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February 28, 2013

VIA EMAIL AND FEDEX

Chair Doreen Farr
Vice Chair Salud Carbajal
Supervisors Janet Wolf,
Peter Adam and Steve Lavagnino
Board of Supervisors
Santa Barbara County
105 East Anapamu Street
Santa Barbara, California 93109

Re: Appeal Case No. 12APL-00000-00011
Verizon Wireless Stealth Communications Facility
512 Santa Angela Lane, Montecito
Board of Supervisors Agenda March 12, 2013

Dear Chair Farr, Vice Chair Carbajal and Supervisors:

We write to you again on behalf of our client Verizon Wireless to encourage you to affirm the well-reasoned and unanimous decision by the Montecito Planning Commission on May 23, 2012 to approve the above-captioned fully-screened rooftop collocation facility at 512 Santa Angela Lane (the "Approved Facility") and to reject the appeal by Mary Goolsby and Martha Kay (the "Appellants").[1] At this Board's direction, Verizon Wireless will install the alternative treepole design at 512 Santa Angela Lane to be heard on March 4, 2013 by the Montecito Board of Architectural Review (the "MBAR"), provided there is no delay in final action on this application by the County.

It is apparent from statements by Appellants and the community before this Board that Appellants' grounds for appeal are ultimately based upon concerns regarding the environmental effects of radio frequency emissions. As stated in our prior correspondence, federal law preempts the Board from granting the appeal on such grounds. Nevertheless, since the day that this Board first heard this appeal, August 21, 2012, Verizon Wireless has worked diligently with Appellants to identify an alternative that would resolve Appellants' concerns. Verizon Wireless believes it has achieved that result by proposing a treepole design at the site of the Approved Facility. Verizon

[1] We have previously provided extensive legal analysis to this Board through letters dated August 8, 2012 and October 3, 2012. We briefly restate those legal arguments here and, for brevity, hereby incorporate the citations and codes set forth in our prior correspondence.

Wireless has thoroughly reevaluated 19 alternatives and confirmed that the Approved Facility is the least intrusive under the Montecito Land Use & Development Code (the "Code") to provide service to the undisputed coverage gap that has resulted from the November 2012 decommissioning of the Verizon Wireless Ortega Hill Road facility. To avoid conflict with federal law and to avoid disruption of critical wireless service to Montecito residents, we encourage the Board to act immediately to affirm placement of a Verizon Wireless facility with or without a treepole at 512 Santa Angela Lane in Montecito.

I. The Project

The Approved Facility consists of nine new Verizon Wireless panel antennas located behind a radio-frequency ("RF")-transparent parapet on top of an existing Verizon building that currently supports three AT&T antennas. Verizon Wireless radio equipment will be located in a new prefabricated shelter located in the building's parking lot, shielded from Santa Angela Lane by a vegetated block wall and connected by underground coaxial cables to the building on which the antennas are to be mounted. The Verizon building has operated under an approved landscape plan which has resulted in mature vegetation that completely screens the block wall surrounding the parking lot, eliminating any aesthetic or acoustic impacts from the facility. Photographs of the Approved Facility are attached as Exhibit A. The Statement of Hammett & Edison, Inc., Consulting Engineers, Sound Levels Study, August 20, 2012 is attached as Exhibit B (the "H&E Acoustic Report").

As an accommodation to Appellants, Verizon Wireless prepared plans and submitted an application to the MBAR for a 75-foot treepole at the site of the Approved Facility to accommodate Verizon Wireless and AT&T antennas. This design received favorable comment at the MBAR meeting of February 11, 2013 and will receive preliminary review by the MBAR at their March 4, 2013 meeting. A photosimulation of the proposed treepole at the Approved Facility location is attached as Exhibit C (the "Approved Site Treepole Design").

II. Federal Law

Our prior letters explain the manner in which federal law limits the County's authority to deny the Approved Facility. A summary of these limitations is as follows:

A. Any Denial of an Application Must Be in Writing and Supported by Substantial Evidence Contained in a Written Record. (47 U.S.C. §332(c)(7)(B)(iii))

Verizon Wireless has submitted substantial evidence for approval, including photographs demonstrating no aesthetic impact; the H&E Acoustic Report showing

compliance with applicable noise standards; the Statement of Hammett & Edison, Inc., Consulting Engineers, Emissions Study, dated August 10, 2012 confirming compliance with Federal Communications Commission ("FCC") guidelines (the "H&E RF Study", attached as Exhibit D); and text messages and emails from 275 residents confirming the need to maintain reliable Verizon Wireless service in Montecito.[2] In contrast, Appellants raise only procedural arguments in their appeal and fail to submit any evidence, let alone the substantial evidence of adverse impacts from the site required under 47 U.S.C. §332(c)(7)(B)(iii), to justify granting the appeal.

B. The County may not Unreasonably Discriminate among Providers of Functionally Equivalent Services. (47 U.S.C. §332(c)(7)(B)(i)(I))

Granting of the appeal and prohibiting collocation on the existing AT&T facility location would plainly constitute unlawful discrimination against Verizon Wireless under 47 U.S.C. §332(c)(7)(B)(i)(I). The County of Santa Barbara granted approval to the existing AT&T facility in 2004. The impacts from the existing AT&T facility are negligible as the antennas are fully screened behind a parapet and the radio equipment shelter is located behind a landscaped block wall. The Approved Facility will similarly add antennas fully screened behind the same parapet and an equipment shelter placed behind the same landscaped block wall. Under the circumstances, where the Approved Facility is clearly "similarly situated" to the approved AT&T facility, approval of the Approved Facility avoids it from being "treated differently" than the AT&T facility and avoids discrimination under 47 U.S.C. §332(c)(7)(B)(i)(I).[3]

C. The Local Government May *Not* Regulate the Placement, Construction or Modification of Wireless Communication Facilities on the Basis of the Environmental Effects of Radio Frequency Emissions to the Extent Such Facilities Comply with the FCC's Regulations Concerning Such Emissions. (47 U.S.C. §332(c)(7)(B)(iv))

The H&E RF Study submitted by Verizon Wireless confirms compliance with FCC emissions guidelines that would make granting of the appeal based upon Appellants' stated health and property value concerns a clear violation of 47 U.S.C. §332(c)(7)(B)(iv).[4] As noted, Verizon Wireless has taken the extraordinary step of

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[2] Evidence of the 275 customer text and email messages confirming the need for continuing reliable Verizon Wireless service in Montecito was included in our prior correspondence and is incorporated herein by reference.

[3] *See Metro PCS, Inc. v. City and County of San Francisco,* 400 F.3d 715, 727 (9th Cir. 2005) ("…[F]ederal courts considering such cases have ruled that providers alleging unreasonable discrimination must show that they have been treated differently from other providers whose facilities are 'similarly situated'.")

[4] The courts have made clear that federal law preempts any local decision based on the alleged health or environmental effects of RF emissions, even when such arguments are cloaked in the guise of other purported concerns (such as alleged impacts on property values). *See e.g., AT&T Wireless Services of California LLC v. City of Carlsbad*, 308 F.Supp.2d 1148, 1159 (S.D. Cal. 2003) (concerns regarding property values were a proxy for issues related to RF emissions and could not justify denial). *See also*

proposing an alternative "treepole" design to further minimize emissions from the Approved Facility. An analysis showing that cumulative emissions from the Approved Site Treepole Design would be more than 50 times below permitted emissions under FCC guidelines appears as Attachment B to the Alternatives Analysis.

D. The Local Government's Decision Must Not "Prohibit or Have the Effect of Prohibiting the Provision of Personal Wireless Services". (47 U.S.C. §332(c)(7)(B)(i)(II))

Under federal law, a prohibition of service claim arises where a wireless provider has demonstrated that there is a significant gap in coverage and that the facility proposed is the least intrusive means of providing service to that gap. The significant gap in coverage created by the decommissioning of Verizon Wireless's Ortega Hill Road facility is documented by the Statement of the Verizon Wireless Radio Frequency Design Engineer (which appears as Attachment A to the Alternatives Analysis). The 19-site Alternatives Analysis developed by Verizon Wireless over the last six years that has been re-reviewed and reanalyzed by Verizon Wireless in cooperation with Appellants over the last six months to fully evaluate all theoretically possible alternatives (attached as Exhibit E) again confirms that the Approved Facility is the least intrusive means to provide wireless service to the identified significant gap. Taken together, the Radio Frequency Design Engineer's statement and the Alternatives Analysis provide incontrovertible evidence that granting of the appeal would constitute a prohibition of service to an undisputed significant gap in Verizon Wireless's Montecito network, in clear violation of 47 U.S.C. §332(c)(7)(B)(i)(II).

E. The Local Government Must Act on a Permit Application within a Reasonable Period of Time. (47 U.S.C. §332(c)(7)(B)(ii))

In a 2009 declaratory ruling (commonly known as the "Shot Clock Ruling"), the FCC established a legal presumption that a local government has violated the requirement to act within a reasonable period of time if it takes longer than 90 days to take final action on an application to install a collocation wireless facility.[5] Under the Shot Clock Ruling, the reasonable period for the County to act on the Approved Facility expired on June 27, 2012. By letter agreements dated June 14, 2012, August 29, 2012, October 5, 2012, November 8, 2012 and February 1, 2013, Verizon Wireless and the County mutually agreed to extend the deadline for the County to act under the Shot Clock Ruling to March 21, 2013. These extraordinary extensions have required Verizon Wireless to install temporary facilities at the site of the Approved Facility in order to avoid interruption of wireless services to Montecito. Verizon Wireless's temporary permit expires May 1, 2013 and further extension of the deadline for the county to take final action on the

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California RSA No. 4 d/b/a Verizon Wireless v. Madera County, 332 F.Supp.2d 1291 (E.D. Cal. 2003) (property value evidence found to be a proxy for radiofrequency emission concern).

[5] *See In Re: Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review, Etc.,* FCC 09-99 (FCC November 18, 2009) (the "Ruling").

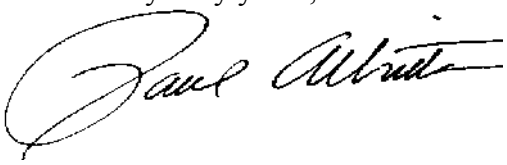
Approved Facility runs afoul of the federal requirement for timely action on wireless facility applications.

Conclusion

For the last six years, Verizon Wireless worked diligently to prepare for the loss of its facility that operated for the last quarter century on Ortega Hill Road. The Montecito Planning Commission's approval of the Approved Facility over nine months ago had avoided the present emergency circumstance. However, Appellants' subsequent appeal and Verizon Wireless's agreement to extend federally-mandated deadlines to accommodate this Board's thorough review of the appeal, including the re-review of all available alternatives over the last six months, has led to the current urgency. Verizon Wireless's Ortega Hill Road facility was decommissioned in November 2012 and Verizon Wireless has been forced to provide service only through temporary facilities parked at the site of the approved location.

It is time for the County to take final action in order to comply with federal law and its own Code by approving the entirely screened collocation facility proposed by Verizon Wireless. If preferred by this Board, the Approved Site Treepole Design should be approved as a modification of the Approved Facility application to avoid unreasonable delay under federal law.

Very truly yours,



Paul B. Albritton

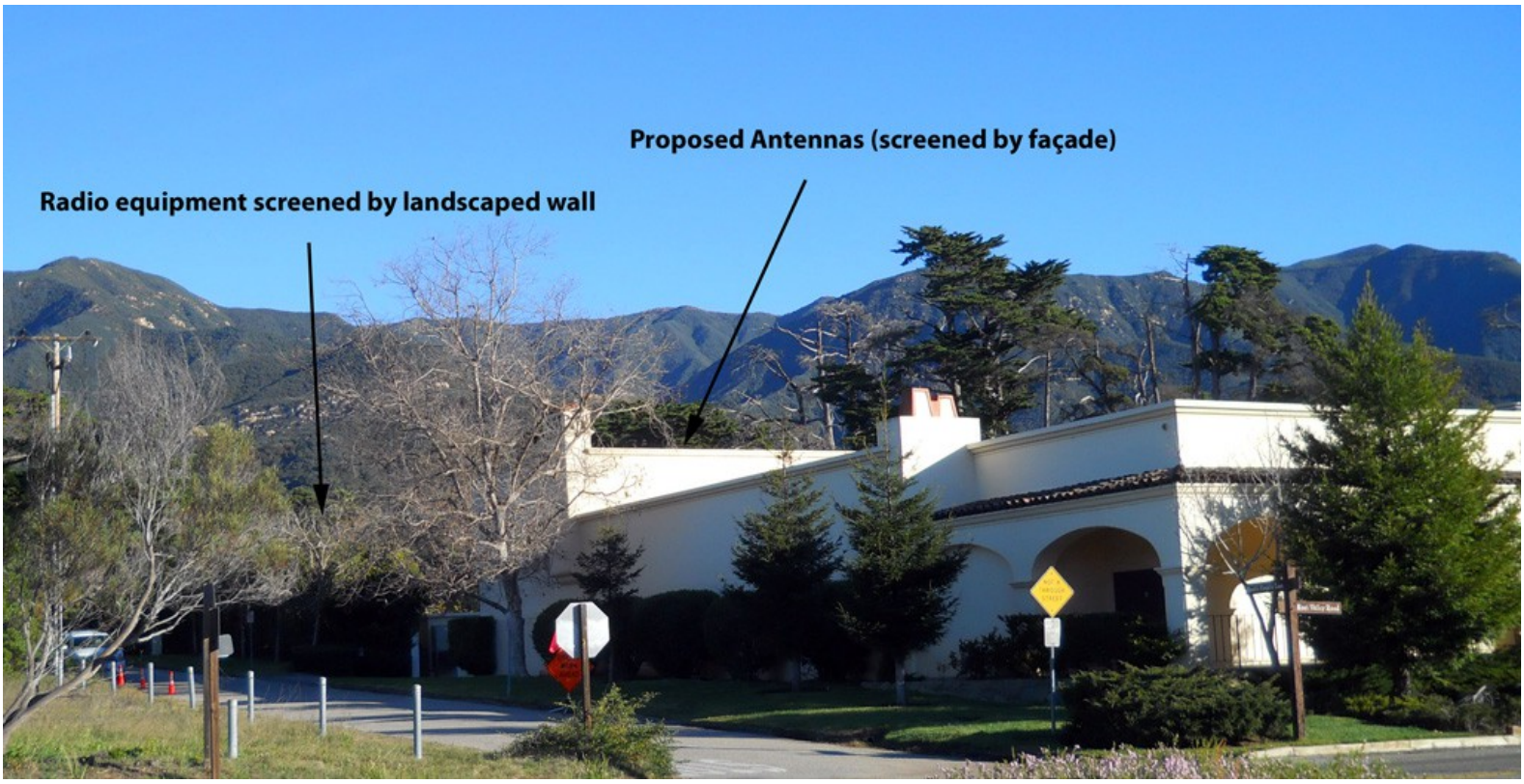
cc: Rachel Van Mullem, Esq., Chief Deputy County Counsel
Michael Ghizzoni, Chief Assistant County Counsel
Megan Lowery, Planner
Anne Almy, Supervising Planner

Schedule of Exhibits

Exhibit A: Photographs of the Approved Facility
Exhibit B: Statement of Hammett & Edison, Inc., Consulting Engineers, Sound Levels Study, August 20, 2012
Exhibit C: Photosimulations of Approved Site Treepole Design
Exhibit D: Statement of Hammett & Edison, Inc., Consulting Engineers, RF Study, August 10, 2012
Exhibit E: Alternatives Analysis

Exhibit A

Photograph of the Approved Facility viewed from the southwest



Photograph of the Approved Facility viewed from the northwest

Verizon Wireless • Proposed Base Station (Site No. 115535 "Montecito Relo")
512 Santa Angela Lane • Montecito, California

Exhibit B

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 telecommunications carrier, to evaluate its base station (Site No. 115535 "Montecito Relo") proposed to be located on 512 Santa Angela Lane in Montecito, California, for compliance with appropriate guidelines limiting sound levels from the installation.

Executive Summary

Verizon proposes to install a new wireless telecommunications base station at 512 Santa Angela Lane in Montecito, to include an equipment shelter cooled by two air conditioning units. Noise levels from the equipment operations will be below the acoustical noise limits.

Prevailing Standard

The County of Santa Barbara sets forth limits on sound levels its Comprehensive Plan. The "Conclusions and Recommendations" section in the Noise Element of that plan establishes a maximum exterior noise level of 65 dBA, for noise sensitive land uses such as residential areas. It is the composite "day-night" measure L_{dn} that is referenced for this evaluation; that measure incorporates a 10 dBA penalty during nighttime hours (10 p.m. to 7 a.m.), to reflect typical residential conditions, where noise is more readily heard at night. A noise level expressed in L_{dn} is, by definition, 6.4 dBA higher than the continuous equivalent level L_{eq} averaged over the same 24-hour period. For the purposes of this study, noise levels are conservatively calculated at the property lines of nearby parcels.

Figure 1 attached describes the calculation methodology used to determine applicable noise levels for evaluation against the prevailing standard.

General Facility Requirements

Wireless telecommunications facilities ("cell sites") typically consist of two distinct parts: the electronic base transceiver stations ("BTS" or "cabinets") that are connected to traditional wired telephone lines, and the antennas that send wireless signals created by the BTS out to be received by individual subscriber units. The BTS are often located outdoors at ground level and are connected to the antennas by coaxial cables. The BTS typically require environmental units to cool the electronics inside. Such cooling is often integrated into the BTS, although external air conditioning may be installed, especially when the BTS are housed within a larger enclosure.

Most cell sites have back-up battery power available, to run the site for some number of hours in the event of a power outage. Many sites have back-up power generators installed, to run the site during an extended power outage.

Site & Facility Description

According to information provided by Verizon, including drawings by SAC Wireless, dated March 29, 2012, that carrier proposes to install an equipment shelter sited at the northwest corner of the parking lot behind the single-story Verizon switch building located at 512 Santa Angela Lane in Montecito. Two air conditioning units, assumed for the purposes of this study to be Bard Model WA4S1, would cool the equipment in the proposed shelter. Such air conditioners are typically installed as a pair for redundancy, and alternate their operation so that both do not operate simultaneously. Presently located to the south of the proposed Verizon equipment shelter is a similar shelter for use by AT&T Mobility.

Located above the roof of the switch building are directional panel antennas for the AT&T operation, and Verizon also proposes to locate similar antennas above the same roof; however, that portion of the facilities does not generate acoustical energy.

The property line to the nearest neighboring parcel is located to the north of the Verizon shelter, at a distance of at least 47 feet from the Verizon equipment. The property lines in the other directions are located at greater distances.

Study Results

Bard reports that the maximum noise level from the air conditioning units is 65 dBA, measured at a reference distance of 10 feet. The maximum calculated noise level at the nearest property line for the operation of the Verizon air conditioning units is 50.1 dBA, or 56.5 dBA L_{dn}, which is 8.5 dBA below the maximum level allowed by the County of Santa Barbara, conservatively assuming continuous operation of the air conditioning.

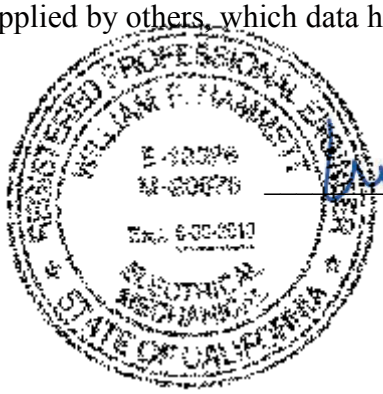
While the installed facilities of the AT&T operation are not known, the acoustic noise levels calculated for the Verizon installation are some seven times below the allowable noise limit. For this reason, it is expected that the combined noise levels from the Verizon and AT&T facilities, as well as any other noise sources at the site, together will comply with the County's noise limit.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that the Verizon Wireless base station proposed to be located at 512 Santa Angela Lane in Montecito, California, will comply with the Santa Barbara County standard limiting acoustic noise levels.

Authorship

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, 2013. 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.

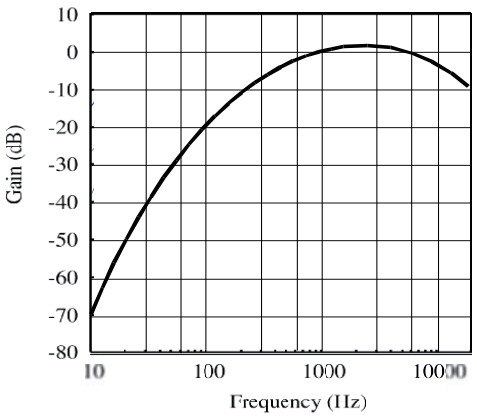


William F. Hammett, P.E.
707/996-5200

August 20, 2012

Noise Level Calculation Methodology

Most municipalities and other agencies specify noise limits in units of dBA, which is intended to mimic the reduced receptivity of the human ear to Sound Pressure ("L_P") at particularly low or high frequencies. This frequency-sensitive filter shape, shown in the graph to the right as defined in the International Electrotechnical Commission Standard No. 179, the American National Standards Institute Standard No. 5.1, and various other standards, is also incorporated into most calibrated field test equipment for measuring noise levels.



30 dBA	library
40 dBA	rural background
50 dBA	office space
60 dBA	conversation
70 dBA	car radio
80 dBA	traffic corner
90 dBA	lawnmower

The dBA units of measure are referenced to a pressure of 20 µPa (micropascals), which is the threshold of normal hearing. Although noise levels vary greatly by location and noise source, representative levels are shown in the box to the left.

Manufacturers of many types of equipment, such as air conditioners, generators, and telecommunications devices, often test their products in various configurations to determine the acoustical emissions at certain distances. This data, normally expressed in dBA at a known reference distance, can be used to determine the corresponding sound pressure level at any particular distance, such as at a nearby building or property line. The sound pressure drops as the square of the increase in distance, according to the formula:

$$L_P = L_K + 20 \log(D_K/D_P),$$

where L_P is the sound pressure level at distance D_p and L_K is the known sound pressure level at distance D_K.

Individual sound pressure levels at a particular point from several different noise sources cannot be combined directly in units of dBA. Rather, the units need to be converted to scalar sound intensity units in order to be added together, then converted back to decibel units, according to the formula:

where L_T is the total sound pressure level and L_1, L_2, etc are individual sound pressure levels.

$$L_T = 10 \log \left(10^{L_1/10} + 10^{L_2/10} + \ldots\right),$$

Certain equipment installations may include the placement of barriers and/or absorptive materials to reduce transmission of noise beyond the site. Noise Reduction Coefficients ("NRC") are published for many different materials, expressed as unitless power factors, with 0 being perfect reflection and 1 being perfect absorption. Unpainted concrete block, for instance, can have an NRC as high as 0.35. However, a barrier's effectiveness depends on its specific configuration, as well as the materials used and their surface treatment.

VICINITY MAP
PHOTOSIMULATION VIEWPOINTS

verizon wireless

MONTECITO - VZW SWITCH
PSL# 115535
512 SANTA ANGELA
MONTECITO, CA 93108

SAC WIRELESS
5865 AVENIDA ENCINAS, STE. 142B
CARLSBAD, CA 92008
OFFICE: (760) 795-5200

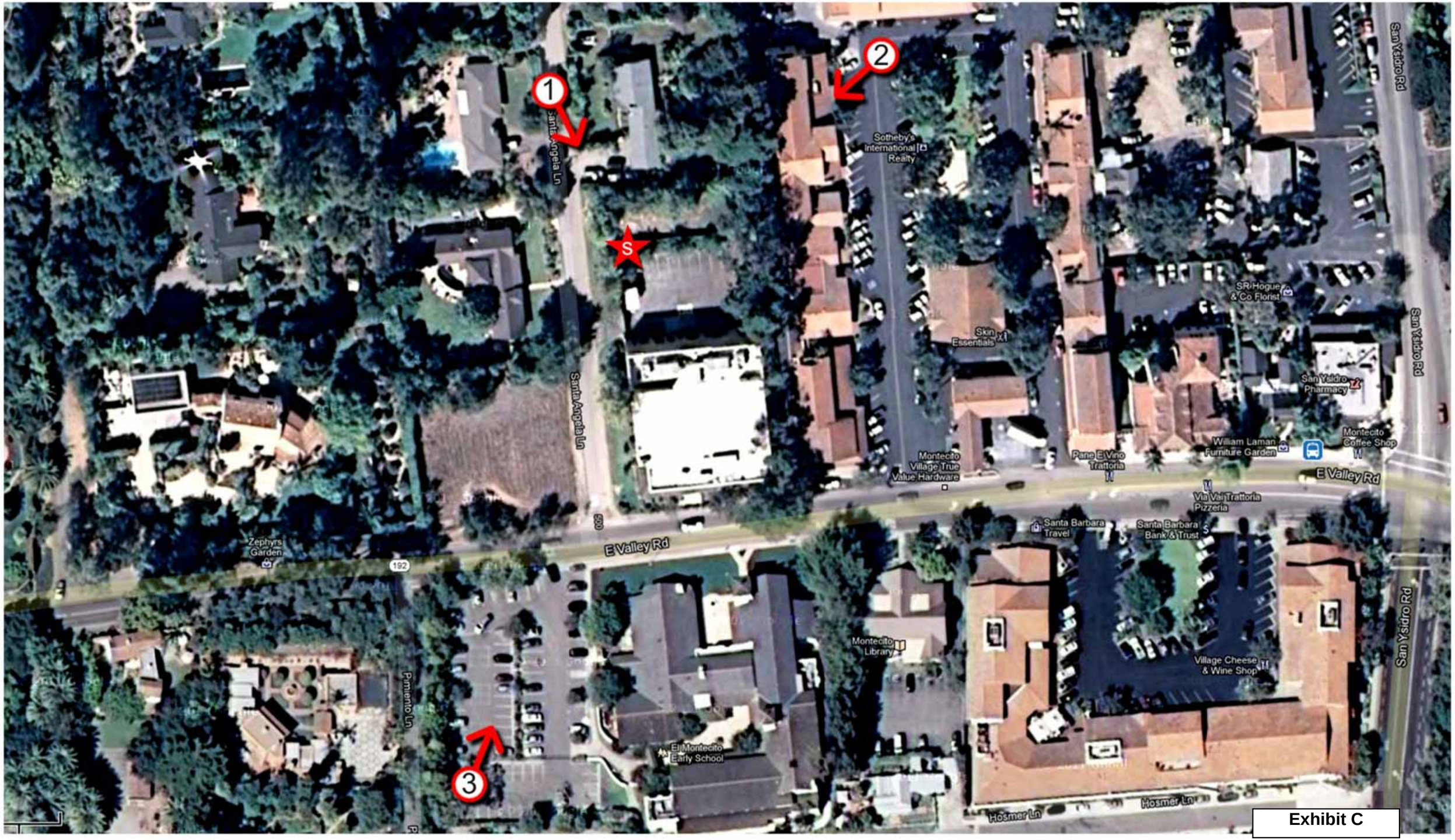


Exhibit C

PHOTOSIMULATION VIEW 1

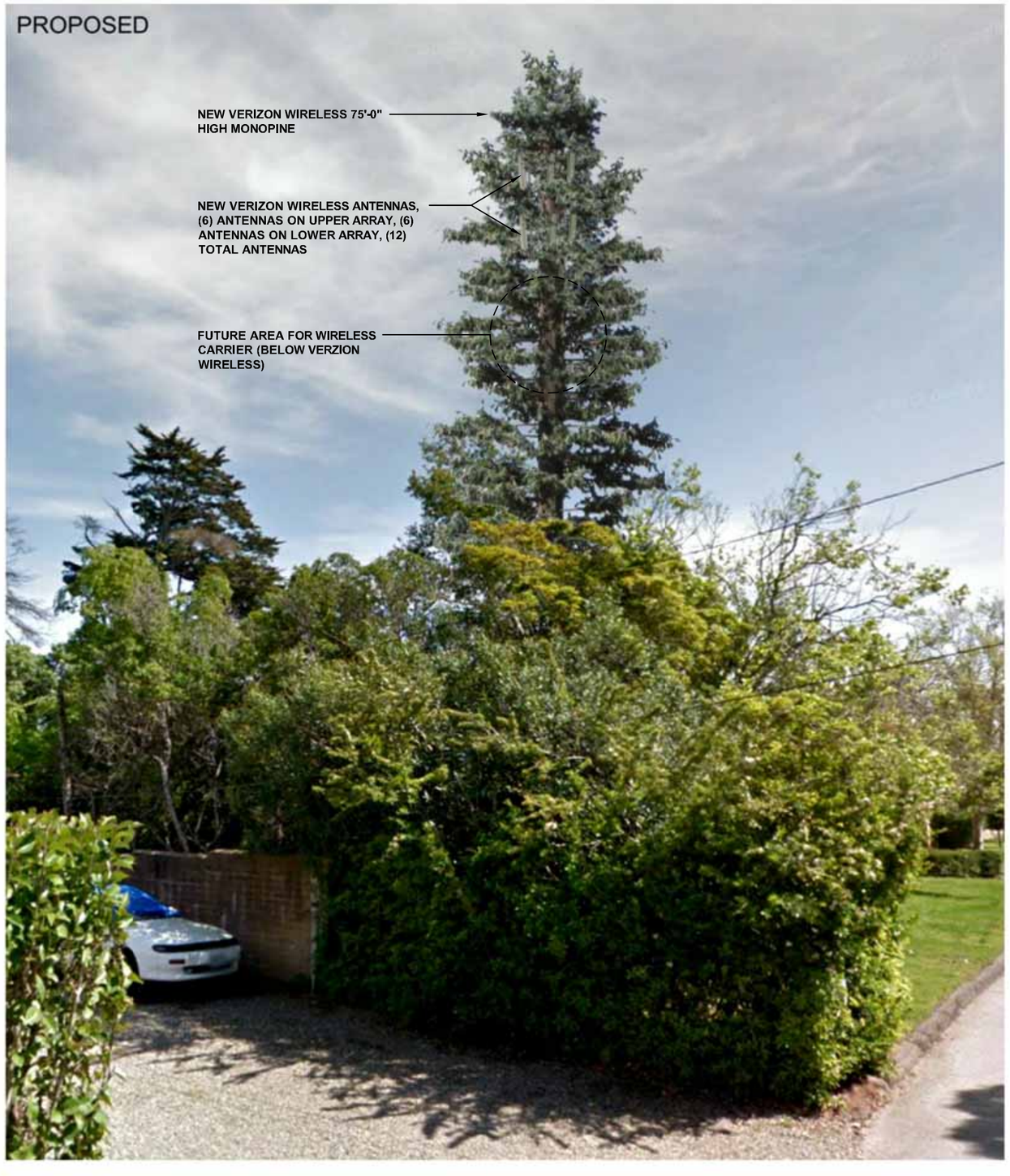
verizon wireless

MONTECITO - VZW SWITCH
PSL# 115535
512 SANTA ANGELA
MONTECITO, CA 93108

SAC WIRELESS
5865 AVENIDA ENCINAS, STE. 142B
CARLSBAD, CA 92008
OFFICE: (760) 795-5200

EXISTING

PROPOSED



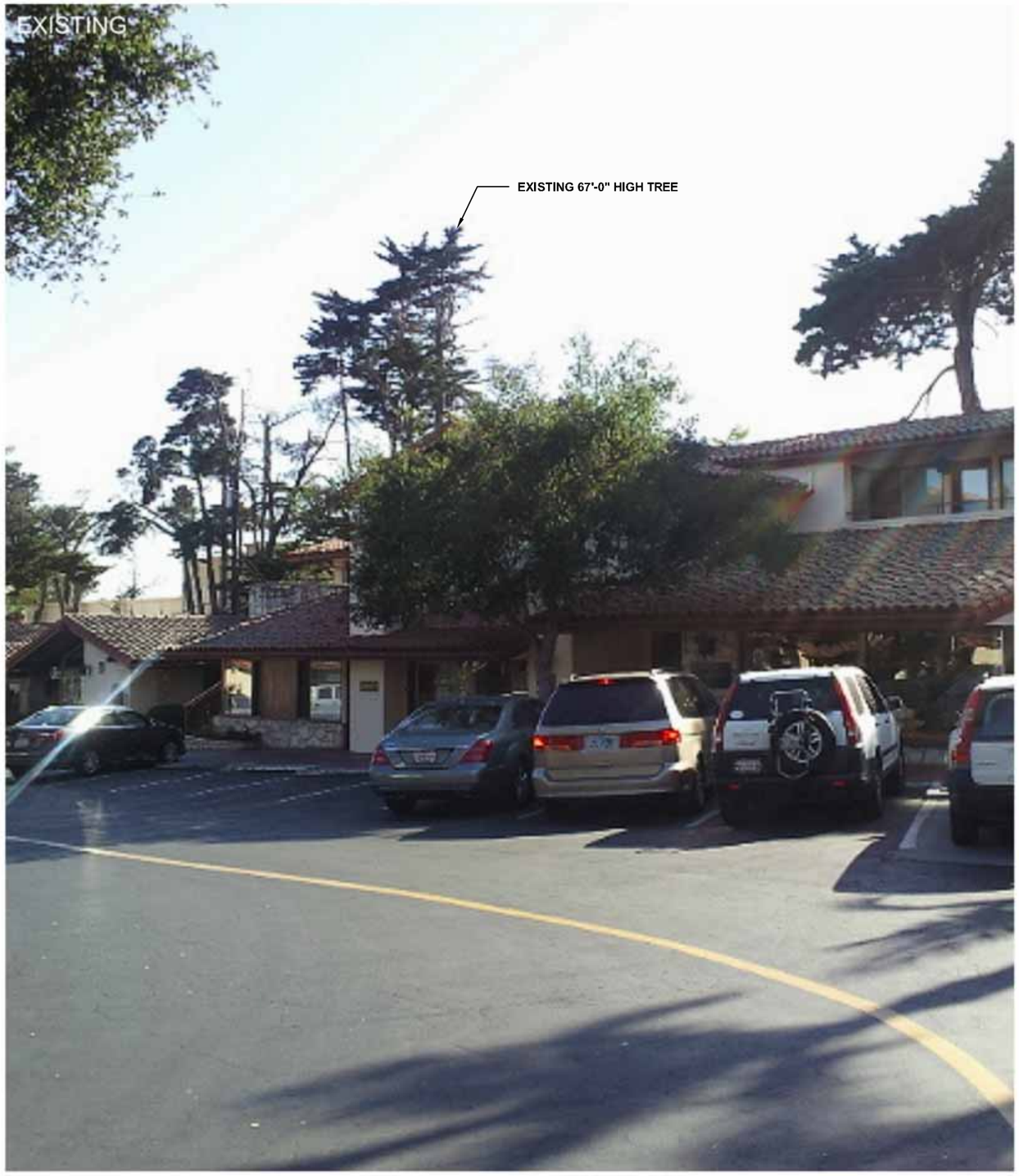
verizonwireless

MONTECITO - VZW SWITCH
PSL# 115535
512 SANTA ANGELA
MONTECITO, CA 93108

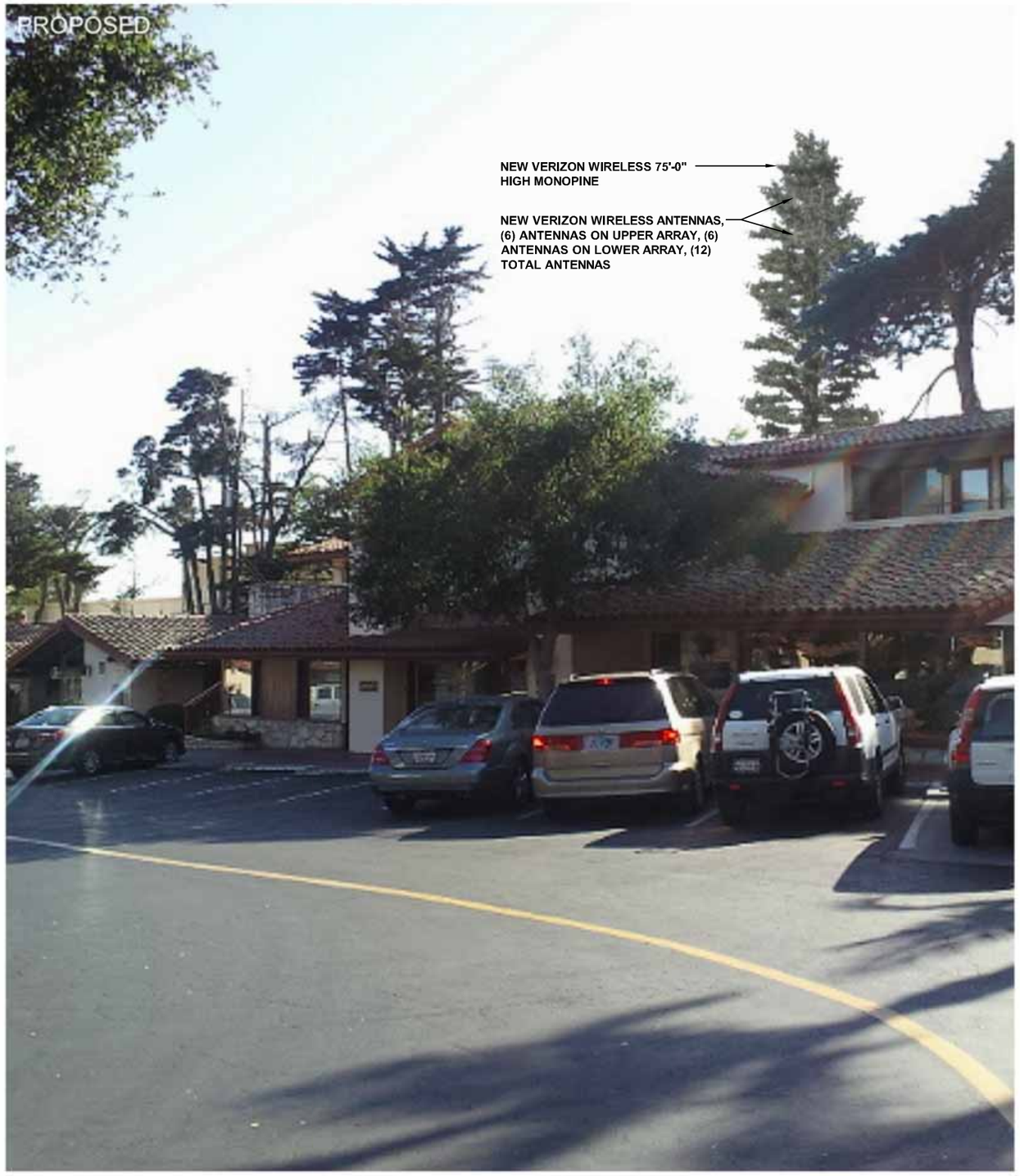
SAC WIRELESS
5865 AVENIDA ENCINAS, STE. 142B
CARLSBAD, CA 92008
OFFICE: (760) 795-5200

PHOTOSIMULATION VIEW 2

EXISTING



PROPOSED



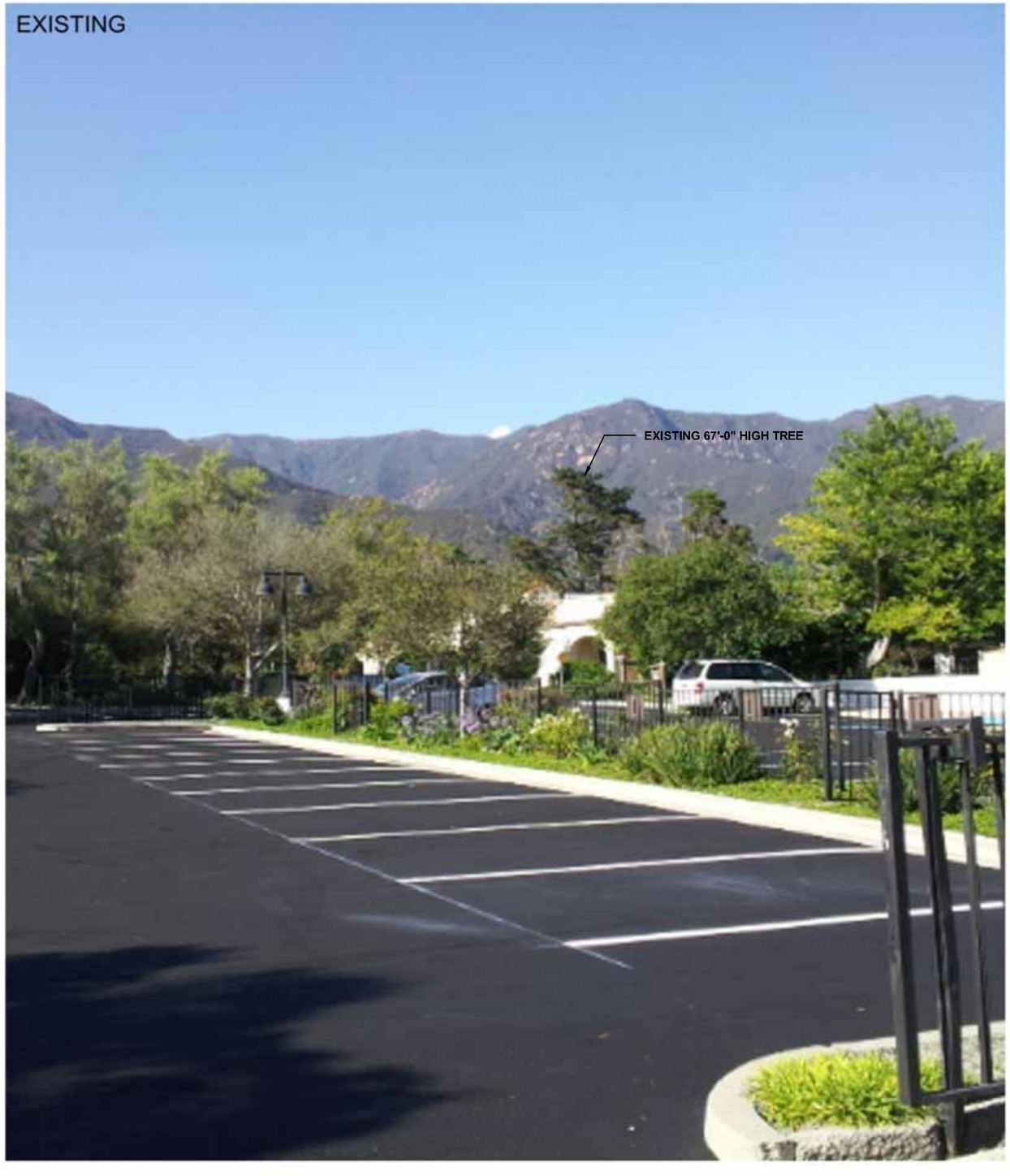
verizon wireless

MONTECITO - VZW SWITCH
PSL# 115535
512 SANTA ANGELA
MONTECITO, CA 93108

SAC WIRELESS
5865 AVENIDA ENCINAS, STE. 142B
CARLSBAD, CA 92008
OFFICE: (760) 795-5200

PHOTOSIMULATION VIEW 3

EXISTING



PROPOSED

Verizon Wireless • Proposed Base Station (Site No. 115535 "Montecito RELO")
512 Santa Angela Lane • Montecito, California

Exhibit D

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 the base station (Site No. 115535 "Montecito RELO") proposed to be located at 512 Santa Angela Lane in Montecito, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas above the roof of the single-story telephone switch building located at 512 Santa Angela Lane in Montecito. The proposed operation will, together with the existing base station at the site, comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5,000–80,000 MHz	5.00 mW/cm^2	1.00 mW/cm^2
BRS (Broadband Radio)	2,600	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky.

Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 attached 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"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

The site at 512 Santa Angela Lane in Montecito was visited by Mr. Kent A. Swisher, a qualified engineer employed by Hammett & Edison, Inc., during normal business hours on March 9, 2012. There were observed antennas for use by AT&T installed on the single-story Verizon switch building. The maximum power density level observed for a person at ground near the site was 0.0048 mW/cm^2, which is 2.4% of the most restrictive public limit, for the combined operation of the existing RF services at the site as installed and operating at that time. The location of this and other representative measured levels are shown in Figure 3. The measurement equipment used was a Wandel & Goltermann Type EMR-300 Radiation Meter with Type 18 Isotropic Electric Field Probe (Serial No. F-0034). The meter and probe were under current calibration by the manufacturer.

Based upon information provided by Verizon, including zoning drawings by SAC Wireless, dated February 20, 2012, it is proposed to install nine Andrew directional panel antennas – three Model HBXX-6516DS-VTM and six Model LNX-6513DS-VTM – behind the existing screen wall above the roof of the building. The antennas would be mounted with no downtilt at an effective height of about 21 feet above ground, 4 feet above the roof, and would be oriented in identical groups of three toward 120°T, 220°T, and 310°T, away from the building. The maximum effective radiated power in any direction would be 4,910 watts, representing simultaneous operation at 1,900 watts for PCS, 2,520 watts for cellular, and 490 watts for 700 MHz service.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation by itself is calculated to be 0.051 mW/cm^2, which is 9.0% of the applicable public exposure limit. The maximum calculated cumulative level at ground, for the simultaneous operation of both carriers, is projected to be 9.5% of the public exposure limit, since the maximum levels from the two carriers' operations do not coincide. The location of this and other representative calculated cumulative exposure levels are shown in Figure 3. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels. Levels may exceed the applicable public exposure limit on the roof of the subject building, near the antennas.

Recommended Mitigation Measures

Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within 14 feet directly in front of the antennas themselves, such as might occur during maintenance work on the roof or screen wall, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Posting explanatory warning signs* at the roof access hatch and on the screens in front of the antennas, such that the signs would be readily visible from any angle of approach to persons who might need to work within that distance, would be sufficient to meet FCC-adopted guidelines. Similar measures should already be in place for the other carrier at the site; the applicable keep-back distance for that carrier has not been determined as part of this study.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless at 512 Santa Angela Lane in Montecito, 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 base stations. Posting explanatory signs is recommended to establish compliance with occupational exposure limitations.

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* Warning 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, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.

Authorship

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, 2013. 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.

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

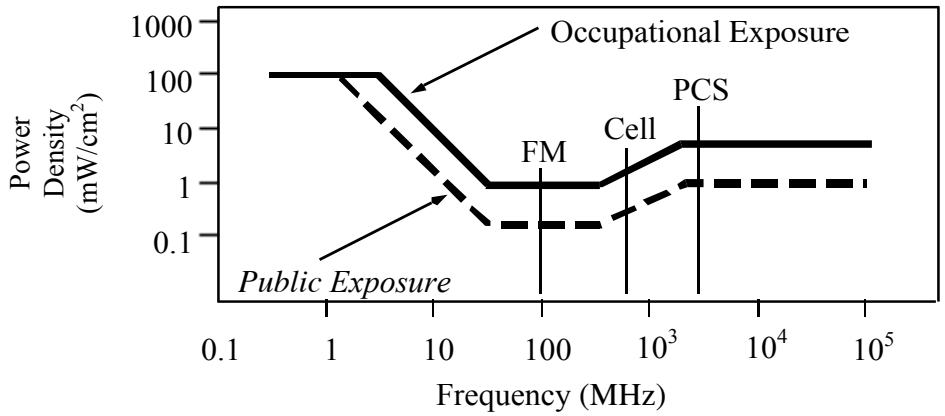
August 10, 2012

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 built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

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 the antenna, in degrees, and
P_{net} = net power input to the antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of the 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:

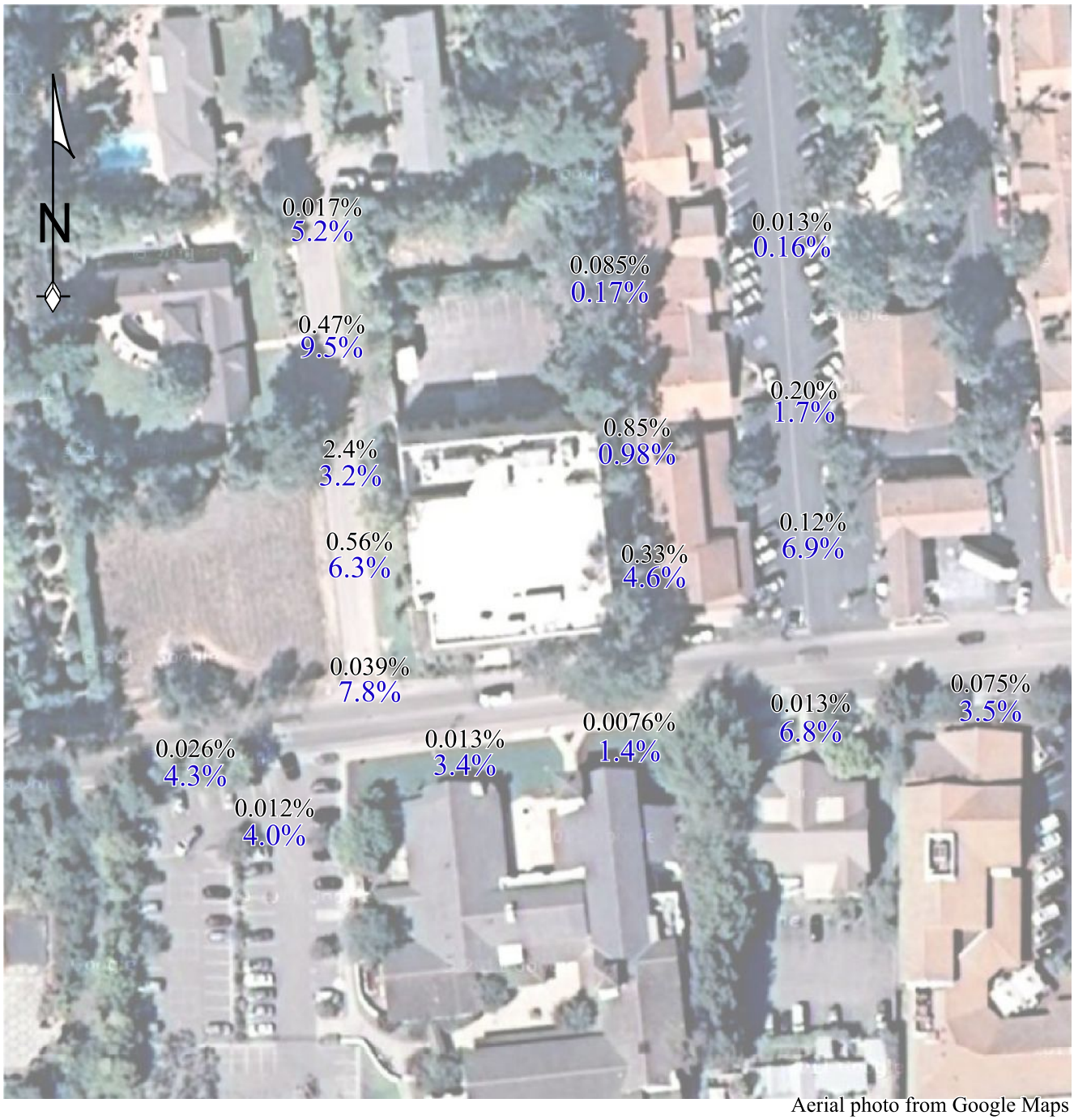
power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the 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 has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

Verizon Wireless • Proposed Base Station (Site No. 115535 "Montecito RELO")
512 Santa Angela Lane • Montecito, California

Representative Ambient Measurements and Calculated Exposure Levels



Aerial photo from Google Maps

RF exposure levels measured on March 9, 2012, (shown in black as percent of most restrictive public limit); maximum was 2.4%. Calculated cumulative levels including the existing AT&T operations shown in blue; maximum is 9.5% of public limit (see text for details).

Exhibit E

Alternatives Analysis

Verizon Wireless
Montecito
512 Santa Angela Lane

February 28, 2013
REVISED

Summary of Site Evaluations
Conducted by SAC Wireless

Compiled by Mackenzie & Albritton LLP

TABLE OF CONTENTS

I. Executive Summary

In November 2012, Verizon Wireless was forced to decommission its facility on Ortega Hill Road after 25 years of service. The decommissioning of this site has created a significant gap in Verizon Wireless service. The significant gap created in Montecito Village is currently being served by a temporary facility installed at 512 Santa Angela Lane, the site for Verizon Wireless's proposed permanent facility. The permit for the temporary facility is set to expire in May of this year. The significant gap includes significant commercial and residential areas of Montecito as well as County roadways and two highways. Based on an extensive review of available sites over the last six years, including a thorough re-review of available sites following Montecito Planning Commission approval of the proposed facility at 512 Santa Angela Lane (the "Approved Facility"), Verizon Wireless continues to believe that the proposed collocation of antennas on an existing Verizon switch building constitutes the least intrusive alternative to help fill the identified coverage gap based on the values expressed in the Montecito Land Use & Development Code (the "Code"). Verizon Wireless's re-review of alternatives over the last six months was extremely comprehensive and thorough. All seven alternatives included in the August analysis were reevaluated, in addition to 12 new potential alternatives. Multiple radio frequency emissions reports were generated, as well as title reports, surveys and countless contacts and correspondence with potential landlords. As a result of Verizon Wireless's reanalysis and based upon input from the parties who have appealed the Approved Facility to the Board of Supervisors ("Appellants"), Verizon Wireless has proposed the use of a camouflage treepole at the approved site location that is described in this Alternatives Analysis and would be acceptable to Verizon Wireless.

II. Coverage Gap

Verizon Wireless Performance Engineers have determined that there will be a significant gap in coverage in the Montecito area following decommissioning of the temporary facility. The gap would extend from Highway 101 on the south to Las Padres National Forest on the north, bordered on the east by Ortega Ridge Road and on the west by Sycamore Canyon Road (the "Coverage Gap"). The Coverage Gap is more fully described in the Statement of Verizon Wireless Radio Frequency Design Engineer Dewayne Bonham dated August 8, 2012 attached as **Attachment A**.

III. Methodology

Once a coverage gap has been determined, Verizon Wireless seeks to identify a proposal that will provide coverage through the "least intrusive means" based upon the values expressed by local regulation. In addition to seeking the "least intrusive" alternative, sites proposed by Verizon Wireless must be feasible. In this regard, Verizon Wireless reviews the topography, radio frequency propagation, elevation, height, available electrical and telephone utilities, access, and other critical factors such as a willing landlord in completing its site analysis. Wherever feasible, Verizon Wireless seeks to identify collocation opportunities that allow placement of wireless facilities with minimal impacts.

The Code establishes the priority for wireless facility design and location in Montecito. Under the development standards, collocation on existing structures is required where available with only certain exceptions. See Code §35.44.010(D)(2)(c). The Code places the highest priority on certain temporary facilities, small facilities or hub sites and facilities in nonresidential zones through administrative procedures. A Conditional Use Permit is required to place new facilities in non-residential zones, except where collocated, or where height limits and a 300 foot residential setback are met. See generally Code §§35.44.010(C)(1) through (3). The Code specifically provides for facilities in residential zones with a Conditional Use Permit under Code §35.44.010(C)(4)(a) subject to development standards provided under Code §35.444.010(D). Additional development standards clearly favor sites that do not disrupt scenic view corridors and that minimize aesthetic impacts through screening and camouflage. Based upon these site location and design preferences established in the Code, the methodology employed by Verizon Wireless first looked for opportunities to collocate on existing wireless facility structures in Montecito. In response to County and community requests, Verizon Wireless then evaluated available structures for placement of its wireless facility. Finally, based upon Appellants' request, Verizon Wireless evaluated raw land locations for the placement of a new cell tower in Montecito.

IV. Analysis

For the last six years, Verizon Wireless has sought to identify a suitable location for its wireless facility to serve Montecito. As collocation of facilities is generally required where available under Code §35.444.010(D)(2)(c), Verizon Wireless sought collocation sites which could provide radio frequency propagation to the Coverage Gap. In addition to the former site at QAD Inc., three such collocation sites were found, two located in public utilities zoning district and another located on a residentially-zoned parcel with a long-established telecommunications use where two designs have been considered. Additionally, while they are not collocations, 14 additional sites were considered that are located in both residential and non-residential areas which could potentially provide radio frequency propagation to the Coverage Gap.

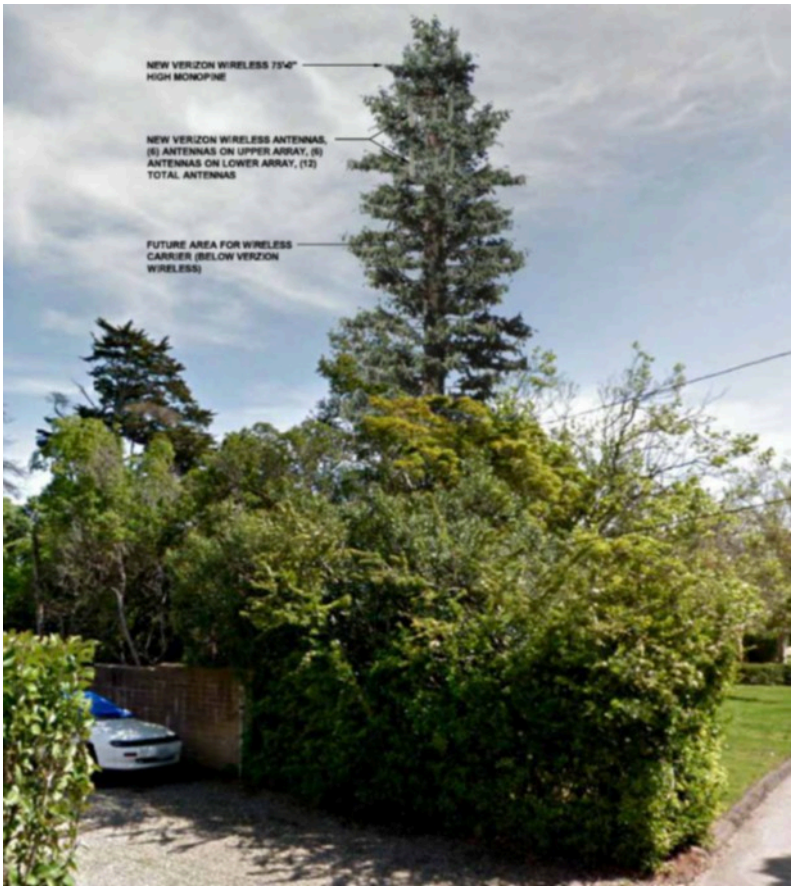
Collocation Sites

Except in very unique circumstances, such as temporary facilities or hub sites, the Code first requires collocation on existing structures. Verizon Wireless identified five collocation options which could serve the Coverage Gap, one of which has been decommissioned and only one of which creates no visual impacts, as detailed below.

1. Verizon Building (Approved Facility)
512 Santa Angela Lane
Elevation: 215 feet
Zoning: 20-R-1

This Verizon building has been used as a telephone switch serving Montecito customers since 1965 and has supported an AT&T wireless facility since 2004. Verizon Wireless selected this site for its facility because it is the only collocation opportunity on an existing structure which can serve the Coverage Gap and also creates no visual impacts. The Verizon building already supports architectural features that will fully screen Verizon Wireless's antennas. An RF-transparent parapet that has long hidden the existing AT&T antennas, along with an identical replacement parapet to the south, will conceal Verizon Wireless's antennas from any public view. Similarly, a concrete block wall that surrounds the building's parking lot (and is also covered with mature vegetation) will screen the new Verizon Wireless radio equipment shelter from view from Santa Angela Lane. A third-party acoustic report confirms that Verizon Wireless equipment placement behind the block wall limits noise from the facility to more than seven times below County noise standards. This collocation opportunity does not create any new antenna structure. Because the placement of the facility on the Verizon building accords with the Code preference for collocation facilities on existing structures, is fully screened from any public view and contributes no aesthetic or noise impacts to the community, it is the least intrusive means to provide service to this area of Montecito under the Code.

2. Verizon Building (Treepole Design)
512 Santa Angela Lane
Elevation: 215 feet
Zoning: 20-R-1



Photosimulation of Verizon Wireless facility with treepole design 512 Santa Angela Lane

In an effort to accommodate community concerns, Verizon Wireless has investigated placement of a 75 foot treepole at the rear of the Verizon switch site. A 75 foot treepole would accommodate an antenna centerline of approximately 65 feet. Additionally, existing AT&T antennas on the switch building could be relocated to the treepole and accommodate future upgrades. The benefit of such a design will be that, overall, radio frequency emissions from the facility will be reduced at ground level nearby. A radio frequency emissions report for such a theoretical treepole was prepared by Hammett & Edison, Inc., Consulting Engineers (the "H&E Treepole Report") and is attached to this Alternatives Analysis as **Attachment B**. According to the H&E Treepole Report, cumulative radio frequency emissions at ground level would be 0.65% of the applicable public limit and at the second-floor elevation of any nearby building would be 1.9% of the applicable public limit. Though antennas would be camouflaged, a 75 foot treepole at this location would present additional visual impacts as it is not a collocation on an existing structure. As a result, this design was conceptually presented to the Montecito Board of Architectural Review on February 11, 2013. Having received

conceptual approval, the formal application for this design will be heard by the Montecito Board of Architectural Review on March 4, 2013. Results of this review will be available to the Board of Supervisors at their March 12, 2013 hearing.

3. QAD Inc.
Ortega Hill Road
Elevation: 215 Feet
Zoning: M-RP

In correspondence received from QAD Inc. on August 20, 2012, QAD fully rejected Verizon Wireless's request to extend their lease for a nominal 36 months. In his letter, attached as **Attachment C**, QAD Administrative Services Director Kent Harris stated that "Verizon's request to further extend the cell tower lease for up to thirty-six months is unreasonable and will not be entertained by QAD." Instead, QAD agreed to extend Verizon Wireless's lease for two months subject to certain conditions. In extending the lease for two months, QAD confirmed that the lease would not be further extended and that Verizon Wireless would be subject to penalties commencing January 1, 2013. Based on this correspondence, Verizon Wireless has confirmed that the QAD Ortega Hill Road site location cannot serve as a permanent site for Verizon Wireless's facility serving Montecito. In November 2012, Verizon Wireless decommissioned its site at this location and QAD is no longer a collocation alternative for Verizon Wireless.

4. Montecito Water District
583 San Ysidro Road
Elevation: 230 feet
Zoning: PU

The Montecito Water District office is located on a three acre parcel one-tenth of a mile northeast of the Approved Facility and 15 feet higher in elevation, and it is the site of a small antenna mast which hosts Montecito Water District and Montecito Fire Protection District antennas. Collocation of Verizon Wireless antennas at this site would require replacement of the existing slender mast with a monopole capable of holding Verizon Wireless panel antennas and tall enough to create necessary radio frequency separation to avoid interference with existing antennas. In addition, a 250 square foot radio equipment shelter would have to be located on the property. Because collocation of the Verizon Wireless facility at the Montecito Water District office would create visual impacts from a new monopole and equipment structure, it is a less preferred alternative to the Approved Facility which is collocated on the existing Verizon switch building and creates no visual impacts.

Notwithstanding the need for a new antenna structure at this location, Verizon Wireless entered into lease negotiations with the Montecito Water District in 2007. Ultimately, the Water District was not a willing landlord at that time. In August 2012, Verizon Wireless re-initiated negotiations with the Water District; however, at the written recommendation of staff and the General Manager, the Board of Directors ultimately unanimously rejected Verizon Wireless's proposal at their meeting of November 20, 2012. An excerpt of the Water District Board minutes of November 20, 2012 reflecting the unanimous decision to reject a wireless facility is shown on the following page. Lacking a willing landlord, this is an infeasible alternative location for Verizon Wireless's facility.

Mr. Mosby presented this report to the Board.

9. DISTRICT OPERATIONS REPORT

A. 2012/13 WATER SUPPLY REPORT

Mr. Mosby presented this report and answered Directors' questions.

B. EASEMENT FOR EXISTING WATER LINE ON SAN LEANDRO LANE (LOT LINE ADJUSTMENT BY CRANE COUNTRY DAY SCHOOL)

Mr. Meier presented this item and answered Directors' questions. Following discussion, it was moved by Director Shaikewitz, seconded by Director Morgan, and unanimously carried to accept the grant of easement from the Crane Country Day School to the District, as described in the easement documents, and authorize the Board President to execute the Grant of Easement Document and return the signed document to Crane Country Day School for recording.

C. CONSIDERATION OF VERIZON CELL SITE, DISTRICT OFFICE, 583 SAN YSIDRO ROAD

Mr. Mosby presented this item and answered Directors' questions. Following discussion, it was moved by Director Shaikewitz, seconded by Director Bierig, and unanimously carried to reject Verizon's proposal to locate a cellular communication facility on District property at 583 San Ysidro Road based on legal counsel's recommendation and concern for the health and safety of the staff.

D. WATER WORKS OPERATION REPORT

Mr. Mosby presented this report and answered Directors' questions.

10. GENERAL MANAGER'S REPORT

A. MONTHLY OPERATIONS REPORT (ORAL)

Mr. Mosby and Mr. Meier reported on District projects and activities not covered elsewhere in the agenda.

5. Montecito Fire Protection District
595 San Ysidro Road
Elevation: 240 feet
Zoning: PU

In 2007, Verizon Wireless investigated placement of its wireless facility on the Montecito Fire Protection District headquarters, located 0.2 miles northeast of the Approved Facility and 25 higher in elevation. In early communications with Verizon Wireless representatives, the Fire Protection District firmly confirmed through communications from Operations Chief Terry McElwee that there was no interest in placing a Verizon Wireless facility on the headquarters building and that the Fire Protection District would be an unwilling landlord. In its current effort to revisit alternatives, Verizon Wireless representative Jay Higgins spoke with Fire Chief Chip Hickman and Operations Chief McElwee on August 14, 2012, both of whom reconfirmed the Fire Protection District's lack of interest in leasing to Verizon Wireless. Correspondence from Fire Chief Hickman received on October 2, 2012 and shown on the following page confirmed that the Fire Protection District is not interested in leasing space for Verizon Wireless's facility. The Montecito Fire Protection District headquarters remains an infeasible alternative due to an unwilling landlord. Note that while this location may qualify as a collocation on an existing structure under the Code, Verizon Wireless has been unable to confirm that antennas could be mounted on the existing structure on the site due to lack of access.

From: Chip Hickman
Sent: Tuesday, October 02, 2012 3:37 PM
To: Jay Higgins
Subject: RE: verizon wireless upper village

Jay,
You are correct, the district is not interested in leasing space for the reasons you have stated.
Sincerely,

Chip Hickman
Fire Chief
Montecito Fire Protection District

Non-Collocation Sites

Notwithstanding Code requirements that prefer collocation of facilities, Verizon Wireless investigated 14 non-collocation sites which could provide sufficient radio frequency propagation to the Coverage Gap.

6. Montecito Village Shopping Center
East Valley Road
Elevation: 210 feet
Zoning: CN

The Montecito Village Shopping Center is located due east of the Approved Facility and five feet less in elevation. The 3.3 acre shopping center is composed of numerous buildings designed in the Spanish Colonial Revival architectural style with distinctive tiled and sloping rooftops. Installation of antennas on these buildings would require alterations to accommodate antennas at a sufficient height for radio frequency propagation, disrupting the uniform style adopted for Montecito's commercial development. Recent correspondence from the property owner, Valley Improvement Company, indicated a complete lack of interest in pursing an agreement for a wireless facility on this property (see fax on following page). Lacking a willing landlord, this is an infeasible alternative location for Verizon Wireless's facility.

VALLEY IMPROVEMENT COMPANY
POBOX 5670, Santa Barbara, CA 93150
1482 East Valley Road, Studios No. 19 & 20
Phone 805 969-3711 |
Fax 805 969-9002
E-mail: valley.improvement@verizon.net

fax

TO: David Mebane

FROM: C. Norman Borgatello, President
Valley Improvement Co.

FAX: 805 456-2096

PAGES: 2 (including cover sheet)

PHONE 805 962-6562

DATE: 4/8/2011

RE: Verizon Wireless

☐ Urgent For Review Please Comment ☐ Please Reply X For Information

Mr. Mebane:

At this time Valley Improvement Company is not interested in pursuing a site.

Respectfully,

By

C. Norman Borgatello, President

7. Commercial Office / Retail Center
1485 East Valley Road
Elevation: 200 Feet
Zoning: CN

This commercial development is located 450 feet east of the Approved Facility and five feet less in elevation. Similar to the nearby shopping center, the buildings are designed in a distinctive architectural style with a parking lot and landscape features. Installation of antennas on these buildings would require alterations to accommodate antennas at a sufficient height for radio frequency propagation. Recent correspondence from the property owner, Valley Improvement Company, indicated a complete lack of interest in pursing an agreement for a wireless facility on this property (see fax on Page 14). Lacking a willing landlord, this is an infeasible alternative location for Verizon Wireless's facility.

8. Valley Improvement Company Parking Lot
East Valley Road
Elevation: 225 Feet
Zoning: CN

This commercial property is located 500 feet northeast of the Approved Facility and 10 feet higher in elevation. This property, owned by Valley Improvement Company, serves as a parking lot for the company's adjacent commercial development. Installation of a wireless facility at this location would require a monopole and equipment shelter that would necessitate elimination of parking spaces which cannot be relinquished. Recent correspondence from the property owner, Valley Improvement Company, indicated a complete lack of interest in pursing an agreement for a wireless facility on this property (see fax on Page 14). Lacking a willing landlord, this is an infeasible alternative location for Verizon Wireless's facility.

9. The Old Firehouse
1486 East Valley Road
Elevation: 200 feet
Zoning: CN

This historic landmark is situated some 15 feet lower in elevation and 400 feet east of the Approved Facility and recently underwent historic renovation as a bank. The building's most prominent feature is a tower that was originally used for drying cloth-covered fire hoses. While the top of the tower structure might provide sufficient height for Verizon Wireless's antennas, it would not be possible to place the antennas in the tower without obstructing the open air arches and altering the tower's historical character. In addition, Verizon Wireless review of this site revealed a lack of available space to accommodate Verizon Wireless radio equipment. This lack of available space was recently confirmed by the owner representative for the property, indicating that inadequate space was available for Verizon Wireless to lease for its facility. A copy of the owner representative correspondence is shown on the following page. Lacking a willing landlord, this is an infeasible alternative location for Verizon Wireless's facility.

From: Katie Hay
Sent: Thursday, August 23, 2012 4:49 PM
To: Jay Higgins
Cc: Rebecca Ingram; David Hay
Subject: Re: 1486 east valley road

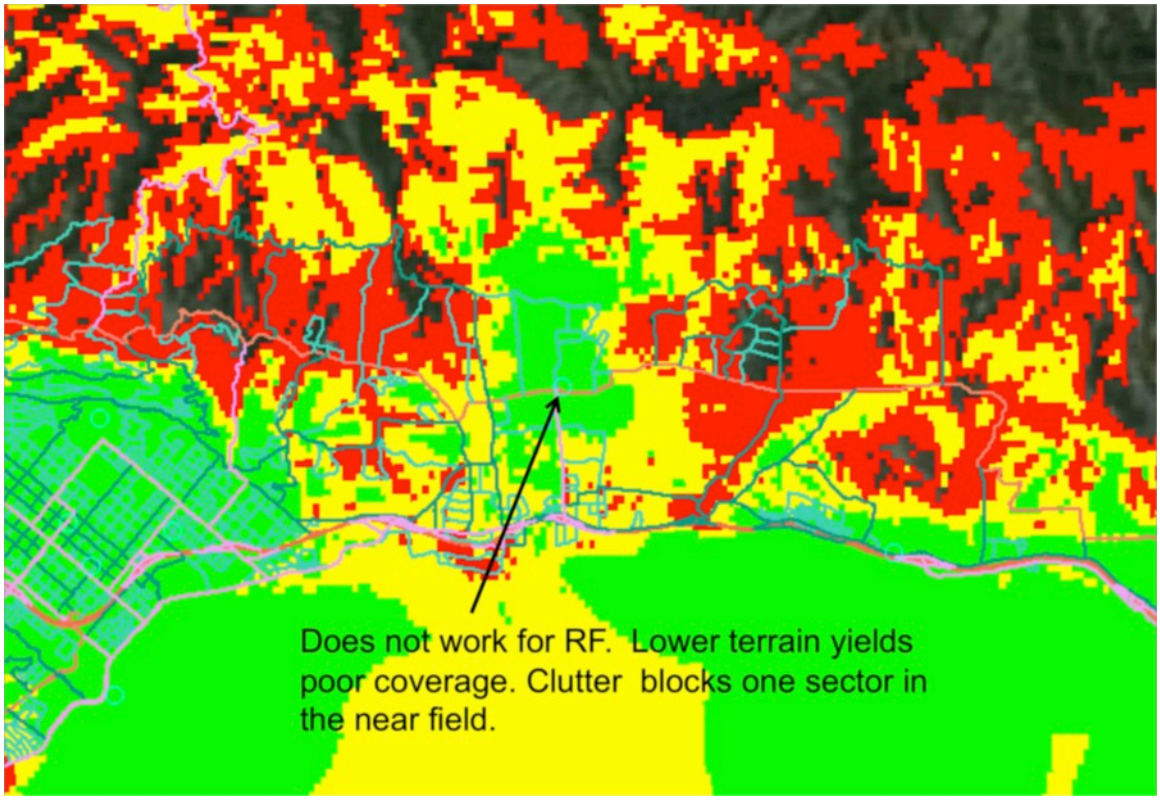
Hi Mr. Higgins -
Given your requirements outlined below, we do not have sufficient space to accommodate such equipment at this property.

If I come across another suitable property, I will be sure to forward it to your attention.

Best regards,
Katie Hay
Central Coast Real Estate, LLC

10. Pierre Lafond
516 San Ysidro Road
Elevation: 200 Feet
Zoning: CN

This two-story commercial building is located east of the Approved Facility at 15 feet less in elevation. As a result of the location of this alternative with respect to the Coverage Gap area and its lower elevation, this site does not provide line-of-sight signal propagation to the western and southern portions of the Coverage Gap. Most importantly, this location will not provide service to a significant section of Highway 101 to the south. A propagation map showing the coverage deficiencies of this location is shown on the following page.



Coverage map for Pierre Lafond location

11. Gunner Property
527 San Ysidro Road
Elevation: 200 feet
Zoning: CN

This new commercial property is located some 15 feet lower in elevation and 500 feet east of the Approved Facility. A wireless facility at this location would require the addition of a cupola or chimney-like structure to elevate antennas and cannot rely on placement of antennas on the existing structure. In multiple discussions with the property owner, Verizon Wireless was unable to secure interest in placement of a wireless facility at this location. Leasing agreements for this new development require full building premises and are not favorable for wireless facilities which require a smaller (600 square foot) premises and therefore a sublease from a whole building master tenant. According to the landlord, Verizon Wireless lease requirements are not consistent with the leasing strategy, anticipated tenant mix and architecture of this new commercial development. Correspondence confirming Verizon Wireless's communications with the landlord, Mr. Gunner, spanning August 2012 to February 2013, is shown on the following two pages. Lacking a willing landlord, this is not a suitable alternative location for Verizon Wireless's facility.

From: Jay Higgins
Sent: Wednesday, February 27, 2013 6:55 PM
To: 'gafresno@gunnerandandros.com'
Subject: RE: pharmacy parce in upper village, montecito, ca for verizon wireless (apn 011-200-183)

Hello Mr. Gunner,

We are at the end of our due diligence period to select a property in Montecito. I just wanted to confirm you disinterest. Or if you have an interest, would you please let me know by responding to the terms proposed?

Jay

From: Jay Higgins
Sent: Tuesday, February 19, 2013 7:06 PM
To: 'gafresno@gunnerandandros.com'
Subject: RE: pharmacy parce in upper village, montecito, ca for verizon wireless (apn 011-200-183)

Mr. Gunner,

We are still interested in your property. Can you respond to our terms or let me know if you're not interested? Thanks very much,

Jay

From: Jay Higgins
Sent: Monday, October 22, 2012 4:12 PM
To: 'gafresno@gunnerandandros.com'
Subject: RE: pharmacy parce in upper village, montecito, ca for verizon wireless (apn 011-200-183)

Mr. Gunner,

Just following up again. I realize the last two times we talked, you indicated that your buildings on the property would not be suitable for an unmanned facility. In case you want to reconsider, here are the terms we propose:

Premises: Approximately 650-square feet of space on the above captioned property along with accessory space for antennas (on the top of a building) of approximately 40-feet in height.

Use of Premises: For the purpose of constructing, operating, and maintaining an unmanned telecommunications facility. The lease premises will house communications equipment, a generator, racks, antennas, radios and batteries.

Lease Term: Two, one-year option periods with consideration by Lessee totaling $2,000 per year; followed by a lease term of five (5) years; with four (4) successive five (5) year renewal options in favor of Lessee (25 years total).

Rent Schedule: Lessee shall pay rent to the owner beginning on the rent commencement date in the amount of $[Redacted],000.00 per year. After the first term, the rental for each succeeding year of the Agreement shall increase on each annual anniversary of the Commencement Date by an amount equal to three percent (3%) of the annual rent paid in the immediately preceding year.

Correspondence continued on following page

Due Diligence: Within thirty (30) days after the execution and delivery of this letter, Owner shall forward to Lessee complete, accurate and legible copies of documents concerning the Property and relevant to the Proposal including, but not limited to, copies of all agreements, plans, drawings; engineering, soils, environmental or other studies; permits or approvals; and notices of any violation of any governmental statute, ordinance, rule or regulation. Lessee may contact local agencies to confirm issues pertaining to the Property.

Improvements: Lessee agrees to provide, at its sole expense, all structures and other improvements as may be necessary for the operation and maintenance of its facility.

Conditions Precedent:
- A mutually agreeable lease document.
- Owner's approval of Lessee's improvement plans.
- A Non-Disturbance Agreement from Lessor lender(s), if applicable.
- A recorded Memorandum of Lease.
- Owner executed Letter of Authorization for permit applications, prior to Lease execution.
- Owner executed Letter of Authorization for site access, prior to Lease execution.

Please let me know if this is of interest. Thanks,

Jay

From: Jay Higgins
Sent: Friday, August 24, 2012 3:16 PM
To: gafresno@gunnerandandros.com
Subject: pharmacy parce in upper village, montecito, ca for verizon wireless (apn 011-200-183)

Mr. Gunner,

Thank you for discussing a potential lease with Verizon Wireless for a cell site with me this afternoon in your new retail center in Montecito (north of East Valley, west of SY Road). First I wanted to congratulate you on the architecture of the center. It has to be the most impressive design I've seen. I wish you the best of luck leasing out your project.

As discussed, I represent VZW in their cell site acquisition group, not on the retail side. I understand that your leasing program at the upper village, which is comprised of individual buildings, requires building leases and is not geared towards more than one tenant per building. Because our needs of ~ 600 SF are smaller than your building offerings, my client would only be able to sublease from one of your tenants in the future, and even then, our equipment storage may not be suitable for the overall retail programming that the project entails. [Redacted]

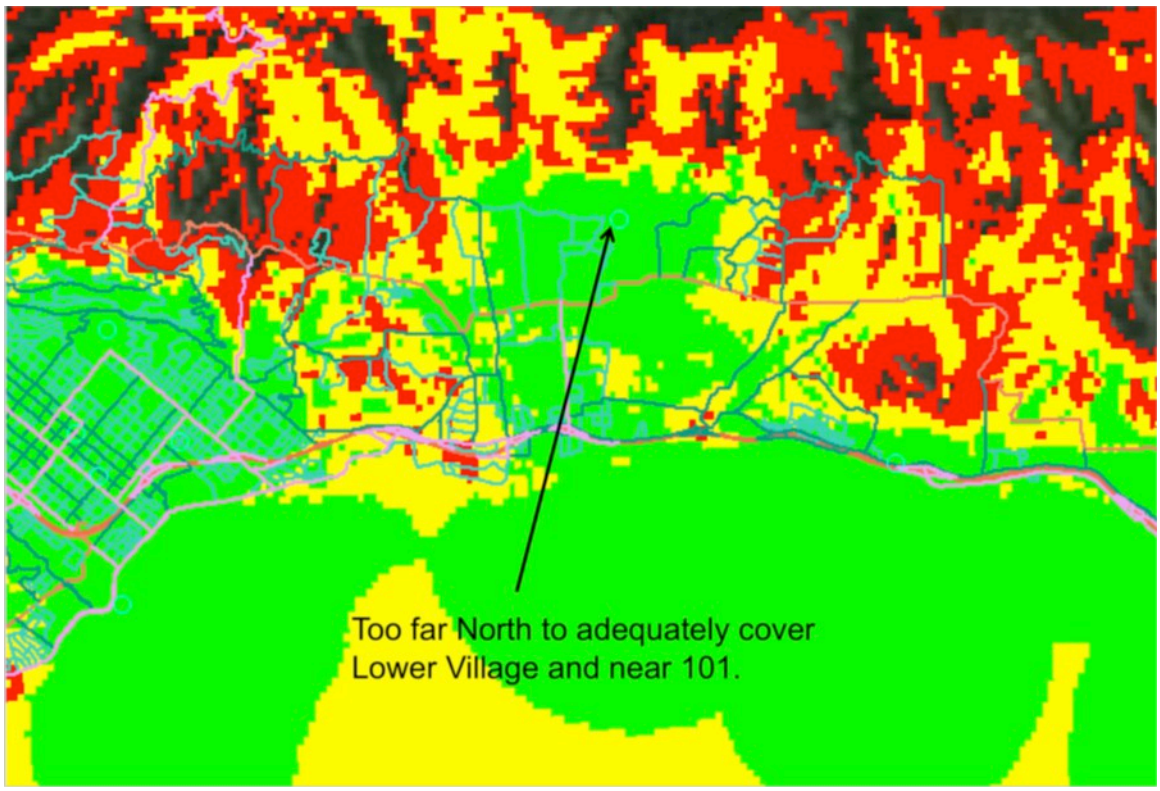
Furthermore, while I have seen VZW construct architecturally compatible antenna installations on commercial buildings, I can understand that you might have reservations about exterior design compatibility.

I appreciate the frank discussion about our mutual objectives, and the political constraints that are inherent in cell site leases. If you change your mind, please contact me at the number below.

Jay

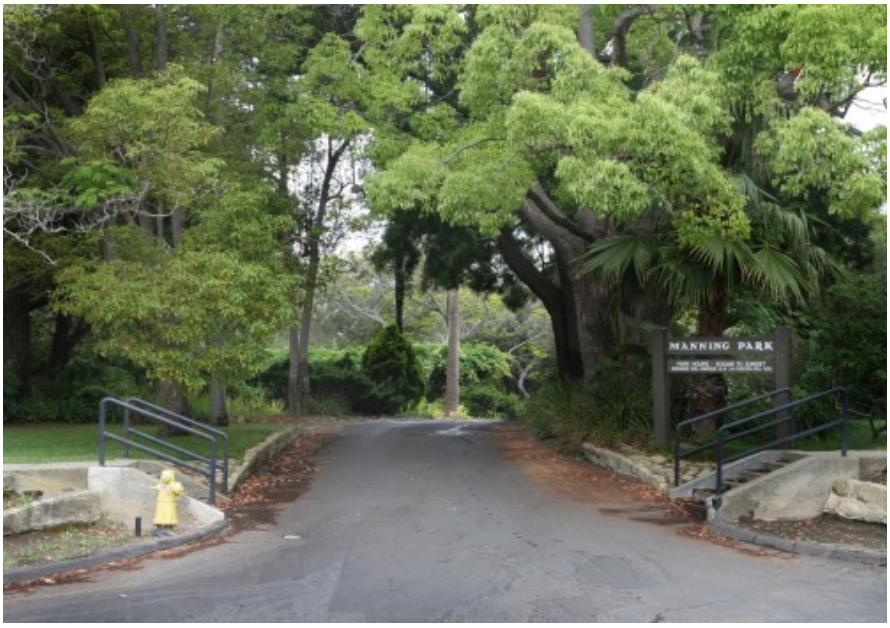
12. San Ysidro Ranch
900 San Ysidro Lane
Elevation: 500 feet
Zoning: C-V

This luxury hotel facility is located one mile northeast of the Approved Facility at the mouth of small canyon. The large property has considerable elevation gain that places it approximately 250 to 350 higher than the Approved Facility. Considering its distance well north of the Approved Facility and key coverage areas of Montecito, a facility at San Ysidro Ranch would not meet the coverage needs of Verizon Wireless, including important stretches of Highway 101 as shown on the map on the following page. Lacking adequate signal propagation, this is not a suitable alternative for Verizon Wireless's facility.



Coverage map for San Ysidro Ranch location

13. Manning Park
449 San Ysidro Road
Elevation: 150-175 feet
Zoning: REC



In 2007, Verizon Wireless contacted the Santa Barbara County Parks Department to investigate the potential placement of a Verizon Wireless facility on an elevated portion of Manning Park. There are no tall structures or collocation opportunities for a wireless facility at Manning Park, and due to heavy tree cover at the park, a facility of at least 50 feet in height would be required to allow for radio frequency propagation. Through discussions with Deputy Director Eric Axelson, it was determined that the Parks Department would not support a Verizon Wireless facility at those locations that would provide adequate radio frequency propagation to the Coverage Gap, nor the antenna height required to achieve necessary signal coverage. Recent correspondence from park officials received September 21, 2012 and shown on the following page confirmed "that County would not entertain a cell site at Manning Park". This alternative was deemed infeasible by Verizon Wireless due to lack of a willing landlord.

From: Langlands, Paddy
Sent: Friday, September 21, 2012 2:05 PM
To: Jay Higgins
Cc: Garciacelay, Claude; Parker, Herman; Bozarth, Jeff
Subject: RE: manning park cell tower

Jay, thank you for the information. I have discussed this with the Director of the Department and he has confirmed that County would not entertain a cell site at Manning Park.

If you any further questions, please let me know.
Yours sincerely,
Paddy Langlands
Interim Deputy, Parks Division
Community Services Department.

805-698-4465

14. Hosmer Adobe
461 San Ysidro Road
Elevation: 2-E-1
Zoning: 195 Feet

This historic building abuts Manning Park on its north side and is some 800 feet southeast and 20 feet lower in elevation from the Approved Facility. When contacted about the possibility of placing a wireless facility on the property, ownership showed a lack of interest as indicated by correspondence on the following page. Lacking a willing landlord, this is not a feasible location for Verizon Wireless's facility.

From: Katie Hay
Sent: Thursday, August 23, 2012 5:02 PM
To: Jay Higgins
Cc: Rebecca Ingram; David Hay
Subject: Re: 461 San Ysidro Rd (hosmer adobe)

Hi Mr. Higgins -

Thank you for your inquiry into this property. We are not interested at this time in entering into a lease arrangement such as you have outlined below. Should our position change in the future...I will be sure to get in contact with you.

Best regards,
Katie Hay
Central Coast Real Estate, LLC

15. Casa Dorinda
300 Hot Springs Road
Elevation: 140 feet
Zoning: 5-E-1

Casa Dorinda is an affluent retirement home located 0.6 miles southwest of the Approved Facility and 75 feet lower in elevation. In late 2011, Casa Dorinda approached Verizon Wireless to locate equipment on their property to provide service to this portion of Montecito to help enhance their service. Verizon Wireless began discussions with the personnel at the facility in December 2011. The plan was to install antennas behind RF-transparent material in the tower and match the architecture, with equipment being located inside the main building. Verizon Wireless prepared drawings, photo-simulations and a survey for the project, and discussions continued through May of 2012. Unfortunately, once the proposal reached the Board level, opposition evidently arose to the proposed facility from certain Board members and residents. As shown in correspondence on the following page, on August 17, 2012, Verizon Wireless received an email from the Senior Director of Operations for Casa Dorinda, indicating that Casa Dorinda was no longer interested in a Verizon Wireless facility at this location. This position was restated in a follow-up email from the Senior Director of Operations on September 26, 2012 which was prompted by press reports that Casa Dorinda is a feasible alternative. In this correspondence, the Senior Director of Operations states, "As for our position, I don't think it has changed". Lacking a willing landlord, this is not a suitable alternative for placement of Verizon Wireless's facility. Appellants' efforts to reengage Case Dorinda as a Verizon Wireless landlord resulted in Casa Dorinda's recommendation of the County roadway median at Hot Springs Road and Olive Mill Road that was previously Casa Dorinda property (See Alternative 19 below).

From: Tim Gallagher
Sent: Friday, August 17, 2012 8:58 AM
To: David Mebane
Subject: RE: Downtown Montecito LE

Good morning,

I think the feel from the Board and some of the Residents is that we don't get involved with a cell tower on the property.

Thanks,
Tim

Tim Gallagher
Senior Director, Operations
Casa Dorinda
300 Hot Springs Road
Montecito, CA, 93108

16. La Casa De Maria
800 El Bosque Road
Elevation: 375
Zoning: E-1

This religious retreat center is located in a quasi-commercial area three-quarters of a mile northeast of the Approved Facility and nearly 160 feet higher in elevation. The property is composed of facility buildings and wooded open space. When approached about placement of a wireless facility on the property, Casa de Maria representatives declined the opportunity, as is shown in correspondence from the Director of Casa de Maria on the following page. Lacking a willing landlord, this is not a feasible alternative for placement of Verizon Wireless's facility.

From: "Stephanie Glatt"
Date: Wed, 12 Sep 2012 15:10:17
Subject: RE: case de maria cell tower

As you can imagine, I'd love the extra $24,000/year. However, we went through that over at Ladera, and there was a great hue and cry from the neighbors, who objected to the sight of it as well as to the possible health hazards. We had group leaders tell us that they would no longer come to La Casa, because they did not want to endanger the health of their participants. One, in fact, even canceled her ongoing programs at El Bosque in protest. People feel safe here, and the sight of a cell tower at close range makes them very uncomfortable.

So, both from the viewpoint of good relations all around, and from the concern about possible health issues, I think we'll need to decline the offer.

Thank you for thinking of us, however.

Steph

17. Knowlwood Tennis Club
1675 East Valley Road
Elevation: 255 Feet
Zoning: 2-E-1

This recreational facility is located six-tenths of a mile east of the Approved Facility and approximately 40 feet higher in elevation. When approached about locating a wireless facility on the property, Knowlwood Tennis Club representatives indicated that placement of a Verizon Wireless facility would not fit into the property owner's use and plans for the site, as shown in correspondence on the following page. Lacking a willing landlord, this is not a feasible alternative for placement of Verizon Wireless's facility.

From: Kathy Abby
To: David Mebane
Sent: Sun, Sep 30, 2012 20:14:02 GMT+00:00
Subject: Cell tower

David
The board of directors at Knowlwood tennis club found that a Verizon cell tower at Knowlwood would not be a good fit for the club. Thanks for your cooperation.

Kathy Abby
Club manager

18. El Montecito Presbyterian Church
1455 East Valley Road
Elevation: 210 Feet
Zoning: 1-E-1

This church is located across East Valley Road from the Verizon switch building on which the Approved Facility is located at a similar elevation. The church also hosts a preschool. Verizon Wireless was asked to explore the potential for use of an existing tower on church property for its wireless facility by Appellants. Church representatives requested a radio frequency emission study prior to entertaining the possibility of placement of the Verizon Wireless facility at this location, and Verizon Wireless commissioned the report which was prepared by Hammett & Edison, Inc., Consulting Engineers on October 17, 2012.

When approached again in February 2013 about placement of a wireless facility on the property, El Montecito Presbyterian Church administration declined the opportunity, as is shown in correspondence from the Executive Director on the following page. Lacking a willing landlord, this is not a feasible alternative for placement of Verizon Wireless's facility.

From: Anne Christensen
Sent: Tuesday, February 12, 2013 5:33 PM
To: Jay Higgins
Subject: RE: verizon wireless installation at the elmo church (montecito relo)

Hi Jay,

Correct, El Montecito Presbyterian Church is not interested in pursuing the Verizon installation at this time.

Best Regards,

Anne Christensen
Executive Administrator
El Montecito Presbyterian Church

19. Roadway Median
Hot Springs Road and Olive Mill Road
Elevation: 147 Feet
Zoning: 2-E-1

Photosimulation of a Verizon Wireless treepole facility located in the roadway median at the intersection of Hot Springs Road and Olive Mill Road

Upon the request of Appellants' counsel, Verizon Wireless investigated this triangle-shaped roadway median which is located at the intersection of Hot Springs Road and Olive Mill Road approximately two-thirds of one mile southwest of the Approved Facility and approximately 70 feet lower in elevation.

Originally, Appellants had hoped that AT&T could relocate its facility from the Verizon Switch at 512 Santa Angela Lane to a collocation facility at this roadway median. Verizon Wireless radio frequency engineers determined that a 75 foot tower would be required to accommodate Verizon Wireless and AT&T antennas at this location. However, Verizon Wireless has subsequently learned through Appellants' counsel that AT&T cannot collocate at this roadway median due to interference with its existing facility on Coast Village Road. The inability of AT&T to collocate at this site will cause a Verizon Wireless facility at this location to have more impacts and to be

more intrusive under the Code than a single collocated facility at 512 Santa Angela Lane.

Due to adjacent mature trees, a tower of a minimum of 65 feet would be required for Verizon Wireless to operate from this location as a stand-alone facility. Title reports obtained by Verizon Wireless have revealed that this roadway median is made up of two parcels, one owned by Santa Barbara County and the other by a private residential property owner. Mapping information received from Southern California Gas Company, Montecito Water District, Montecito Sanitation District and the County confirms that the County parcel is crisscrossed with underground and above-ground utility lines and easements. A conceptual design for a collocatable Verizon Wireless facility at this location (shown in the above photosimulation) is being presented to the Montecito Board of Architectural Review on March 4, 2013.[1] Survey results to be available at the Montecito Board of Architectural Review hearing will evaluate the technical feasibility of locating a wireless facility in the County parcel.

Though antennas would be camouflaged, a treepole at this location, along with the necessary equipment shelter and fencing, would present substantial additional visual impacts. In contrast, the Approved Facility antennas, which are fully screened by architectural features on the Verizon building, qualify under the Code as a preferred collocation on an existing structure. For both the Approved Facility or the treepole design at the Approved Facility location, equipment shelters are screened by an existing landscaped block wall, making either of those alternatives less intrusive than an entirely new uncollocated tower facility at the roadway median.

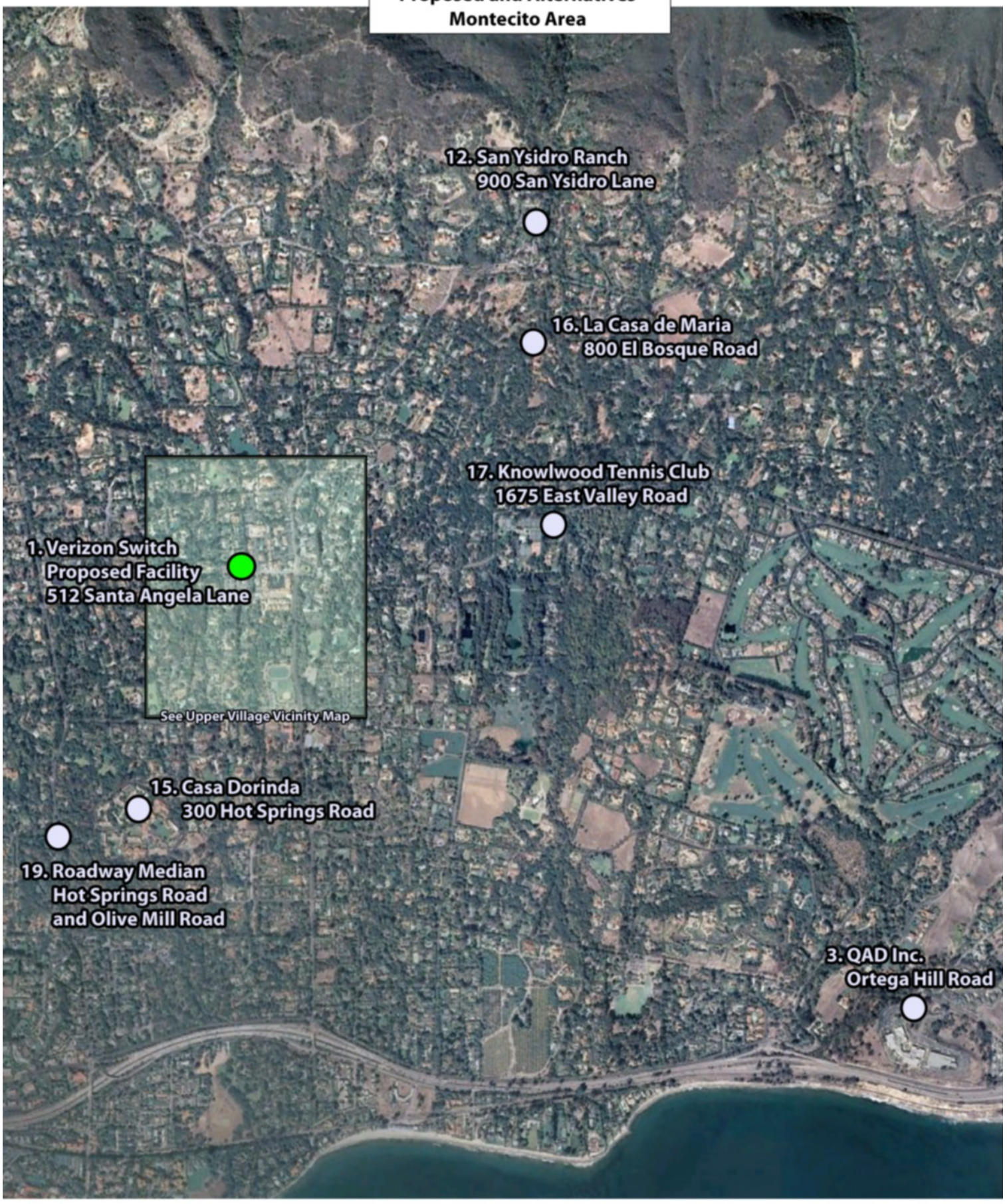
[1] The photosimulation design shown is based on the misunderstanding that the roadway median right-of-way was a single parcel owned by the County. Subsequent title information confirms that the roadway median is made up of two parcels which would require modification of the above design.

Conclusion

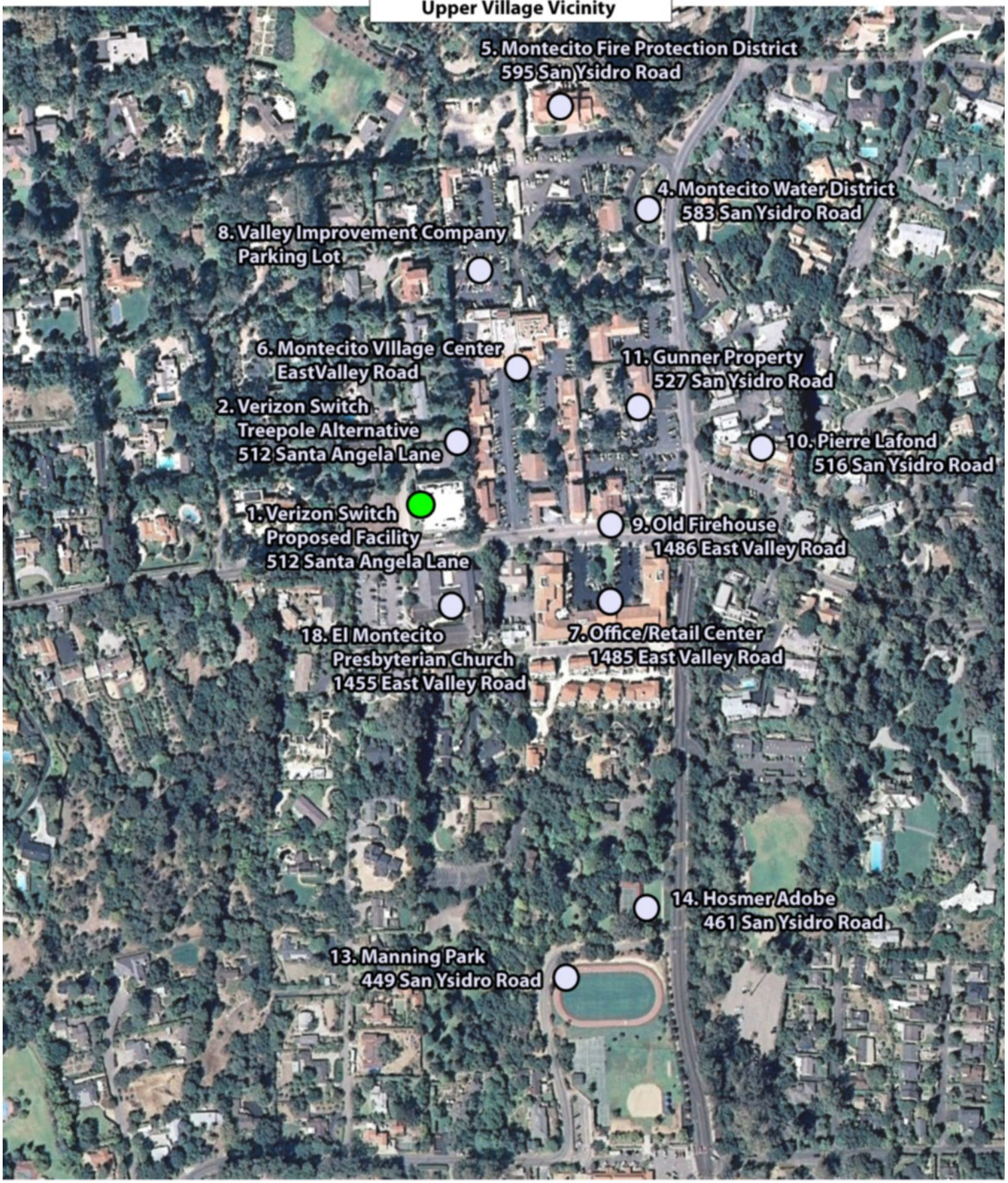
Verizon Wireless evaluated 19 site alternatives within the Coverage Gap over the last six years, including a complete reevaluation of alternatives following the appeal of the Approved facility in June of last year. Based on the foregoing analysis and reevaluation, Verizon Wireless again concludes that the proposed fully-screened collocation facility at the existing Verizon switch building is the least intrusive means to provide continued Verizon Wireless service to Montecito under the values expressed in the Code. This conclusion arises primarily from the fact the Approved Facility is the only location where antennas can be collocated on an existing structure with absolutely no visual or noise impacts and is therefore preferred under the Code.

Based on the request of the Board of Supervisors, Verizon Wireless has made every effort to reevaluate all of the previously investigated and certain new alternatives to the Approved Facility. As none of these sites can be considered less intrusive than the Approved Facility under the Code, they must be dismissed. As a compromise to Appellants, Verizon Wireless has proposed the placement of a collocated treepole at the Approved Facility location that can be approved by the Board of Supervisors at their discretion.

Verizon Wireless
Montecito
Locations of Sites
Proposed and Alternatives
Montecito Area



Verizon Wireless
Montecito
Locations of Sites
Proposed and Alternatives
Upper Village Vicinity



Alternatives Analysis
Attachment A

Verizon Wireless
2785 Mitchell Drive
Walnut Creek, CA 94598

August 8, 2012

To: **Santa Barbara County Board of Supervisors**

From: **Dewane Bonham, RF Design Engineer**, **Verizon Wireless**

Subject: **Statement in Support of Verizon Wireless's Proposed Telecommunications Facility at 512 Santa Angela Lane, Santa Barbara County**

Summary

Verizon Wireless must decommission its existing Montecito cell site on Ortega Ridge Road by October 20th of this year. The resulting loss of coverage would make the Verizon Wireless network inaccessible to 1,473 people and 13 square miles of Santa Barbara County. The coverage gap would also impact two state highways (traveled by over 80,000 vehicles per day) and E911 call locator service for 20,428 residents. To address this gap in service, a new facility is required to allow Verizon Wireless to provide uninterrupted reliable wireless coverage within this coverage gap area. A completely concealed co-location facility on an existing Verizon Building at 512 Santa Angela Lane received the unanimous approval of the Montecito Planning Commission on May 23, 2012 (the "Approved Facility").

Coverage Gap

The coverage gap is located between several existing Verizon Wireless sites. The closest site to the east lies along Route 101 three miles distant from the Approved Facility in Summerland. To the west, several sites cover the city of Santa Barbara. The closest of these sites to the Approved facility lies three miles away at the intersection of Montecito Street and Quarantina Street. Once the Ortega Ridge Road site is decommissioned, Verizon Wireless service will be impacted between the 101 and Los Padres National Forest over a large area bordered on the east by Ortega Ridge Road and west by Sycamore Canyon Road. A lack of service in this area would constitute a significant gap in the Verizon Wireless network. Exhibit A is a detailed prediction of coverage in the area once the Ortega Ridge site has been decommissioned. Green-shaded areas indicate areas where the signal is strong enough for reliable indoor coverage, yellow-shaded areas indicate areas where the signal is strong enough for in-transit service but in-building service is unreliable, and red-shaded areas indicate areas where the signal would be usable outdoors but not reliable in vehicles and unreliable or unavailable in buildings. Unshaded areas indicate

where little or no usable signal will exist. The Proposed Facility location is marked in blue. The approved Verizon Wireless site is designed to address the gap in service that will result from the required decommissioning of the Ortega Ridge site.

Vehicular Coverage Gap

Without the Ortega Ridge site, signal levels along most roadways within the gap area will be insufficient to provide reliable in-vehicle cellular communications. In addition to county roads, two highways will be impacted by the gap: 192 and 1/101. Highway 192 is a California State highway which links Santa Barbara, California to State Route 150. The two lane road experiences a daily traffic volume of about 2,600 vehicles.[1] Also, a key area of heavily traveled route 1 / 101 near the intersection of Sheffield Road will also be without reliable mobile service absent the Approved Facility. Between 76,000 and 80,000 vehicles per day use this section of highway.[2] The Approved Facility is vital to maintaining network reliability along roads in the gap area.

E911 Service Gap

As a telecommunications carrier licensed by the Federal Communications Commission and as one of the two largest carriers serving California, Verizon Wireless is committed to providing reliable emergency services to the public. The anticipated coverage gap to be served by the approved site affects not only the ability to reliably make emergency calls within the gap area, but also the ability of the network to relay the geographic location of the calling device to assist public safety professionals in locating callers in distress ("E-911 Service"). The Approved Facility will provide the area with E-911 Service and enhance E-911 Service for an estimated 20,428 residents within the gap area. Furthermore, The Santa Barbara County Sheriff's Office and Montecito Fire Protection District both use Verizon Wireless service in carrying out their official duties. In fact, the area served by the Approved Facility contains a large swath of steep and wooded residential and open space areas classified by CalFire as a "Very High" fire hazard severity zone.[3] In the event of a wildfire, cellular communications have proven vital to rescue and firefighting efforts.[4] In the event of a fire emergency, the proposed facility will provide emergency services personnel with potentially lifesaving communications capability.

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[1] www.montecitofire.com/resources/pdf/Station_3/Recirc_Draft_EIR_Components/2.0_Project%20Description.pdf

[2] www.sbcag.org/Meetings/SCSPC/2012/03%20March/Item%207%20FSP.pdf

[3] http://frap.cdf.ca.gov/webdata/maps/santa_barbara/fhszs_map.42.pdf

[4] "Cell phones proved to be valuable backups." Jeff Frazier, operations chief for the San Diego Fire-Rescue Department (after 2,200 homes were lost in the Cedar Fire).

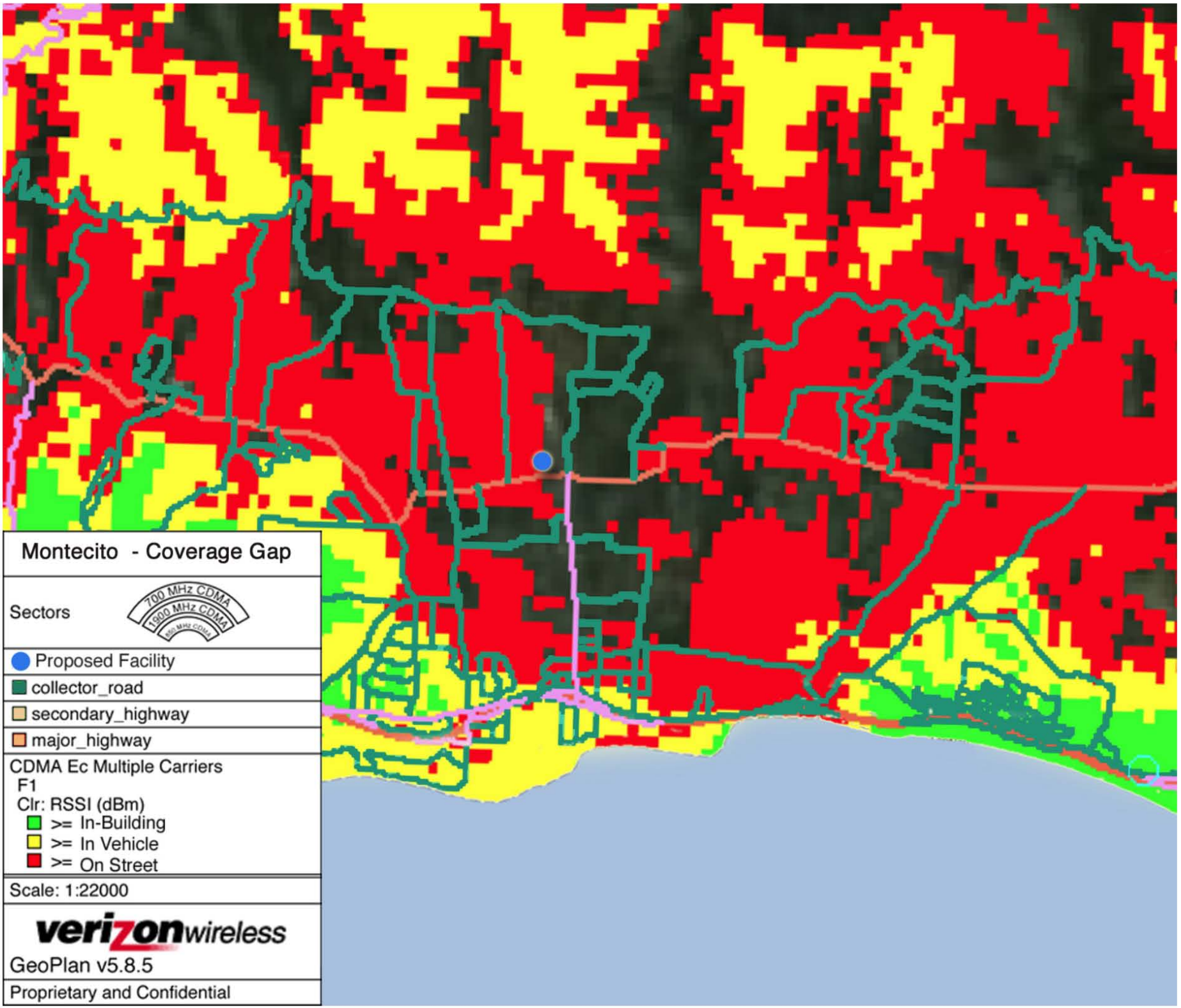
Conclusion

The required decommissioning of the Ortega Ridge site will remove coverage over a large portion of Montecito and Santa Barbara County. To prevent this unacceptable loss of service to our customers, Verizon Wireless has worked with Santa Barbara County to gain Planning Commission approval of this co-location site on an existing Verizon building. Completely screened with no impacts to the community, the Approved Facility will help Verizon Wireless continue to provide Montecito and Santa Barbara County with reliable wireless service.

Respectfully submitted,

Dewane Bonham 8/8/2012

Dewane Bonham
RF Design Engineer
RF Engineering Department - Verizon Wireless


Montecito - Coverage Gap
Sectors
700 MHz CDMA
1900 MHz CDMA
850 MHz CDMA
Proposed Facility
collector_road
secondary_highway
major_highway
CDMA Ec Multiple Carriers
F1
Clr: RSSI (dBm)
>= In-Building
>= In Vehicle
>= On Street
Scale: 1:22000
verizonwireless
GeoPlan v5.8.5
Proprietary and Confidential

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 the base station (Site No. 115535 "Montecito RELO") proposed to be located at 512 Santa Angela Lane in Montecito, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas on a tall steel pole, configured to resemble a pine tree, to be located at 512 Santa Angela Lane in Montecito. The proposed operation will, together with the existing base station at the site, comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5,000–80,000 MHz	5.00 mW/cm^2	1.00 mW/cm^2
BRS (Broadband Radio)	2,600	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A

small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 attached 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"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Verizon, it is proposed to install nine Andrew directional panel antennas – three Model HBX-6517DS-VTM and six Model LNX-6514DS-VTM – on a 75-foot steel pole, configured to resemble a pine tree, to be sited near the northeast corner of the parking lot behind the single-story Verizon telephone switch building located at 512 Santa Angela Lane in Montecito. The antennas would be mounted with no downtilt at an effective height of about 60 feet above ground and would be oriented in identical groups of three toward 0°T, 120°T, and 240°T, to provide service in all directions. The maximum effective radiated power in any direction would be 7,060 watts, representing simultaneous operation at 3,080 watts for PCS, 3,330 watts for cellular, and 650 watts for 700 MHz service.

It is also proposed to relocate existing AT&T antennas from the roof of the switch building to the new pole. For the purposes of this study, it is assumed AT&T would install six Andrew Model DBXLH-6565A0R2M directional panel antennas, mounted at an effective height of about 50 feet above ground and oriented with up to 4° downtilt toward 90°T, 270°T, and 330°T. The maximum effective radiated power in any direction would be 3,510 watts, representing simultaneous operation at 2,020 watts for PCS and 1,490 watts for cellular service.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation by itself is calculated to be 0.0051 mW/cm^2, which is 0.65% of the applicable public exposure limit. The maximum calculated cumulative level at ground, for the simultaneous operation of both carriers, is 1.1% of the public exposure limit. The maximum calculated cumulative level at the second-floor elevation of any nearby building would be 1.9% of the public limit. The location of this and other representative calculated cumulative exposure levels are shown in Figure 3. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels.

No Recommended Mitigation Measures

Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that the two carriers will, as FCC licensees, take adequate steps to ensure that their employees or contractors comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless at 512 Santa Angela Lane in Montecito, 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 base stations.

Authorship

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, 2013. 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.

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

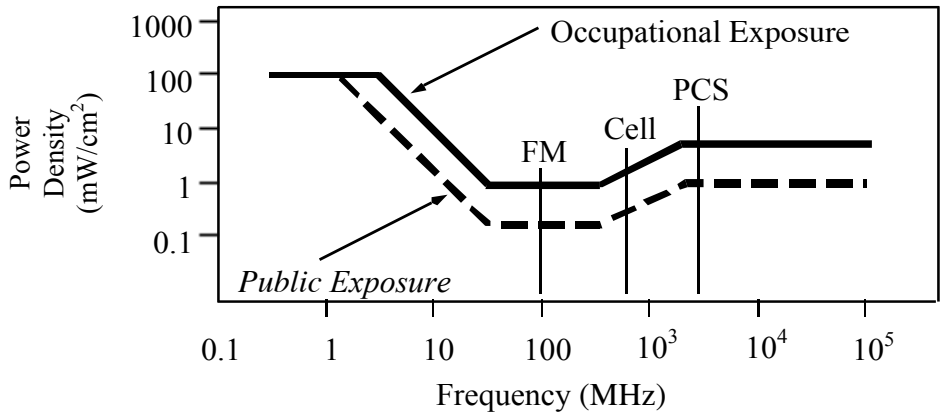
August 30, 2012

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 built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

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 the antenna, in degrees, and
P_{net} = net power input to the antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of the 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:

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

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the 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 has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

Verizon Wireless • Proposed Base Station (Site No. 115535 "Montecito RELO")
512 Santa Angela Lane • Montecito, California
– Alternate Collocation Pole Design –

Representative Calculated Exposure Levels

Aerial photo from Google Maps

Calculated cumulative levels for proposed Verizon and AT&T operations on new pole; maximum is 1.1% of public limit (see text for details).

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Delivered Via Email

Alternatives Analysis
Attachment C

QAD

August 20, 2012

Sue Hardy
Real Estate Department
Verizon Wireless
2785 Mitchell Drive
Bldg. 9
Walnut Creek, CA 94598

RE: Cell Tower Lease

Dear Ms. Hardy:

As you are aware, QAD had numerous communications over the last several years with Verizon, AT&T and their agents, in which QAD stated that it did not intend to renew the cell tower lease that was due to expire April 30, 2012. Due to QAD's perception that Verizon and AT&T were not adequately addressing the situation, on May 27, 2011 QAD provided formal written notification, which was not required by the lease, affirming that QAD would not renew the cell tower lease.

After requests from Verizon and AT&T for an extension, QAD agreed to provide the six-month lease extension offered to Verizon and AT&T earlier this year as an accommodation. QAD reiterated in the extension that under no circumstances would the lease be extended beyond October 31, 2012. Verizon has been on notice for more than long enough to find a suitable alternative and its own failure to act on a timely basis has put Verizon in its current position.

In addition, we were quite surprised that Verizon and AT&T had failed to notify the subtenants, including emergency services, of the termination of the cell tower lease, even after explicitly agreeing to do so under Section 6 of the extension. We find this to be further validation of our concern that this situation has not been properly addressed by Verizon and AT&T.

Verizon's request to further extend the cell tower lease for up to thirty-six months is unreasonable and will not be entertained by QAD. QAD has already provided ample notice and an accommodation of six months beyond the original expiration date of April 30, 2012. However, in the interest of helping out the Montecito community, QAD is willing to grant Verizon an additional extension, under the following terms, in order for Verizon to secure an alternative cell tower location:

- The extension will be for an additional two-month period beyond October 31, 2012 at currently applicable rates, thus the extension will end on December 31, 2012.

- The penalty terms of Section 4 of the original extension will not apply to Verizon until January 1, 2013.
- By September 30, 2012, Verizon shall provide QAD with a decommissioning schedule in accordance with the time periods described above.
- Note that this extension is contingent upon Verizon making its own arrangements with AT&T for use of the cell tower from November 1 to December 31, 2012.

If you have any questions regarding this matter, please contact Mark Rasmussen, QAD Senior Corporate Counsel, at 805-566-4438.

Regards,

Kent Harris
Director, Administrative Services
QAD Inc.

Cc: Peter Maushardt, Verizon Wireless
Mark Rasmussen, QAD Inc.