applicant for a Personal Wireless Service Facility that is the subject of a protest to reimburse Public Works for the cost of publishing notice of the hearing in the official newspaper of the City and County of San Francisco.

2. After placing the advertisement, Public Works shall bill the Applicant for such costs, which bill shall be due and payable within thirty (30) Days.

3. In the event the Applicant fails to pay as required, Public Works may deduct the cost of the advertisement from Permittee's deposit required under Public Works Code § 2.4.40 and Section 27 above.

Section 30. BASE STATION DETERMINATION

A. Request for Base Station Determination.

1. An Applicant for a Personal Wireless Service Facility Site may submit a request to Public Works for a determination that its proposed Personal Wireless Service Facility is a Base Station along with its Application.

2. A Permittee may submit a request to Public Works for a determination that a permitted Personal Wireless Service Facility is a Base Station at any time.

3. An Application for a Modification Permit may state in the Application that a permitted Personal Wireless Service Facility is a Base Station.

B. Time for Public Works Determination.

1. Public Works shall issue a determination on a request for a Base Station determination submitted by an Applicant for a Personal Wireless Service Facility Site Permit when Public Works issues a final determination approving or denying the Application for the applicable Permit.

2. Public Works shall issue a determination on a request for a Base Station determination submitted by Permittee within ten (10) Business Days of receipt of the request.

3. Public Works shall issue a determination whether a permitted Personal Wireless Service Facility identified in an Application for a Modification Permit is a Base Station along with the determination granting or denying the Application.

C. Treatment of Certain Personal Wireless Service Facilities.

1. If a Permittee was a plaintiff in the lawsuit filed in the San Francisco Superior Court entitled *T-Mobile West LLC v. City and County of San Francisco* (Case No, CGC-11-510703) all of the Permittee's Personal Wireless Service Facilities that were permitted on or before November 27, 2014 shall be treated as Base Stations.

2. If a Permittee was a plaintiff in the lawsuit filed in the San Francisco Superior Court entitled *T-Mobile West LLC v. City and County of San Francisco* (Case No, CGC-11-510703) Public Works shall treat any of the Permittee's Personal Wireless Service Facilities permitted after November 27, 2014 as Base Stations provided the Permittee demonstrates to Public Works that the equipment used by Permittee on those Personal Wireless Service Facilities is similar to the equipment used by the Permittee on the Personal Wireless Service Facilities that were permitted on or before November 27, 2014.

D. Effect of Base Station Determination.

Once Public Works has made a determination that a permitted Personal Wireless Service Facility is a Base Station, Public Works shall rely on that determination to determine whether to approve or deny an Application for a Modification Permit for that particular Personal Wireless Service Facility.

Section 31. PLANNING DEPARTMENT REVIEW UNDER PUBLIC WORKS CODE § 1509(b)(2).

A. Review upon Receipt of Application.

1. If the Planning Department can determine from the Application that a proposed Personal Wireless Service Facility Site Permit would Substantially Obstruct Views from or Block Light into a Residential Window, the Planning Department may Condition its approval of the Application on the Applicant agreeing to modify the design of the proposed

Personal Wireless Service Facility Site in order to mitigate these effects by, among other things, relocating or reorienting the equipment to be installed on the Utility, Transit, or Street Light Pole.

2. Public Works may deny the Application if the Applicant refuses to accept these Conditions.

B. Review Following a Protest.

1. If a protest of Tentative Approval of an Application for a Personal Wireless Service Facility Site Permit includes a claim that the proposed Personal Wireless Service Facility would Substantially Obstruct Views from or Block Light into a Residential Window, the Planning Department will review the photographs and other documentation submitted by the protester to determine the validity of the claim. If necessary, the Planning Department will request that the protester provide the Planning Department and Applicant with access to the premises.

2. Within five (5) Business Days of receipt of the protest, the Planning Department will notify Public Works, the protester, and the Applicant in writing whether the Planning Department agrees with the protester that the proposed Personal Wireless Service Facility would Substantially Obstruct Views from or Block Light into a Residential Window and, if so, what Conditions the Planning Department will add to its approval of the Application to ameliorate the obstruction/blocking.

3. Within two (2) Business Days of receipt of these Conditions, the Applicant will notify Public Works, the Planning Department, and the protester in writing whether the Applicant accepts or objects to the proposed Conditions.

4. Public Works may deny the Application if the Applicant refuses to accept these Conditions.

C. Review Following a Hearing.

If any Person attending a hearing on a protest of Tentative Approval of an Application for a Personal Wireless Service Facility Site Permit claims that the proposed Personal Wireless Service Facility would Substantially Obstruct Views from or Block Light into a Residential Window, and the hearing officer determines based on the record during the hearing that such claims are legitimate, then the following process shall take place:

1. The hearing officer shall continue the hearing so that the Applicant and the Planning Department may further investigate those claims, including by visiting the premises with the permission of the property owner or resident.

2. The Applicant and the Planning Department shall report back to the hearing officer and the protester in writing within five (5) Business Days.

3. The Planning Department may recommend that the hearing officer Conditions its approval of the Application on the Applicant agreeing to modify the design of the proposed Personal Wireless Service Facility to mitigate these effects by, among other things, relocating or reorienting the equipment on the Utility, Transit, or Street Light Pole.

3. If either the protester or the Applicant disagrees with the Planning Department's report and/or recommendations, the hearing officer shall determine whether the proposed Personal Wireless Service Facility would Substantially Obstruct Views from or Block Light into a Residential Window and, if so, what Conditions should be added to the Permit to mitigate these effects.

4. If the hearing officer determines that the proposed Personal Wireless Service Facility would Substantially Obstruct Views from or Block Light into a Residential Window the hearing officer may recommend that the Director disapprove the Application unless the Applicant accepts any additional Conditions that the hearing officer determines are necessary to mitigate these effects.

D. Basis for Determination.

1. In making a determination that a proposed Personal Wireless Facility would Substantially Obstruct Views from or Block Light into a Residential Window, the Planning Department or hearing officer will consider the following:

(a) If there is existing utility infrastructure in front of any windows on a residential property, the extent to which the proposed Personal Wireless Service Facility would substantially increase any existing obstructions of views from or blocking of light into such residential windows.

(b) If there is no existing utility infrastructure in front of any windows on a residential property, the extent to which the proposed Personal Wireless Service Facility would substantially obstruct views from or block light into such windows.

2. In making these determinations, the Planning Department or hearing officer shall take into account such factors as the use of the windowed room, the nature of the views from the room, the direction the room is facing, and any existing shadowing from other sources.

Section 32. DEPARTMENT FORMS

A. Authorized Forms.

Public Works, Applicants for Personal Wireless Service Facility Site Permits or Modification Permits, and Permittees shall use the following forms authorized by this Order and attached hereto as Exhibits:

1. Application for a Personal Wireless Service Facility Site Permit
2. Notice of Completeness/Deficiency of Application
3. Notice of City Department Conditions
4. Public Works Notice of Tentative Approval to Applicant
5. Notice of Tentative Approval of Application for a Personal Wireless Service Facility Site Permit (Mail)
6. Public Notice of Tentative Approval (Posting)
7. Notice of Final Determination to Deny Application
8. Notice of Final Determination to Approve Application
9. Personal Wireless Service Facility Site Permit
10. Notice of Starting Installation
11. Notice of Substantial Completion of Installation
12. Notice of Removal or Replacement of Equipment
13. Renewal Application
14. Application for a Modification Permit
15. Notice of Completeness/Deficiency of Modification Application
16. Notice of Final Determination to Approve or Deny Renewal Application
17. Notice of Final Determination to Approve or Deny Modification Application Under Public Works Code § 1522(c)(1)
18. Notice of Final Determination to Approve Modification Application Under Public Works Code §§ 1522(c)(2), 1522(c)(3), or 1522(d)
19. Notice of Final Determination to Deny Modification Application Under Public Works Code §§ 1522(c)(2), 1522(c)(3), or 1522(d)
20. Notice of Suspension of Review of Application
21. Notice of Applicant's Initial Response to City Department Conditions
22. Notice of City Departments' Response to Applicant's Initial Response to City Department Conditions
23. Personal Wireless Service Facility Modification Permit
24. Request for Base Station Determination and Public Works Response
25. Notice of Expiration
26. Agreement to Extend Deadline for Final Determination

B. Amendments to or New Authorized Forms.

Public Works may amend the authorized forms or prepare and issue new authorized forms as Public Works in its discretion deems necessary.

Approved:

1/27/2016

X 

Sanguinetti, Jerry
Bureau Manager
Signed by: Sanguinetti, Jerry

1/29/2016

X 

Sweiss, Fuad
Deputy Director and City Engineer
Signed by: Sweiss, Fuad

1/29/2016

X Mohammed Nuru

Nuru, Mohammed
Director, DPW
Signed by: Nuru, Mohammed

Exhibit D: On May 6, 2021 Ordinance

[Public Works Code - Personal Wireless Service Facility Site Permits]

Ordinance amending the Public Works Code to authorize Public Works to issue Personal Wireless Service Facility Site Permits to install Personal Wireless Service Facilities on stand-alone poles; and making certain corrections to other provisions.

NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.
Additions to Codes are in *single-underline italics Times New Roman font*.
Deletions to Codes are in ~~*strikethrough italics Times New Roman font*~~.
Board amendment additions are in double-underlined Arial font.
Board amendment deletions are in ~~strikethrough Arial font~~.
Asterisks (* * * *) indicate the omission of unchanged Code subsections or parts of tables.

Be it ordained by the People of the City and County of San Francisco:

Section 1. Article 25 of the Public Works Code is hereby amended by revising Sections 1500, 1502, 1508, 1509, 1511, 1514, 1521, and 1522, and adding Section 1503, to read as follows:

SEC. 1500. PERSONAL WIRELESS SERVICE FACILITY SITE PERMIT.

(a) **Personal Wireless Service Facility Site Permit Required.** The Department shall require any Person seeking to construct, install, or maintain a Personal Wireless Service Facility in the Public Rights-of-Way to obtain a Personal Wireless Service Facility Site Permit.

(b) **Minimum Permit Requirements.**

(1) The Department shall not issue a Personal Wireless Service Facility Site Permit if the Application for a Personal Wireless Service Facility Site Permit does not comply with all of the requirements of this Article 25.

(2) The Department shall require an Applicant for a Personal Wireless Service Facility Site Permit to demonstrate to the satisfaction of the Department that:

(A) The Department has issued the Applicant a Utility Conditions Permit as required by ~~*San Francisco*~~ Administrative Code Section 11.9;

(B) The pole owner has authorized the Applicant to use or replace the Utility Pole identified in the Application *(where the Application is to use an existing Utility Pole)*; and

(C) The Applicant has obtained any approvals that may be required under the California Environmental Quality Act (California Public Resources Code Section 21000 et seq.) to construct, install, and maintain the proposed Personal Wireless Service Facility.

(c) **Permit Prohibited.** The Department shall not issue a Personal Wireless Service Facility Site Permit if the Applicant seeks to:

(1) Install a *Stand-alone Pole to be used for a Personal Wireless Service Facility* ~~*new Utility Pole*~~ on a Public Right-of-Way where there presently are no overhead utility facilities; or

(2) Add a Personal Wireless Service Facility ~~*on*~~ *to* a Utility Pole *or Stand-alone Pole* for which a Personal Wireless Service Facility Site Permit has already been approved.

(d) **Permit Conditions.** The Department may include in a Personal Wireless Service Facility Site Permit such conditions, in addition to those already set forth in this Article 25 and other Applicable Law, as may be required to govern the construction, installation, or maintenance of Personal Wireless Service Facilities in the Public Rights-of-Way, and to protect and benefit the public health, safety, welfare, and convenience, provided that no such conditions may concern the particular technology used for a Personal Wireless Service Facility.

(e) **Installation of Cabinets or Vaults in the Public Rights-of-Way.** The Department shall not include in a Personal Wireless Service Facility Site Permit an authorization for the Permittee to install a surface-mounted equipment cabinet or underground equipment vault in the Public Rights-of-Way. In order to install such an equipment cabinet or vault in the Public Rights-of-Way for use with a Personal Wireless Service Facility, a Permittee must fully comply with any other City permitting requirements related to the installation of such facilities.

(f) **Other Provisions Inapplicable.** Notwithstanding the requirements of San Francisco Business and Tax *Regulations* Code Sections 5, 6, and 26(a), the provisions of this Article 25 shall govern all actions taken by the City with respect to the approval or denial of an Application for a Personal Wireless Service Facility Site Permit under this Article 25.

SEC. 1502. DEFINITIONS.

For purposes of this Article 25, the following terms, phrases, words, abbreviations, their derivations, and other similar terms, when capitalized, shall have the meanings given herein. When not inconsistent with the context, words used in the present tense include the future tense; words in the plural number include the singular number; and words in the singular number include the plural number.

*** * * ***

"*Disfavored Location" means a proposed location for a Personal Wireless Service Facility Site Permit on a Stand-alone Pole in which one or more of the following applies:*

(a) A Public Right-of-Way where the City has completed, or has plans for, major capital improvements, including streetscape and pedestrian safety improvements.

(b) A Public Right-of-Way that is known for having a high volume of pedestrian traffic (e.g. Neighborhood Commercial and Downtown Commercial zoning districts).

(c) A Public Right-of-Way that the Board of Supervisors has legislated as an underground utility district, or that the Department has started the process of seeking to have legislated as an underground utility district.

*** * * ***

"Placement Criteria" means the Department's criteria for locating Personal Wireless Service Facilities on a Stand-alone intended to ensure that a Personal Wireless Service Facility does not incommode the public's use of the Public Right-of-Way, which the Department shall establish by order or regulation in consultation with the Planning Department.

"Planning Protected Location" means any of the following proposed locations for a Personal Wireless Service Facility:

(a) On an historic, historically or architecturally significant, decorative, or specially designed Utility Pole located in the Public Right~~s~~-of-Way;

(b) On a Utility Pole *or Stand-alone Pole* that is on a Public Right-of-Way that is within a national historic landmark district, listed or eligible national register historic district, listed or eligible California register historic district, San Francisco landmark district, local historic or conservation district, or locally significant district, as more specifically described and cataloged in materials prepared and maintained by the Planning Department;

(c) On a Utility Pole *or Stand-alone Pole* that is on a Public Right-of-Way that is Adjacent to a national historic landmark, California landmark, San Francisco landmark, structure of merit, architecturally significant building, or locally significant building, as more specifically described and cataloged in materials prepared and maintained by the Planning Department;

(d) On a Utility Pole *or Stand-alone Pole* that is on a Public Right-of-Way that the General Plan has designated as being most significant to City pattern, defining City form, or having an important street view for orientation; or

(e) On a Utility Pole *or Stand-alone Pole* that is on a Public Right-of-Way that the General Plan has designated as having views that are rated "excellent" or "good."

"Planning Protected Location Compatibility Standard" means whether an Applicant for a Personal Wireless Service Facility Site Permit demonstrates that a proposed Personal Wireless Service Facility would be compatible with any of the Planning Protected Locations as follows:

(a) For a historic, historically or architecturally significant, decorative, or specially designed Utility Pole, the applicable standard is whether a proposed Personal Wireless Service Facility would significantly degrade or detract from the aesthetic attributes that distinguish the Utility Pole as historic, historically significant, architecturally significant, decorative, or specially designed.

(b) For a Public Right-of-Way that is within a national historic landmark district, listed or eligible national register historic district, listed or eligible California register historic district, San Francisco landmark district, local historic or conservation district, or locally significant district, the applicable standard is whether a proposed Personal Wireless Service Facility would significantly degrade or detract from the aesthetic attributes that were the basis for the special designation of the district.

(c) For a Utility Pole *or Stand-alone Pole* that is Adjacent to a national historic landmark, California landmark, San Francisco landmark, structure of merit, architecturally significant building, or locally significant building, the applicable standard is whether a proposed Personal Wireless Service Facility would significantly degrade or detract from the aesthetic attributes that were the basis for the special designation of the building.

(d) For a Public Right-of-Way that the General Plan has designated as being most significant to City pattern, defining City form, or having an important street view for orientation, the applicable standard is whether a proposed Personal Wireless Service Facility would

significantly degrade or detract from the aesthetic attributes that were the basis for the designation of the street for special protection under the General Plan.

(e) For a Public Right-of-Way that the General Plan has designated as having views that are rated "excellent" or "good," the applicable standard is whether a proposed Personal Wireless Service Facility would significantly impair the views of any of the important buildings, landmarks, open spaces, or parks that were the basis for the designation of the street as a view street.

* * * *

"Separation Requirements" mean the required distance between Personal Wireless Service Facilities installed on Stand-alone Poles, which the Department shall establish by order or regulation in consultation with the Planning Department and Department of Technology.

"Siting Criteria" means the following criteria for siting Personal Wireless Service Facilities installed on a Stand-alone Pole;

(a) Use of a Stand-alone Pole is necessary, because the Applicant has been denied access to existing, nearby Utility Poles by the pole owner or owners to install its proposed Personal Wireless Service Facility.

(b) The proposed Stand-alone Pole will not obstruct the appropriate path of travel along the sidewalk, paying particular attention to the needs of persons with disabilities.

(c) The proposed Stand-alone Pole will not be installed on sidewalks: (1) that are narrower than the City's standard sidewalk in the applicable zoning district as set forth in the Better Streets Plan; or (2) where existing special paving or other special design features would have to be removed.

(d) The proposed Stand-alone Pole will not obstruct access to other facilities that have been installed, or the Department knows will soon be installed, in the Public Right-of-Way by other entities including City departments and entities providing utility services.

(e) The location for the proposed Stand-alone Pole is consistent with any Separation Requirements that have been adopted by the Department.

(f) The location for the proposed Stand-alone Pole is consistent with any Placement Criteria that have been adopted by the Department.

"Stand-alone Pole" means a new pole that will be installed in the Public Right-of-Way for the purpose of supporting a Personal Wireless Service Facility.

* * * *

"Unprotected Location" means a proposed location for a Personal Wireless Service Facility that is neither a Planning Protected, ~~*Zoning Protected*,~~ Zoning Protected Location, nor Park Protected Location.

* * * *

"Zoning Protected Location" means on a Utility Pole *or Stand-alone Pole* that is on a Public Right-of-Way that is within a Residential or Neighborhood Commercial zoning district under the Planning Code.

* * * *

SEC. 1503. APPLICATIONS TO INSTALL PERSONAL WIRELESS SERVICE FACILITIES ON STAND-ALONE POLES.

*(a) **Department Authority.** The Department may issue a Permit to install a Personal Wireless Service Facility on a Stand-alone Pole.*

*(b) **Siting Criteria.** In addition to meeting the other requirements for a Personal Wireless Service Facility Site Permit, the Department may grant an Application for a Permit to install a Personal Wireless Service Facility on a Stand-alone Pole only if it meets the Siting Criteria.*

*(c) **Disfavored Locations.** The Department may not grant an Application for a Permit to install a Personal Wireless Service Facility on a Stand-alone Pole in a Disfavored Location, even if the*

Application meets the Siting Criteria, unless the Applicant can show that no other suitable location is available in the Public Right-of-Way.

* * * *

SEC. 1508. DEPARTMENT REVIEW OF A PERSONAL WIRELESS SERVICE FACILITY SITE PERMIT APPLICATION.

The Department shall review an Application for a Personal Wireless Service Facility Site *Permit* ~~*Per- mit*~~ to determine whether the Application:

(a) Receives an affirmative determination from the Department of Public Health under the Public Health Compliance Standard; and

(b) Meets the applicable Tier A, Tier B, or Tier C Compatibility Standard based on the Department's application of the Objective Standard; or

(c) Must be referred to the Planning Department and/or the Recreation and Park Department for additional review because: (1) the Objective Standards have not been adopted; (2) the proposed Personal Wireless Service Facility is a Disfavored Design; or (3) the Application did not meet the applicable Tier A, Tier B, or Tier C Compatibility Standard based on the Department's application of the Objective Standards, but the Application may still comply with the applicable Tier A, Tier B, or Tier C Compatibility Standard~~.~~*; and*

(d) If the Application is for a Permit to install a Personal Wireless Service Facility on a Stand-alone Pole: (1) the proposed location meets the Siting Criteria; and (2) if the proposed location is a Disfavored Location, the Applicant has shown there is no other suitable location available in the Public Right-of-Way.

SEC. 1509. PLANNING DEPARTMENT REVIEW OF A TIER A OR TIER B PERSONAL WIRELESS SERVICE FACILITY SITE PERMIT APPLICATION.

(a) **Referral to Planning Department Required.**

(1) Until such time as the Department has adopted Objective Standards, the Department shall refer an Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit to the Planning Department for a review of the proposed Personal Wireless Service Facility under the applicable Tier A or Tier B Compatibility Standard.

(2) After the Department has adopted Objective Standards, the Department shall refer an Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit to the Planning Department for additional review under the applicable Tier A or Tier B Compatibility Standard if: (A) the proposed Personal Wireless Service Facility does not meet the Tier A or Tier B Compatibility Standard based on the Department's application of the Objective Standards; or (B) the proposed Personal Wireless Service Facility is a Disfavored Design.

(b) **Planning Department Determination.** If the Department has referred an Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit to the Planning Department, the Planning Department shall make a determination whether the Application satisfies the applicable Tier A or Tier B Compatibility Standard. The Planning Department's determination shall be in writing and shall set forth the reasons therefor. The Planning Department shall transmit its determination to the Department within 10 business days of receipt of the Application from the Department. With the concurrence of the Applicant, the Planning Department may extend this review period beyond 10 business days.

(c) **Affirmative Determination Required.** The Department shall not approve an Application for a Tier A or Tier B Personal Wireless Service Facility Site Permit that has been referred to the Planning Department unless the Planning Department makes a determination that the Application satisfies the applicable Tier A or Tier ~~*Tier*~~ B Compatibility Standard.

SEC. 1511. FINAL DETERMINATION.

(a) **Determination in Writing.** The Department's final determination to approve or deny an Application for a Personal Wireless Service Facility Site Permit shall be in writing and shall set forth the reasons therefor. If the Department's final determination to approve an Application contains any Conditions imposed by any City department that reviewed the Application, the Conditions shall also be in writing.

(b) **Denial.** The Department shall issue a final determination denying an Application for a Personal Wireless Service Facility Site Permit within three business days of any of the following events:

(1) The Department's receipt of a determination from the Department of Public Health that the Application does not satisfy the Public Health Compliance Standard;

(2) (A) The Department's determination that the Application does not meet the applicable Tier A, B, or C Compatibility Standard based on the Department's application of the Objective Standards; or (B) where applicable, the Department's receipt of a determination from the Planning Department or the Recreation and Park Department that the Application does not meet the applicable Tier A, B, or C Compatibility Standard; ~~*or*~~

(3) For an application to install a Personal Wireless Service Facility on a Stand-alone Pole, the Department's determination that: (A) the proposed location does not meet the Siting Criteria; or (B) if the proposed location is a Disfavored Location, the Applicant did not show that there is no other suitable location available in the Public Right-of-Way; or

~~*(3)*~~*(4)* If any City department reviewing the Application adds any Conditions to its approval of the Application, the Department's receipt of a notice from the Applicant that it rejects any of those Conditions.

(c) **Approval.** The Department shall issue a final approval of an Application within three business days of the occurrence of the last of the following events:

(1) The Department's receipt of a determination from the Department of Public Health that the Application complies with the Public Health Compliance Standard;

(2) (A) The Department's determination that the Application meets the applicable Tier A, B, or C Compatibility Standard based on the Department's application of the Objective Standards; or (B) where applicable, the Department's receipt of a determination from the Planning Department or the Recreation and Park Department that the Application meets the applicable Tier A, B, or C Compatibility Standard;

(3) For an application to install a Personal Wireless Service Facility on a Stand-alone Pole, the Department's determination that: (A) the proposed location meets the Sting Criteria; and (B) if the proposed location is a Disfavored Location, and the Applicant has shown that there is no other suitable location available in the Public Right-of-Way; or

~~*(3)*~~*(4)* If applicable, the Department's receipt of a notice from the Applicant that it accepts any Conditions imposed by any City department that reviewed the Application.

SEC. 1514. NOTICE OF FINAL DETERMINATION.

(a) **Notice of Approval.** The Applicant shall provide notice to the general public of a final determination to approve an Application for a Personal Wireless Service Facility Site Permit.

(1) **Types of Notice Required.**

(A) The Applicant shall promptly mail a copy of the Department's final determination to approve an Application for a Personal Wireless Service Facility Site Permit to: (i) any Person who owns property that is within 300 feet of the approved location for the Personal Wireless Service Facility; (ii) any Person who is a tenant in any residential property that is within 300 feet of the approved location for the Personal Wireless Service Facility; (iii) any neighborhood association identified by the Planning Department for any neighborhood

that is within 600 feet of the approved location for the Personal Wireless Service Facility; and (iv) the member of the Board of Supervisors who represents the district in which the approved Personal Wireless Service Facility would be located.

(B) *For a Permit to install a Personal Wireless Service Facility on a Utility Pole, the ~~The~~* Applicant shall promptly post notice of the Department's final determination to approve an Application for a Personal Wireless Service Facility Site Permit on the Utility Pole to be used for the proposed Personal Wireless Service Facility and on a minimum of four other Utility Poles, other poles, or other conspicuous places located within 300 feet of the approved location for the Personal Wireless Service Facility. The Applicant shall provide the Department with ~~*such*~~ *written proof* ~~*evidence*~~ of compliance with this requirement *including photographs of the posted notices*.

(C) For a Permit to install a Personal Wireless Service Facility on a Stand-alone Pole, the Applicant shall promptly post notice of the Department's final determination to approve an Application for a Personal Wireless Service Facility Site Permit on a temporary structure at the approved location for the proposed Personal Wireless Service Facility and on a minimum of four other Utility Poles, other poles, or other conspicuous places located within 300 feet of the approved location for the Personal Wireless Service Facility. The Applicant shall provide the Department with written proof of compliance with this requirement including photographs of the posted notices.

(2) **Contents and Form of Notice.** A notice of final determination to approve an Application for a Personal Wireless Service Facility Site Permit shall contain such information, and be in such form, as the Department reasonably requires in order to inform the general public of the approved Application. At a minimum, the notice of final determination shall:

(A) Provide a description and a photo-simulation of the approved Personal Wireless Service Facility;

(B) Summarize the determinations of the City departments that were necessary for the approval of the Application, including any Conditions added by any City departments that were accepted by the Applicant;

(C) State that any Person may file an appeal of the approval of the Application with the Board of Appeals within 15 days after the date that all notices required by Section 1514(a) above have been provided;

(D) Describe the procedure for submitting a timely appeal; *and*

(E) ~~*Specify the applicable grounds for appealing the approval of the Application set forth in Section 1530 below; and*~~

~~*(F)*~~ Explain how any interested Person may obtain additional information and documents related to the Permit.

(b) **Notice of Denial.** The Department shall provide notice of a final determination to deny an Application for a Personal Wireless Service Facilities Site Permit.

(1) **Type of Notice Required.** The Department shall promptly mail a notice of final determination to deny an Application for a Personal Wireless Service Facility Site Permit to the Applicant.

(2) **Contents of Notice.** A notice of final determination to deny an Application for a Personal Wireless Service Facility Site Permit shall at a minimum:

(A) Summarize the determinations of any City departments that were necessary for the denial of the Application, including any Conditions added by any City departments that were rejected by the Applicant~~.~~;

(B) State that the Applicant may file an appeal of the denial of the Application with the Board of Appeals within 15 days of the Department's mailing of the notice~~.~~; *and*

(C) Describe the procedure for submitting a timely appeal~~.~~; ~~*and*~~

~~*(D) Specify the applicable grounds for appealing the approval of the Application set forth in Section 1530 below.*~~

SEC. 1521. REPLACEMENT OR REMOVAL OF EQUIPMENT.

(a) Replacement. During the term of a Personal Wireless Service Facility Site Permit, a Permittee may Replace equipment that is part of a permitted Personal Wireless Service Facility without obtaining a Modification Permit.

(b) Removal. During the term of a Personal Wireless Service Facility Site Permit, a Permittee may remove equipment that is part of a permitted Personal Wireless Service Facility without obtaining a Modification Permit.

(c) Department Procedures.

(1) Permittee's Notification. A Permittee shall notify the Department in writing that it intends to Replace or remove equipment at a permitted Personal Wireless Service Facility as permitted by this Section 1521. In the notice, the Permittee shall at a minimum:

(A) Identify the use and size of each piece of equipment that the Permittee is seeking to remove from the Utility Pole *or Stand-alone Pole*;

(B) Identify the use and size of the equipment that the Permittee is seeking to install on the Utility Pole *or Stand-alone Pole* to Replace existing equipment; and

(C) If any new equipment will Replace existing equipment, provide drawings and photo-simulations of the existing and new equipment the Permittee is seeking to install on the Utility Pole *or Stand-alone Pole*.

(2) **Department Notification.** Within five ~~*(5)*~~ business days of receipt of the Permittee's request to Replace or remove equipment as described above, the Department shall notify the Permittee in writing whether the Department has determined that the request complies with the requirements of this Section 1521.

(3) **Permittee Replacement or Removal.** Upon receipt of a Department notice that the request complies with this Section 1521, the Permittee may Replace or remove the equipment identified in the request.

(4) **Compliance with Other Requirements.** Nothing in this Section 1521 shall be construed to relieve the Permittee of its duty to comply with any City regulations or permitting requirements when removing equipment from or Replacing Equipment on a Utility Pole *or Stand-alone Pole*.

SEC. 1522. MODIFICATION PERMIT.

(a) **Modification Permit Required.** A Permittee seeking to add equipment to a permitted Personal Wireless Service Facility that does not comply with the requirements of Section 1521 above, because the replacement equipment is not ~~*is*~~ identical in size or smaller than the previously permitted equipment, must obtain a Modification Permit.

(b) **Department Procedures.**

(1) **Application.** In an Application for a Modification Permit, the Applicant shall at a minimum:

(A) State whether the permitted Personal Wireless Service Facility is a Base Station;

(B) Identify the use and size of any piece of equipment that the Applicant is seeking to remove from the Utility Pole *or Stand-alone Pole*;

(C) Identify the use and size of any equipment that the Applicant is seeking to add to the Utility Pole *or Stand-alone Pole*;

(D) State whether any piece of equipment the Applicant is seeking to add to the Utility Pole *or Stand-alone Pole* is Transmission Equipment and, if so, explain why it meets the definition of Transmission Equipment;

(E) Provide drawings and photo-simulations of the existing and new equipment the Permittee is seeking to install on the Utility Pole *or Stand-alone Pole*; and

(F) State whether the proposed modification will result in a Substantial Change to the Physical Dimensions of the Utility Pole *or Stand-alone Pole*.

(2) **Time for Department Determination.** The Department shall by order or regulation establish the appropriate time frame for the Department to review an Application for a Modification Permit that is consistent with the requirements of Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, codified at 47 U.S.C. § 1455(a), as may be amended from time to time, and with any FCC decision addressing that section or any FCC regulation implementing that section.

(c) **Approval of Modification Permits at Base Stations.**

(1) **No Substantial Change to the Physical Dimension.** The Department shall approve an Eligible Facilities Request for a Modification Permit if the installation of the modified Transmission Equipment would not Substantially Change the Physical Dimensions of the Utility Pole *or Stand-alone Pole* where the permitted Base Station equipment has been installed.

(2) **Substantial Change to the Physical Dimensions.** The Department may approve an Eligible Facilities Request for a Modification Permit if the installation of the modified Transmission Equipment would Substantially Change the Physical Dimensions of the Utility Pole *or Stand-alone Pole* where the permitted Base Station equipment has been installed, provided the Application complies with the requirements of Section 1522(e)(2) below.

(3) **Equipment Other than Transmission Equipment.** The Department may approve an Application for a Modification Permit at a Personal Wireless Service Facility that is a Base Station if the Application seeks to modify equipment other than Transmission

Equipment, provided the Application complies with the requirements of Section 1522(e)(2) below.

(d) **Approval of Modification Permits at Other Types of Facilities.** The Department may approve an Application for a Modification Permit at a Personal Wireless Service Facility that is not a Base Station, provided the Application complies with the requirements of Section 1522(e)(2) below.

(e) **Applicability of Other Provisions of this Article.**

(1) **No Substantial Change to the Physical Dimension.** The other provisions of this Article 25 related to approval of an Application for a Personal Wireless Service Facility Site Permit shall not apply to the Department's review of an Application for a Modification Permit that complies with the requirements of Section 1522(c)(1) above. These provisions include, but are not limited to, Notice of Final Determination (Section 1514 above) and Appeals (Section 1515 above).

(2) **Other Types of Modifications.** Before approving an Application for a Modification Permit under Sections 1522(c)(2), (c)(3), and (d) above, the Department shall refer the Application to: (A) the Department of Public Health to determine compliance with the Public Health Compliance Standard; and (B) the Planning Department and/or Recreation and Park Department to determine compliance with any applicable Compatibility Standards. The Department may not approve the Modification Permit if any City department determines the Application does not comply with the appropriate standard. In addition, the Department may determine that compliance with other provisions of this Article 25, including Notice of Final Determination (Section 1514 above) and Appeals (Section 1515 above), shall be required.

(f) **Generally Applicable Laws.** Nothing in this Section 1522 shall prohibit the Department from denying an Application for a Modification Permit (even where the Application consists of an Eligible Facilities Request) where the Department determines that the proposed

modified Personal Wireless Service Facility would violate any generally applicable building, structural, electrical, or safety code provision, or any Applicable Law codifying objective standards reasonably related to health and safety.

Section 2. Effective Date. This ordinance shall become effective 30 days after enactment. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board of Supervisors overrides the Mayor's veto of the ordinance.

Section 3. Scope of Ordinance. In enacting this ordinance, the Board of Supervisors intends to amend only those words, phrases, paragraphs, subsections, sections, articles, numbers, punctuation marks, charts, diagrams, or any other constituent parts of the Municipal Code that are explicitly shown in this ordinance as additions, deletions, Board amendment additions, and Board amendment deletions in accordance with the "Note" that appears under the official title of the ordinance.

APPROVED AS TO FORM:
DENNIS J. HERRERA, City Attorney

By: /s/
WILLIAM K. SANDERS
Deputy City Attorney

n:\legana\as2021\2100306\01522525.docx

Exhibit E: Legislative Digest

FILE NO. 210328

LEGISLATIVE DIGEST

[Public Works Code - Personal Wireless Service Facility Site Permits]

Ordinance amending the Public Works Code to authorize the Department of Public Works to issue Personal Wireless Service Facility Site Permits to install Personal Wireless Service Facilities on stand-alone poles; and making certain corrections to other provisions.

Existing Law

Under Article 25 of the Public Works Code, Public Works may issue permits to allow telecommunications providers to install Personal Wireless Service Facilities on existing utility poles in the public right-of-way.

Amendments to Current Law

The proposed ordinance would authorize Public Works to issue Personal Wireless Service Facility Site Permits ("Permits") to allow telecommunications providers to install Personal Wireless Service Facilities on stand-alone poles in public right-of-ways with existing overhead utility facilities when those existing overhead utility facilities cannot be used for safety reasons. The proposed ordinance would also establish placement and siting criteria to ensure, among other things, that stand-alone poles would not: (i) incommode the public's use of the public right-way; (ii) impact streets where the City has completed, or has plans, for major capital improvements, including streetscape and pedestrian safety improvement; (iii) require the removal of special paving or other special design features; (iv) impact streets that the City has plans to underground in the immediate future; or (v) be installed too close to one another.

Background Information

Wireless carriers seeking to deploy 5G are experiencing obstacles installing new Personal Wireless Service Facilities on existing utility poles as permitted by Article 25 of the Public Works Code. Recently, Pacific Gas and Electric Company ("PG&E") has imposed new pole safety standards that prohibit wireless carriers from using many of PG&E's poles to install Personal Wireless Service Facilities. While these carriers could install their facilities on poles owned by the Public Utilities Commission and Municipal Transportation Agency, on many streets where the utility facilities are aboveground there are only PG&E poles. For this reason, on streets where PG&E has notified carriers that its poles are unavailable, the carriers are unable to install Personal Wireless Service Facilities in the public right-of-way.

Public Works has started receiving applications for Permits to install Personal Wireless Service Facilities on stand-alone poles. To date, Public Works has not issued any Permits for

use of stand-alone poles, because Article 25 does to authorize Public Works to issue Permits to install Personal Wireless Service Facilities on stand-alone poles.

n:\legana\as2021\2100306\01515919.docx