AT&T Mobility • Proposed Base Station (Site No. CCL05741)
186 Upper Summit Drive • Santa Cruz, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate the base station (Site No. CCL05741) proposed to be located at 186 Upper Summit Drive in Santa Cruz, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

AT&T proposes to install directional panel antennas on a new 150-foot steel pole, configured to resemble a pine tree, to be sited within the fenced compound located at 186 Upper Summit Drive in Santa Cruz. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standard

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 limit for exposures of unlimited duration at several wireless service bands are as follows:

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

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. 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. 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 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

Site and Facility Description

Based upon information provided by AT&T, including zoning drawings by Delta Groups Engineering, Inc., dated June 11, 2021, it is proposed to install nine CommScope Model NNH4-65C-R6H4 directional panel antennas on a new 150-foot steel pole, configured to resemble a pine tree, to be sited within the fenced compound located at 186 Upper Summit Drive in Santa Cruz. The antennas would employ up to 10° downtilt, would be mounted at an effective height of about 140 feet above ground, and would be oriented in groups of three toward 100°T, 180°T, and 340°T. The maximum effective radiated power in any direction would be 31,080 watts, representing simultaneous operation at 3,360 watts for WCS, 5,160 watts for AWS, 10,140 watts for PCS, 3,770 watts for cellular, and 8,650 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.*

* The existing towers and antennas located on the property are to be removed.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.030 mW/cm^2, which is 4.2% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building† is 3.8% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

No Recommended Mitigation Measures

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

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by AT&T Mobility at 186 Upper Summit Drive in Santa Cruz, 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 No. E-18063, which expires on June 30, 2023. 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.

Rajat Mathur

Rajat Mathur, P.E.
707/996-5200

July 6, 2021

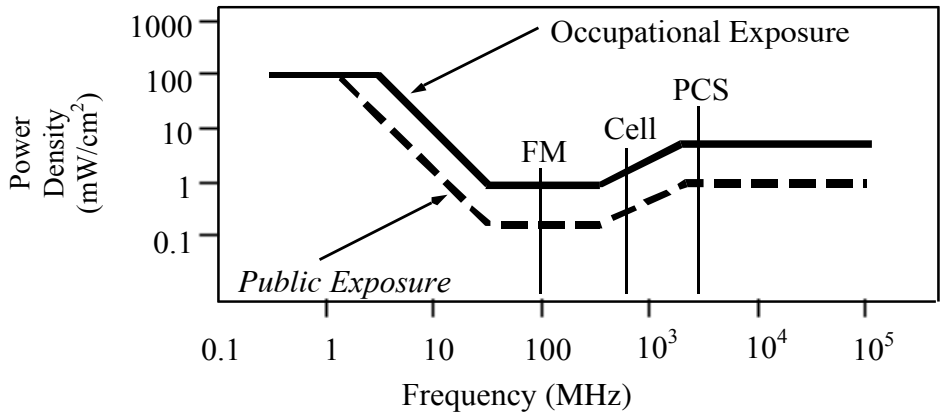
† Located at least 250 feet away, based on aerial photographs from Google Maps.

FCC Radio Frequency Protection Guide

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

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

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



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

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

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

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

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

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

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

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

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

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

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

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

MILLER STARR REGALIA
1964-2024
Vision. Strategy. Results. 60 Years and Counting.

1331 N. California Blvd.
Suite 600
Walnut Creek, CA 94596

T 925 935 9400
F 925 933 4126
www.msrlegal.com

Travis Brooks
travis.brooks@msrlegal.com

March 26, 2024

VIA E-MAIL

Honorable Planning Commissioners
County of Santa Cruz
701 Ocean Street
Suite 400
Santa Cruz, CA 95060
c/o Nicholas Brown
E-Mail: Nicholas.Brown@santacruzcountyca.gov

Re: Application Number 221049
Opposition to Appeal of Zoning Administrator Approval of Wireless Communications Facility at 186 Summit Drive (APN 080-062-02) ("Appeal")

Dear Honorable Commissioners:

This firm represents CTI Towers, Inc. ("CTI" or the "Applicant") in its application to replace an existing telecommunications facility with a modern, camouflaged wireless communications tower at 186 Summit Drive in the County (the "Project"). At a public hearing on January 19, 2024, the Zoning Administrator ("ZA") considered the same arguments raised in the Appeal and approved the Project, finding appropriately that the Project is exempt from review under the California Environmental Quality Act. We respectfully request that the Commission do what is appropriate under the County's Planning and Zoning Regulations, applicable state law, and the federal Telecommunications Act of 1996 - deny the Appeal in its entirety.

As we explained in prior correspondence to the County and at two public hearings – the Project is needed to close a significant gap in wireless service identified by AT&T Wireless, CTI's primary anticipated tenant at the Project. (See January 18 Letter from Travis Brooks to Jocelyn Drake, attached and reasserted hereto as **Exhibit A**). The administrative record demonstrates that the Project proposes the least intrusive means of closing this gap in service coverage as reflected in a detailed alternatives analysis of five nearby sites and AT&T's RF Statement.[1]

[1] In other words, the appellants failed to provide substantial evidence demonstrating that any alternative facility location – including those on Patrick or Robles Roads - poses a technologically feasible or less intrusive means of closing AT&T's coverage gap, or that the

Accordingly, substantial evidence in the record supports the findings of approval and the federal Telecommunications Act of 1996 requires County approval of the Project.

As noted by the County staff and as discussed in more detail below, the Project qualifies for both Class 2 (replacement or reconstruction of existing structures, 14 CCR § 15302) and Class 3 (new construction or conversion of small structures, 14 CCR § 15302) categorical exemptions to the California Environmental Quality Act ("CEQA"). Substantial evidence in the record supports the ZA's application of these exemptions, and appellants have failed to provide any evidence – let alone substantial evidence - that the Project could have significant environmental impacts or that any of the exceptions to CEQA's categorical exemptions are applicable.

I. The Project

CTI proposes to replace an approximately 50-year-old steel guyed tower, an adjacent lattice tower, a metal shed, and satellite dish assembly with a modern 140-foot monopine tower that meets modern building and safety standards. The Project has been carefully designed to blend in with the trees that surround it. It will replace dated, unscreened, uncamouflaged metal tower and accessory structures with a tree-like structure and new tree plantings, a landscaping plan, and screening to minimize visual impacts to nearby residents. The Project would only be approximately 13 feet higher than nearby trees and – as visual simulations included in the record clearly demonstrate – the Project would be fully screened and not visible from nearby roadways, highways, commercial areas, and intersections. It would also not be visible from public parks or scenic vistas. The Project will significantly improve views of the Project at the ground level by removing dated and unscreened metal appurtenant structures. Conditions of approval would require the Applicant to maintain Project landscaping and screening to help the Project blend in with its surroundings for years to come.

In addition to closing AT&T's gap in service coverage, the Project would provide critically needed FirstNet emergency communications service supported by safe and efficient backup generators which would keep the Project operational during power outages. (See November 20, 2023 letter from Kevin R. Nida, Senior Public Safety Advisor with FirstNet to Fernandina Dias Pini [discussing support for the Project and need for FirstNet communication in the area, which is lacking]).

ZA failed to comply with applicable local regulations or state or federal law when she approved the Project.

II. Consistency With The County's Wireless Facilities Regulations

The Project is consistent with the applicable Rural Residential ("RR") zoning, which expressly allows the Project at its proposed height, with a Height Exception pursuant to County Code section 13.10.660(G). A Height Exception is appropriate because the Project is necessary to close AT&T's identified significant gap in wireless service and it proposes the least obtrusive location and design to close the coverage gap. In other words, the Project is the best solution to close AT&T's coverage gap after a meaningful comparison of alternative sites, designs and technologies. (See Id. at 13.10.660(C)(4).)

The Project would also comply with the siting, aesthetic, and construction requirements set out in section 13.10.660 subparts (E), (F), and (G) by: (1) incorporating as much visual screening and new landscaping as possible, (2) utilizing existing foliage and natural features to conceal and integrate the Project into its surroundings, (3) camouflaging its materials, colors, and foliage to mimic the surrounding grove of trees, (4) incorporating a self-supporting monopole that will be narrower and less visually intrusive than the existing steel tower, and (5) minimizing the visibility of its supporting and adjacent equipment with landscaping and screening. The Project is also compliant with the safety requirements set out in subpart (H) of section 13.10.660 because it will incorporate fire resistant surfaces and require continuous maintenance of surrounding landscaping and the site to ensure maximum fire prevention. Finally, the Project has been designed to minimize the amount of disruption caused to nearby properties.

III. The Project Is Exempt From CEQA

As has been the case for similar wireless facilities throughout the County and the state, the Project qualifies for multiple exemptions to CEQA. In particular, the Project is exempt pursuant to the Class 2 categorical exemption for replacement or reconstruction of existing facilities (14 CCR § 15302) and Class 3 categorical exemption for new construction or conversion of small structures. (14 CCR § 15303.) The Project is also covered by the common sense exemption because it can be seen with certainty that there is no possibility that the Project may have a significant effect on the environment. (14 CCR § 15061(b)(3).)

A. The Project Is Subject To Categorical CEQA Exemptions[2]

The Secretary of the California Resources Agency has determined that certain classes of projects meeting listed criteria and not subject to an exception, do not

[2] That it is entirely appropriate to apply a categorical CEQA exemption to the Project is evidenced by the fact that when the Board of Supervisors adopted its current wireless communication facilities ordinances in May of 2022, it acknowledged that:

have a significant effect on the environment, and therefore are categorically exempt from CEQA. (See generally, 14 CCR § 15354.) Public agencies are prohibited from requiring preparation of an environmental impact report or negative declaration for a project that qualifies for a categorical exemption unless it falls within one of the exceptions to the categorical exemptions. (14 CCR § 15300.2, Pub. Res. Code § 21080(b).)

If a project is subject to a categorical exemption, no formal environmental evaluation is required and the CEQA process "need not proceed further." (*City of Pasadena v. State* (1993) 14 Cal.App. 4th 810, 819-20.) The local agency need not consider alternatives or mitigation measures for a project determined to be categorically exempt. (*Hines v. California Coastal Comm'n* (2010) 186 Cal.App.4th 830,858.) A project that is categorically exempt may be implemented without any CEQA review. (*Ass'n for Protection of Envt'l Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 726.) Moreover, "although categorical exemptions are construed narrowly, [a court's] review of a local agency's decision that a project falls within a categorical exemption is deferential, and [they] determine only whether [a decision that a project is exempt] is supported by substantial evidence." (*Aptos Valley Residents Association v. County of Santa Cruz* 20 Cal.App.5th 1039, 1046.) While an interpretation of the language of the CEQA guidelines with respect to the scope of CEQA exemption is a question of law, a local agency's factual determination whether a project is covered by an exemption, is governed by the deferential substantial evidence test. A reviewing court does not conduct an independent review of the record, it must affirm a local agency's factual determination that a project fits within an exemption so long as the determination is based on substantial evidence in the record.[3] A court must affirm a local agency's factual determination that a project fits within an exemption so long as this determination is based on substantial evidence in the record. (See e.g., *Holden v. City of San Diego* (2019) 43 Cal.App.5th 404, 410.)

Where a project properly falls within a categorical exemption, to defeat a local agency's reliance on that categorical exemption(s), more than just a "fair argument"

> future wireless facility projects resulting from the adoption of [the current wireless ordinance] are likely exempt from CEQA review in accordance with CEQA Guidelines Section 15301 (existing facilities), Section 15302 (replacement or reconstruction), Section 15303 (new construction or conversion of small structures) and/or Section 15304 (minor alterations to land).

(See County of Santa Cruz Planning Department, Notice of Exemption, Exhibit A to Ordinance No. 133-22)

[3] Substantial evidence is defined by CEQA to include "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." It does not include "argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate or erroneous, or evidence of social or economic impacts that do not contribute to, or are not caused by, physical impacts on the environment." (Public Resources Code §§ 21080(e)(1), 21082.2(c).)

that the project may have a significant environmental impact must be shown by an appellant; rather, it must be demonstrated, based on substantial evidence in the record that an "exception" to the exemption applies. When facts relating to the applicability of an exemption are in dispute and the local agency makes written findings on these issues, a reviewing court will uphold the local agency's determinations so long as they are supported by substantial evidence in the record. In this review, "all conflicts in the evidence are resolved in favor of the prevailing party and all legitimate and reasonable inferences are made to support the agency's decision." (*Holden v. City of San Diego* (2019) 43 Cal.App.5th 404, 410.)

1. <u>The Zoning Administrator Appropriately Determined That A Class 2 Exemption Applies</u>

As noted in the staff report, Class 2 consists of replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced, including but not limited to:
….

> (b) Replacement of a commercial structure with a new structure of substantially the same size, purpose, and capacity.
>
> (c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.

….

(14 CCR § 15302.)

There is no limitation on the total size of a project that may be subject to the above exemption. Moreover, replacement structures within the category in subpart (b) above are not required to be precisely the same size as the old structure, they only need to be located on the same site substantially the same size as what is being replaced. (*Dehne v. County of Santa Clara* (1981) 115 Cal.App.3d 827, 837.)

The Project clearly falls within the Class 2 exemption category. As discussed in detail in the staff report, the Project proposes removing multiple aged pieces of communications equipment: a 70' 6" guyed steel tower, a 12' 6" lattice tower, a satellite dish assembly, a steel lattice structure, and an additional metal structure. These structures would be replaced with a single camouflaged 140' mono-pole tower, which would have approximately half the footprint of the existing 70' 6" tower. The replacement tower would be entirely contained on the same, approximately 10,000 square foot fenced site as the facilities it will replace, and will retain the existing equipment building. The replacement tower would also be similar in height to the trees surrounding it and is designed to mimic them in color, massing, and materials.

The Project would have substantially the same purpose and capacity as the facility it is replacing. It will replace existing communications improvements that provided wireless broadcast, satellite, and police/emergency communications to the surrounding community - because these technologies no longer meet modern requirements, consumer, or safety needs - the Project will replace them with modern FirstNet emergency telecommunications equipment and 4G LTE wireless service. In other words, the Project would serve the same telecommunications purpose to the community as the existing facilities did, however it will modernize the method in which it provides this utility to meet modern technological, consumer, and communication needs.

2. The Zoning Administrator Appropriately Determined That A Class 3 Exemption Applies

As noted in the staff report, the Class 3 exemption consists of construction and location of limited numbers of new, small facilities or structures and installation of small new equipment and facilities in small structures. Examples of this exemption "include but are not limited to":

> (a) One single family residence, or a second dwelling unit in a residential zone. In urbanized areas, up to three single-family residences may be constructed or converted under this exemption.
>
> (b) A duplex or similar multi-family residential structure, totaling no more than four dwelling units. In urbanized areas, this exemption applies to apartments, duplexes and similar structures designed for not more than six dwelling units.
>
> (c) A store, motel, office, restaurant or similar structure not involving the use of significant amounts of hazardous substances, and not exceeding 2,500 square feet in floor area. In urbanized areas, the exemption also applies to up to four such commercial buildings not exceeding 10,000 square feet in floor area on sites zoned fur such use….
>
> (d) Water main, sewage, electrical, gas, and other utility extensions, including street improvements, of reasonable length to serve such construction.
>
> (e) Accessory (appurtenant) structures including garages, carports, patios, swimming pools, and fences.

(14 CCR § 15303.)

Whether a project proposes a small facility or structure(s) that qualify for the above exemption depends on the context of the project and Class 3 exemptions have frequently been upheld for much larger structures and facilities than proposed by the Project. For example, Class 3 exemptions have been upheld for a 4,800 square foot full service car wash and attached coffee shop on a 25,000-square foot lot (*Walters v. City of Redondo Beach* (2016) 1 Cal.App.5th 809, 817), a 5,800-square-foot retail and office building (*Fairbank v. City of Mill Valley* (1999) 75 Cal.App.4th 1243), and 726 new utility cabinets throughout the City of San Francisco (*San Francisco Beautiful v. City and County of San Francisco* (2014) 226 Cal.App.4th 1012).

In 2018, the Fourth District Court of Appeal found the application of the Class 3 exemption was appropriate for a faux monopine cell tower and adjacent structures proposed in a public park with more likelihood for impacts to public views or scenic resources than present here. In *Don't' Cell Our Parks v. City of San Diego* (2018) 21 Cal.App.5th 338, the Fourth District Court of Appeal upheld the City's use of the Class 3 exemption, noting that although none of the examples in CEQA Guideline 15303 were "directly applicable", the monopine tower, which involved an approximately 534 square foot footprint (thus smaller than the 2,500-10,000 square foot limitation for commercial structures in Class 3) would be surrounded by similarly sized trees, was smaller than a residence, store, motel, office or restaurant – as a matter of law the Class 3 exemption applied. Here, like the tower involved in *Don't Cell Our Parks*, the Project proposes approximately 976 square feet of new development – far smaller than the 2,500-10,000 square feet of commercial development contemplated in Class 3. Moreover, although the proposed Project tower is taller than the tower involved in *Don't Cell Our P*arks*,* it is similar in size to the grove of trees surrounding it, which was a key factor the court relied on in *Don't Cell Our Parks*. The Project is also shorter than the 155-foot ham radio tower located nearby on Patrick Road further supporting the factual determination that the Project is a small facility in its context. Finally, the Project is designed to mimic the size and massing of surrounding trees, and unlike the *Don't Cell Our Parks* decision, the Project would not be visible from public parks or vista points. In other words, a court has already determined that cell towers, like those proposed by the Project, appropriately fall into the Class 3 exemption. Substantial evidence supports the County's conclusion that a Class 3 exemption is appropriate here.

3. None Of The Exceptions To Categorial Exemptions Apply

As made clear in the staff report, none of the exceptions to a categorical exemption set out in CEQA Guideline 15300.2 are present here because: (a) the Project would not have any impact on a sensitive environmental resource of hazardous or critical concern; (b) the Project would not result in cumulative impacts that would be significant over time; (c) there is no reasonable possibility that the Project would have a significant effect on the environment due to unusual circumstances; (d) the Project would not result in any damage to scenic resources; (e) the Project would

not be located on an identified hazardous waste site; and (f) the Project would not cause a substantial adverse change to the significance of a historical resource.

Here, the site is not characterized by any sensitive environmental characteristics and would not involve hazardous substances. Moreover, as demonstrated by the photo simulations included in the administrative record, the Project would not be visible from area public roadways, commercial areas, parks and scenic vistas. Although portions of the Project may be partially visible to nearby residents, these "private view" impacts not recognized as potentially significant impacts under CEQA. (See *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885*,* 902-904; and *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 492 ["Under CEQA, the question is whether a project will affect the environment of persons in general, not whether a project will affect particular persons"].)[4]

Appellants failed to produce substantial evidence or even allege any potentially significant environmental impacts (including any impacts due to unusual circumstances),[5] that the Project would result in damage to any scenic resources, or any other basis to claim that an exception to the Class 2 and Class 3 exemptions applies.

B. The Project Is Subject To The "Commonsense Exemption"

The common sense exemption to CEQA applies:

> [w]here it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment…. (14 CCR 15061(b)(3).)

As one court noted:

> [a] discussion accompanying [the Guideline setting out the common sense exemption] explains its purpose as follows: Subsection (b)(3) provides a short way for agencies to deal with discretionary activities which could arguably be subject to the CEQA process but which common sense provides should not be subject to the Act. This section is based on the idea that CEQA applies jurisdictionally to activities which have the potential for causing environmental effects. Where an activity has no possibility of causing significant effect, the activity will not be subject to CEQA.

[4] Moreover, the Project would in many ways improve the aesthetics of the Project site by removing unscreened metal equipment and towers and replace them with landscaping and a monopine tower designed to blend in with its surroundings.

[5] There is nothing unusual about this Project, which is similar to cell towers that have been approved in the County and throughout the state subject to the same categorical exemptions applicable here.

(*Creed-21 v. City of San Diego* (2015) 234 Cal.App.4th 488, 510 (internal citations omitted.))

Here, as the staff report lays out in detail, the Project would be located on an already disturbed site, would replace existing telecommunications facilities, is designed to mimic its forest surroundings and is surrounded by a grove of similarly sized trees, and would include landscape screening to screen nearby private understory views. There are no sensitive biological resources, or historical or archeological resources, or scenic resources at the Project site or vicinity. The impacts alleged by appellants can only be characterized as potential private view impacts from private property. As reiterated by multiple courts, state law does not protect private views from private lands, and impacts to private views are not potentially significant impacts under CEQA. (See *Porterville Citizens* supra at 902-904; and *Mira Mar Mobile Community* supra at 492-94.)[6]

The record demonstrates that the Project has no possibility of causing a significant effect on the environment, and substantial evidence in the record supports a finding that the Project is subject to the "common sense" exemption.[7]

IV. The Project Is The Least Intrusive / Obtrusive Means Of Closing Its Identified Significant Gap In Service

As CTI already demonstrated in detail in its January 18 letter (See **Exhibit A** at pp. 2-6), and RF Statement (first attachment to **Exhibit A**), AT&T identified a significant service gap in 4G LTE service in the vicinity of the Project Site. The Project would close AT&T's service gap by adding critically important wireless infrastructure that would provide customers reliable service, in a large area where there currently is none.

Substantial evidence in the record also makes clear that the Project proposes the least intrusive means to close AT&T's significant wireless service gap. This includes a comprehensive alternatives analysis that analyzed whether AT&T could close its significant coverage gap with a facility at: (1) an existing 79' pole operated by Crown Castle GT Company at the Crest Ranch Christmas Tree Farm; (2) a proposed 150-foot tall facility at the Ben Lamond Conservation Camp at 13575 Empire Grade Road, (3) a proposed new 150-foot tower at the Bonny Doon Fire and Rescue Station at 7276 Empire Grade Road; and (4) a 150-foot tower at the same site as the recently approved ham radio tower on Patrick Road. As noted in detail in

[6] If that were not enough, appellants do not take into account the significant ground level aesthetic improvements to screening and the monopine tower itself, which would arguably improve private views and aesthetics in the areas surrounding the Project site.

[7] We note that while the Project qualifies for multiple CEQA exemptions, the scope of any environmental review under CEQA is furthered constrained by the limits on the County's discretion to deny or condition the Project pursuant to the federal Telecommunications Act of 1996. (Public Resources Code § 21004; 14 CCR § 15040.)

AT&T's RF Statement, none of these alternative locations offered the location or other site conditions necessary to close AT&T's identified service gap. In response to the Appeal, the applicant team also inquired with PG&E regarding the possibility of locating a wireless facility at the substation located near 333 Robles Drive. PG&E responded that it would *not* allow a wireless facility at this property, meaning it is not a feasible alternative facility location.

A. The Patrick Road Site Is Not A Technologically Feasible Alternative

As already demonstrated in detail in our January 18 letter, RF Statement, and the staff report, locating a wireless facility a at 140 foot centerline (with a total height of 150-feet, 10 feet higher than the Project) at Patrick Road *would not* close AT&T's significant gap in coverage. A facility at the Patrick Road location would still leave a significant gap in coverage south on Empire Grade and in the southeastern portion of the coverage gap area. Likely for this reason, AT&T already independently assessed the feasibility of closing its service gap at Patrick Road in 2020 and determined that the location was not a feasible location to close its significant gap in service coverage. Accordingly, the Patrick Road site is not a technically feasible alternative to close its significant service coverage gap. (See *T-Mobile USA, Inc. v. City of Anacortes* (2009, 9th Circuit) 572 F.3d 987, 996; see also **Exhibit A** at pp. 4-5)[8]

B. PG&E Substation On Robles Road Is Not A Technologically Feasible Alternative

As noted above, PG&E has indicated it is unwilling to allow a wireless facility to be constructed at its substation on Robles Road. This, in addition to the fact that AT&T already independently determined that locating a wireless facility at this location *would not* close its significant gap in coverage, demonstrates that the PG&E substation does not provide a technically feasible alternative for AT&T to close its identified significant gap in coverage.

V. CTI Fully Complied With Its Obligation To Erect A Mock-Up

Section 13.10.661(D) provides that, unless waived by County staff, "on-site visual demonstration structures (i.e., mock-ups) shall be required for all proposed wireless

[8] As also noted in the record, AT&T and the Applicant do not believe that the existing ham radio tower would support a wireless facility installation. This means an entirely new facility would need to be constructed at Patrick Road and there is no indication that an entirely new and taller cell tower there would be any less visually intrusive than the Project.

communication facilities in time, place, and manner as determined by [County staff]."

As the staff report notes, CTI met this requirement by placing a mock-up at the site before the October 20, 2023 hearing on the Project. Contrary to the unsubstantiated claims in the Appeal, at no point during the October 20, 2023 hearing, or otherwise did the ZA or County staff require an additional mock-up to be placed at the Project site. CTI fully complied with the requirement set forth in County Code section 13.10.661(D).

VI. Conclusion

We appreciate County staff's time and attention to this matter and look forward to working with the County to bring this important wireless and emergency communications facility to the community. As the staff report sets out in detail, the Appeal should be denied in its entirety. We look forward to attending and participating in the hearing on Wednesday.

Very truly yours,

MILLER STARR REGALIA

Travis Brooks

Travis Brooks

cc: Sheila McDaniel, Santa Cruz County Planning Department,
Sheila.McDaniel@santacruzcountyca.gov
Justin Graham, Santa Cruz County counsel,
Justin.Graham@santacruzcountyca.gov
Client

Attachments

TZB:tzb

EXHIBIT A

MILLER STARR REGALIA

1331 N. California Blvd.
Suite 600
Walnut Creek, CA 94596

T 925 935 9400
F 925 933 4126
www.msrlegal.com

Travis Brooks
travis.brooks@msrlegal.com

January 18, 2024

VIA EMAIL

Jocelyn Drake
Zoning Administrator
County of Santa Cruz
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060
c/o Fernanda Dias Pini
Fernanda.DiasPini@santacruzcountyca.gov

Re: Wireless Communication Facility, 186 Summit Drive, Santa Cruz, CA 95060
Application No. 221049 (APN 080-62-02); Agenda Item 4

Honorable Zoning Administrator Drake:

We write on behalf of CTI Towers, Inc. ("CTI" or the "Applicant") in advance of the continued hearing on its application to construct a wireless communication facility at 186 Summit Drive in the County (the "Project"). The Project would replace an aged guyed tower with a monopine tower constructed and operated in compliance with modern building and safety standards. Unlike the existing tower, the Project is designed to blend in as much as possible with its surroundings and it incorporates design components tailored to respond to feedback from the County and community members.

As detailed below, the proposed Facility is needed to close a significant gap in wireless coverage identified by AT&T Wireless, CTI's primary tenant at the Project. As the now supplemented administrative record reflects, the Project proposes the least intrusive means of closing this gap in coverage. This conclusion is supported by detailed analyses of alternative tower locations (including the site of a recently approved HAM radio tower on Patrick Road), alternative tower heights, and alternative wireless technologies and other information included in the administrative record. Substantial evidence in the record supports staff's proposed findings of approval and the federal Telecommunications Act of 1996 requires County approval of the Project.

Again, we appreciate staff's hard work in preparing the staff report and supporting materials. We respectfully request that the Zoning Administrator accept staff's recommendation and approve the Project, but at a height of 150 feet as requested,

which would allow for future collocation opportunities and provide AT&T with better wireless coverage to close its coverage gap.

I. The Project

CTI proposes to replace an approximately 50-year-old wireless tower and satellite dish with a 150-foot monopine tower that meets modern building and safety standards. After feedback from the public and the Zoning Administrator, the Applicant spent the last several weeks modifying Project designs to remove branching from the lower 85-foot portion of the tower and added bark coloration that more closely resembles surrounding trees. The Project would replace a dated, unscreened, uncamouflaged metal tower and accessory structures with a tree-like structure with new tree plantings, a landscaping plan, and screening to minimize visual impacts. Conditions of approval would require the Applicant to maintain Project landscaping and screening to minimize the Project's aesthetic impacts for years to come.

The Project is consistent with applicable Rural Residential ("RR") zoning, which allows for construction of wireless communication facilities with a Commercial Development Permit. Because the proposed facility will exceed 75 feet in height, the Applicant is also requesting a Height Exception pursuant to County code section 13.10.660(G)(1). The findings for a height exception can be made because the Project is necessary to close AT&T's significant gap in coverage and proposes the least visually obtrusive and best means for the community (i.e. least intrusive) to do so. The Project would also comply with the siting requirements in County Code section 13.10.660(E) by incorporating as much visual screening as possible, utilizing existing foliage and natural features to conceal and integrate the Project into its surroundings, and by camouflaging its appearance to mimic existing trees.

II. Federal Law Constrains The County's Ability To Deny The Project

In addition to meeting applicable local requirements, approval of the Project is required by key federal laws that govern local agency regulation of wireless facilities. The federal Telecommunications Act of 1996 (the "Act") is intended to "promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers…." The Act furthers these goals in part through the "reduction of the impediments imposed by local governments upon the installation of wireless communications facilities." (*See City of Rancho Palos Verdes v. Abrams* (2005) 544 U.S. 113, 115-16.)[1]

[1] U.S. Supreme Court notes, "Congress enacted the Telecommunications Act of 1996 (TCA), 110 Stat. 56, to promote competition and higher quality in American telecommunications services and to encourage the rapid deployment of new telecommunications technologies….One of the means by which it sought to accomplish these goals was reduction of the impediments imposed by local governments upon the installation of facilities for wireless communications, such as antenna towers."

The Act provides that a local agency can only "deny a request to place, construct, or modify personal wireless facilities" if such denial is supported by "substantial evidence contained in a written record." (47 U.S.C., § 332(c)(7)(B)(iii).) This means that a local agency's decision must be "authorized by applicable local regulations and supported by a reasonable amount of evidence." (*T-Mobile USA Inc. v. City of Anacortes*, 572 F.3d 987, 995 (9th Cir. 2009).)

While the Act preserves local government authority over the placement and construction of wireless facilities, exercise of such local authority "shall not prohibit or have the effect of prohibiting the provision of personal wireless services." (47 U.S.C., § 332(c)(7)(B).) Courts have found that an "effective prohibition" on the provision of wireless services occurs where a local agency denies approval of a wireless facility after a provider demonstrates (1) a significant gap in service coverage and (2) that the manner in which it proposes to fill the significant gap in services is the least intrusive in relation to the land use values set out in local regulations. (*City of Anacortes*, *supra* at 572 F.3d 997-8.)[2] Under *Metro PCS, Inc. v. City of San Francisco*, 400 F.3d 715, 733 (9th Cir. 2005), the significant gap prong is satisfied "whenever a provider is prevented from filling a significant gap in *its own* service coverage." (Emphasis in original).[3]

As discussed below and reflected in the administrative record, AT&T has provided more than substantial evidence that it has a significant coverage gap in the coverage gap area. Substantial evidence also demonstrates that no less intrusive locations or means are available to close the identified coverage gap.

III. A Significant Gap In Wireless Coverage Exists

As discussed in detail on AT&T's Radio Frequency Statement ("RF Statement", attached hereto as **Exhibit A**), AT&T identified a significant service gap in 4G LTE service in an area "roughly bordered by .7 miles north of Empire Grade and Alba Road to the north, Alba Road to the East, Empire Grade and Pine Flat Road to the

[2] The County essentially codified these standards in County Code sections 13.10.660(C)(4) and (G) with respect to the requirements for approval of height exceptions.

[3] In addition to the above, in 2018 the FCC ruled that an effective prohibition occurs whenever the decision of a local agency materially inhibits wireless services. The FCC explained that the "effective prohibition analysis focuses on the service the provider wishes to provide, incorporating the capabilities and performance characteristics it wishes to employ, including facilities deployment to provide existing services more robustly, or at a better level of quality, all to offer a more robust and competitive wireless service for the benefit of the public." (*See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment, Declaratory Ruling and Third Report and Order*, FCC 18-133 (September 27, 2018) ("*Infrastructure Order*") at ¶¶ 34-42) Thus, a local government "could materially inhibit service in numerous ways – not only by rendering a service provider unable to provide existing service in a new geographic area or by restricting the entry of a new provider in providing service in a particular area, but also by materially inhibiting the introduction of new services or the improvement of existing services." (*Id.* at ¶ 37.)

south, and ½ mile west of Empire Grade Road to the west." This area includes large portions of Empire Grade, a well-traveled roadway for vehicles travelling between the Bonny Doon community and population centers to the North and East. The coverage gap area also includes several dozen residences and many commercial and institutional facilities.[4]

The Project would close AT&T's significant coverage gap by adding critically important wireless infrastructure that would provide customers reliable service, in a large area where there is currently no service. The Project would also allow AT&T to support public safety in the area by partnering with FirstNet to provide emergency communication service. This is the nationwide accepted high-quality spectrum for public safety communications.

IV. The Project Is The Least Intrusive Means Of Closing The Significant Gap In Coverage

Substantial evidence in the record demonstrates that: (1) the Project site is the least intrusive means to close AT&T's significant coverage gap; (2) that the Project's proposed 150-foot height is necessary to close the coverage gap and allow for colocation opportunities; and (3) that alternative technologies like small cells are not the appropriate alternative to close AT&T's coverage gap.

A. AT&T Confirmed That No Suitable Alternative Locations Would Close Their Significant Coverage Gap

Recently supplemented application materials demonstrate that AT&T worked hard to carefully select the Project to maintain a sufficient clear line-of-sight for signals to provide adequate service coverage to the gap area. As indicated in the alternatives analysis included in CTI's application, AT&T analyzed three sites in the vicinity and determined that neither would close the identified coverage gap: (1) an existing 79' pole operated by Crown Castle GT Company, LLC at the Crest Ranch Christmas Tree Farm; (2) a proposed new 150-foot pole facility at the Ben Lamond Conservation Camp at 13575 Empire Grade Road; and (3) a proposed new 150-foot tower at the Bonny Doon Fire and Rescue Station at 7276 Empire Grade Road. None of these locations offered the centralized location or site conditions necessary to close the coverage gap.

The record also now includes a detailed analysis by AT&T confirming the infeasibility of locating its wireless facilities on the site of a recently approved HAM radio tower on Patrick Road. As indicated on Exhibits 7 and 8 to the RF Statement, locating the Project at a 140-foot height centerline at Patrick Road would still leave

[4] Some opposition comments rely on AT&T's "Coverage Viewer" on its website to argue that no coverage gap exists. However, as the RF Statement explains, the "Coverage Viewer" only displays approximate coverage, from which actual coverage may vary. On the other hand, the propagation and drive test maps included as exhibits to the RF Statement provide a more accurate depiction of actual coverage gaps in the vicinity of the Project.

a significant gap in coverage south on Empire Grade and in the southeastern portion of the coverage gap area.[5]

B. A Height Of 150 Feet Is Necessary To Close AT&T's Coverage Gap And Allow For Future Collocation Opportunities

As demonstrated in the RF Statement and Exhibits 5 and 6 thereto, AT&T requires a center line height of no less than 130 feet, though 140 feet is its preferable center line height to close its significant coverage gap; a 140-foot centerline height would provide a significant improvement in closing the coverage gap for a meaningfully larger population, which would better attain AT&T's objectives. When accounting for the additional, approximately 10 feet of pole structure to the canopy of the monopine needed, this requires a total facility height of 140 to 150 feet to account for a 130- or 140-foot centerline height. A lower centerline height of 110 or 120 feet would fail to provide coverage in the concentrated residential areas in the southern part of the service gap and along Conifer Lane and would not attain AT&T's coverage objectives.

A tower height of 150 feet (allowing for 140 feet centerline height at the top of the monopole) is necessary to allow for colocation of future carriers at the Project and provide optimal coverage to AT&T. Like AT&T, other carriers are likely to require a centerline height of at least 130 feet to provide wireless service to the area. Accordingly, for the County to implement its policy of requiring collocation of carriers at existing facilities, the County should approve the Project's proposed 150-foot height to allow space for collocation of additional carriers. (*See* County Code, §§ 13.10.660(E)(1) [requiring new wireless communication facilities to be co-located onto existing facilities]; and 13.10.661(D)(3) [requiring all alternatives analyses to explain why co-location is not proposed at existing wireless facilities].)

C. Small Cell And Satellite Systems Would Not Close AT&T's Coverage Gap

Public comments suggest that AT&T should close the identified coverage gap by utilizing small cell or low orbit satellite technology. As the record reflects, none of these alternatives are functionally or technologically feasible.

Regarding small cells, this technology is primarily used in dense urban environments where building density is an issue or where small gaps in coverage exist. In other

[5] We note that the HAM radio tower approved at Patrick Road likely lacks the design components necessary to support collocation of wireless facilities. (*See* RF Statement, at 4.) Before construction of the HAM radio tower, AT&T independently assessed the suitability of the Patrick Road site for a similar facility to the Project in 2020. It decided not to move forward with a facility at Patrick Road because of the lack of ability to close coverage gaps.

words, small cell technology is designed to improve wireless coverage capacity, not coverage -small cells are not a replacement for macro sites like the Project, which are the fundamental building blocks needed to provide coverage where large gaps exist as in the coverage gap area. (*See* "Strengthening Connections Today, While Building for Tomorrow," AT&T, at p. 4., attached hereto as **Exhibit B**). In addition, small cells are characterized by limited lines of sight with lower power signals that quickly dissipate to weak levels, This is especially true hilly areas and areas with dense foliage, like the identified gap area. Reflecting this, AT&T has found that the use of small cells would provide wireless coverage to a significantly smaller population than would be served by the Project.[6] Finally, small cells also lack generator backup, meaning they lack functionality in emergencies with power outage. To conclude, for *several* reasons, small cells are not a feasible alternative for AT&T to close its significant gap in coverage.

A comment also suggested the use of low orbit satellite technology to close the significant coverage gap. AT&T does not offer satellite wireless service, thus, satellite wireless service is not a feasible alternative for AT&T to close its significant gap in coverage.

As an independent basis to rule out these purported technological alternatives, a local government may not require deployment of a specific technology – such as small cell or satellite technology - because the Federal Communications Commission has exclusive authority over technical aspects of wireless communications. *N.Y. SMSA Ltd. P'ship v. Town of Clarkstown*, 612 F.3d 97, 105 (2d Cir. 2010) (local government preempted from dictating alternative technology for providing wireless services); *Bennett v. T-Mobile U.S. Inc.*, 597 F.Supp. 2d 1050, 1053 (C.D. Cal. 2008) (FCC has regulated "every technical aspect of radio communication"); *Public Utility Comm'n of Texas Petition for Declaratory ruling and/or Preemption of Certain Provisions of the Texas Public Utility Regulatory Act of 1995*, Opinion and Order, 13 FCC Rcd 3460, ¶¶ 13, 74 (FCC rel. Oct. 1, 1997) (FCC ruled it is unlawful for a state or locality to specify the "means and facilities" through which a service provider must offer services).

V. Generalized Comments Regarding Purported Facility Impacts Are Not A Basis For Denial

As is often the case with proposed wireless facilities, several public comments were provided that raise concerns regarding the Project's purported aesthetic, property value, safety, and noise impacts. None of these comments provide a lawful basis for the County to deny the Project.

[6] It should also be noted that the installation of un-screened small cell facilities along area roadways is arguably more visually intrusive than the heavily screened and camouflaged Project, which is set back from public roadways. (*See* photo simulations included in pages 42-47, and 64-65 of the staff report.)

A. Purported Aesthetic And Property Value Impacts

Some comments raise concerns regarding the Project's purported aesthetic impacts and impacts on property values in the vicinity of the Project. It is important to note that none of these comments account for the fact that the Project would replace an existing unsightly steel tower, satellite dish, and other unscreened objects. Unlike the existing tower, the Project would incorporate foliage, a bark-like monopole, new tree plantings, and landscaping which would screen the Project from view as much as possible.

Comments regarding the Project's supposed impact on surrounding property values fail to take into account the landscaping and increased screening it proposes versus the existing tower. Also, contrary to comments provided regarding property values, California realtor groups have conducted studies that show residential property values are not negatively impacted by proximity to wireless communications towers.[7]

Finally, we note that general concerns about aesthetics are insufficient as a matter of law to support denial of the Project. Courts within the Ninth Circuit and elsewhere have long agreed that general concerns about aesthetics and property values do not constitute substantial evidence to support denial of a permit to install a wireless telecommunications facility.[8]

B. Purported Health And Safety Concerns

Some comments suggest that the Project would pose a fire hazard and others suggest that the Project would pose health risks associated with radio frequency emissions. These claims lack merit and are not a lawful basis to deny the Project.

With regard to fire hazards, no project specific evidence is provided to support claims that the Project poses a fire risk – all that is offered is anecdotal evidence of fires at wireless facilities owned by other operators, in other states, and several years ago. Contrary to such baseless claims, the Project would be constructed of fire resistant materials in strict compliance with modern building and fire standards. Far from posing an increased fire risk, the Project would improve emergency communications in the area allowing for FirstNet service supported by safe and efficient backup generators that would keep the Project operational during power

---

[7] *See* Joint Venture Silicon Valley Network, *Wireless Communications Initiative Study: Wireless Facilities Impact on Property Values* (Nov. 2012)(analyzed property values for over 1,600 single-family homes; concluded "It is quite clear from the data that the distance from a wireless facility has no apparent impact on the value or sale price").

[8] *See, e.g., California RSA No. 4 v. Madera County*, 332 F.Supp.2d 1291, 1308-09 (E.D. Cal. 2003) (generalized expressions of concern regarding aesthetics or the effect on property values fail to meet the substantial evidence threshold under the Act) (citing *Omnipoint Corp. v. Zoning Hearing Bd.*, 181 F.3d 403, 409 (3d Cir.1999); *Cellular Telephone Co. v. Town of Oyster Bay*, 166 F.3d 490 (2nd Cir. 1999)).

outages. (*See* November 20, 2023 letter from Kevin R. Nida, Senior Public Safety Advisor with FirstNet to Fernanda Dias Pini, [discussing support for the Project and need for FirstNet communication in the area, which is lacking].)

Concerns regarding health impacts from RF emissions are also unfounded. As detailed in the Hammett & Edison report included in the application materials, the Project would comply with prevailing standards for limiting public exposure to radio frequency. The report concludes that "the highest calculated [RF frequency] levels in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration." (Hammond & Edison July 6, 2021 RF Exposure Study, at p. 3.) Because the Project will comply with the FCC's RF exposure standards, the application cannot be denied due to purported environmental effects of radio frequency emissions. (47 U.S.C., § 332(c)(7)(B)(iv).) Moreover, criticisms of the Project that are merely a pretext for health concerns – arguing that property values will be reduced because of proximity to a cell site – are barred by federal law. (*See i.d.*)

C. Purported Noise Impacts

Comments also raise generalized concerns regarding noise created by the Project's backup generators. Project generators would only be operated during emergencies and power outages and during periodic no load daytime testing. The noise study prepared by Hammett & Edison concludes that operation of the Project's generators will comply with all applicable County noise standards at the nearest edge of the subject property and at the property line of the nearest receiving property.

VI. Conclusion

We appreciate County's staff's time and attention to this matter and look forward to working with the County to bring this important wireless and emergency communications facility to the community. As the staff report and proposed findings of approval lay out in detail, substantial evidence exists to support each of the

findings necessary under the County Code for approval of a Commercial Development Permit and Height Exception for a 150-foot facility. Approval of the Project is also required pursuant to the federal Telecommunications Act of 1996. We look forward to attending and participating in the hearing on Friday.

Very truly yours,

MILLER STARR REGALIA

Travis Brooks

Attachments

cc: Sheila McDaniel, Santa Cruz County Planning Department, Sheila.McDaniel@santacruzcountyca.gov
Client

TZB:tzb

EXHIBIT A

AT&T Mobility Radio Frequency Statement
186 Summit Dr., Santa Cruz, CA 95060

AT&T has experienced an unprecedented increase in mobile data use on its network since the release of the iPhone in 2007. AT&T estimates that since introduction of the iPhone in 2007, mobile data usage has increased 470,000% on its network. AT&T forecasts its customers' growing demand for mobile data services to continue. In 2022, wireless data traffic increased to 73.7 trillion megabytes, a 38% increase from 2021, and is expected to increase 58 gigabytes per smartphone per month on average (4x current usage) by 2028. The increased volume of data travels to and from customers' wireless devices and AT&T's wireless infrastructure over limited airwaves — radio frequency spectrum that AT&T licenses from the Federal Communications Commission.

Spectrum is a finite resource and there are a limited number of airwaves capable and available for commercial use. Wireless carriers license those airwaves from the FCC. To ensure quality service, AT&T must knit together its spectrum assets to address customers' existing usage and forecasted demand for wireless services, and it must use its limited spectrum in an efficient manner.

AT&T uses high-band (i.e., 6 GHz and higher), mid-band (i.e., C-band, 2300 MHz, 2100 MHz, and 1900 MHz) and low-band (i.e., 850 MHz and 700 MHz) spectrum to provide wireless service. Each spectrum band has different propagation characteristics and signal quality may vary due to noise or interference based on network characteristics at a given location. To address this dynamic environment, AT&T deploys multiple layers of its licensed spectrum and strives to bring its facilities closer to the customer. The proposed wireless communications facility at 186 Summit Dr., Santa Cruz (the "Property") is needed to close a coverage gap in 4G LTE service in an area roughly bordered by 0.7 miles north of Empire Grade and Alba Road to the north, Alba Road to the east, Empire Grade and Pine Flat Road to the south, and ½ mile west of Empire Grade Road to the west. This portion of Santa Cruz sits along the Empire Grade to the north of Bonny Doon. Within the coverage gap that would be closed, cell and data service is unavailable along Empire Grade, which sees significant travel of vehicles between the community of Bonny Doon and population centers to the North and East. Cell and data service is also unavailable to several commercial and institutional facilities and dozens of residences.

The service coverage gap is caused by inadequate infrastructure in the area. AT&T currently has existing sites in the broader geographical area surrounding the Property but, as Exhibit 1 illustrates, these existing sites do not provide sufficient 4G LTE service in the gap area. To meet its coverage objectives, AT&T needs a new wireless communications facility in the immediate area of the service coverage gap. Wireless telecommunications is a line-of-sight technology, and AT&T's antennas need to be high enough propagate an effective signal throughout the gap area. To meet its coverage objectives for this gap area, AT&T intends to place its equipment on CTI Towers, Inc.'s replacement stealth wireless telecommunications facility disguised as a 150-foot tall pine tree. Denial of this proposed facility or a reduction in height would materially inhibit AT&T's ability to provide and improve wireless services in this area.

It is important to understand that service problems can and do occur for customers even in locations where the coverage maps on AT&T's "Coverage Viewer" website appear to indicate that coverage is available. As the legend to the Coverage Viewer maps indicates, these maps display approximate coverage. Actual coverage in an area may differ from the website map graphics, and it may be affected by such things as terrain, weather, network changes, foliage, buildings, construction, high-usage periods, customer equipment, and other factors.

It is also important to note that the signal losses, slow data rates, and other service problems can and do occur for customers even at times when certain other customers in the same vicinity may not experience any problems on AT&T's network. These problems can and do occur even when certain customers' wireless phones indicate coverage bars of signal strength on the handset. The bars of signal strength that individual customers can see on their wireless phones are an imprecise and slow-to-update estimate of service quality. In other words, a customer's wireless phone can show coverage bars of signal strength, but that customer will still, at times, be unable to initiate voice calls, complete calls, or download data reliably and without service interruptions due to service quality issues.

To determine where equipment needs to be located for the provisioning of reliable service in any area, AT&T's radio frequency engineers rely on far more complex tools and data sources than just signal strength from individual phones. AT&T uses industry standard propagation tools to identify the areas in its network where signal strength is too weak to provide reliable service quality. This information is developed from many sources including terrain and clutter databases,

which simulate the environment, and propagation models that simulate signal propagation in the presence of terrain and clutter variation. AT&T designs and builds its wireless network to ensure customers receive reliable in-building service quality. This level of service is critical as customers increasingly use their mobile phones as their primary communication devices. According to the Center for Disease Control and Prevention (CDC), more than 83% of California adults, and more than 98% of Californians under age 18, rely exclusively or primarily on wireless communications in their homes. And California households rely on their mobile phones to do more (E911, video streaming, GPS, web access, text, etc.). In fact, California reported to the FCC that there were more than 23.2 million wireless calls and 95,539 texts to 911 in 2021 (the most recent year for state level data).

The proposed facility at the Property is also a part of AT&T's commitment to supporting public safety through its partnership with FirstNet, the federal First Responder Network Authority. Conceived by the *9/11 Commission Report* as necessary for first responder communications, Congress created the federal First Responder Network Authority, which selected AT&T to build and manage FirstNet, the first-ever nationwide first-responder wireless network. The proposed facility will provide new service on Band 14, which is the nationwide high-quality spectrum set aside by the U.S. government for public safety. Deployment of FirstNet in the subject area will improve public safety by putting advanced wireless technologies into the hands of public safety agencies and first responders.

Exhibit 1 to this Statement is a map of the existing 4G LTE service coverage (without the proposed installation at the Property) in the area at issue. It includes 4G LTE service coverage provided by other existing AT&T sites. The green shaded areas of the map depict acceptable in-building coverage. In-building coverage means customers are able to place or receive a call on the ground floor of a building. The yellow shaded areas depict areas within a signal strength range that provide acceptable in-vehicle service coverage. In these areas, an AT&T customer should be able to successfully place or receive a call within a vehicle. The blue and white shading depicts areas within a signal strength range in which a customer might have difficulty receiving a consistently acceptable level of service. The quality of service experienced by any individual customer can differ greatly depending on whether that customer is indoors, outdoors, stationary, or in transit. Any area in the yellow, blue, or white category is considered inadequate service coverage and constitutes a service coverage gap.

AT&T conducted a drive test to measure actual signal strength in the area. Exhibit 2 provides the drive test results, which validate the significant service coverage gap depicted in Exhibit 1.

Exhibit 3 is a map that predicts 4G LTE service coverage based on signal strength in the vicinity of the Property if the proposed facility is constructed as proposed in the application. As shown by this map, constructing the proposed facility at 150 feet with a 140 foot center line (CL) closes this significant service coverage gap. Exhibit 4 shows the predicted coverage with a slightly lower CL of 130 feet instead of 140 feet. We are expecting to be able to cover Conifer Lane to the south with at least the Outdoor-Coverage service level. The 130 foot CL would be the lowest we would accept for a suitable design at this location.

Exhibits 5 (120 feet) and 6 (110 feet) show that those respective lower tower heights at the proposed location would not close AT&T's significant service coverage gap. And Exhibit 7 demonstrates that a replacement tower at the Patrick Road location (the existing HAM radio tower would likely not support collocation) also would not close AT&T's significant service coverage gap. Exhibit 8 illustrates the comparison between the proposed tower and the Patrick Road location.

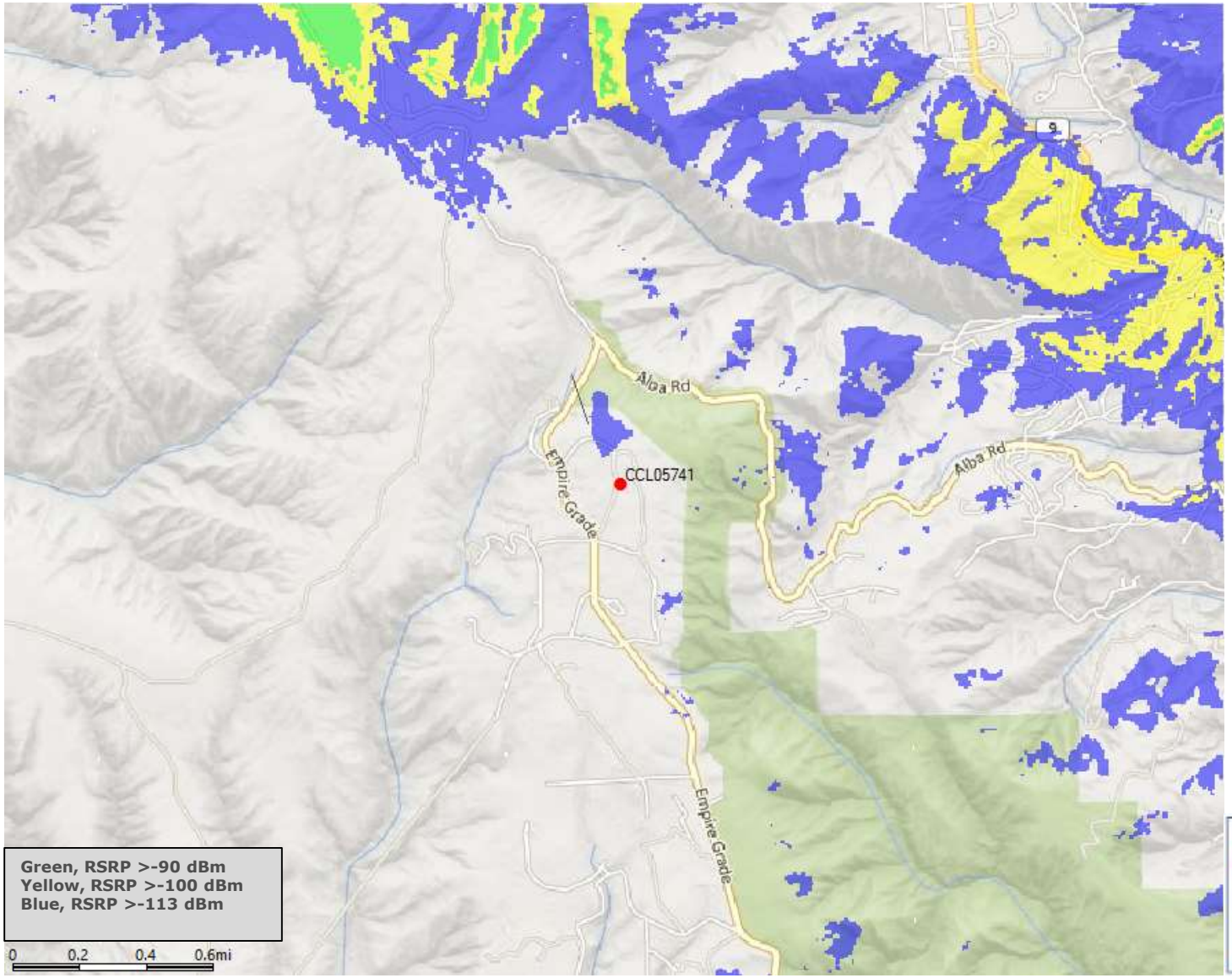
My conclusions are based on my knowledge of the Property and with AT&T's wireless network, as well as my review of AT&T's records with respect to the Property and its wireless telecommunications facilities in the surrounding area. I have a Bachelor of Science Degree in Electrical and Electronic Engineering from California State University Sacramento and have worked as an engineering expert in the wireless communications industry for more than 23 years.

/s/ James Temple
James Temple
AT&T Mobility Services LLC
Network, Planning & Engineering
RAN Design & RF Engineering
November 2023

23313291v1

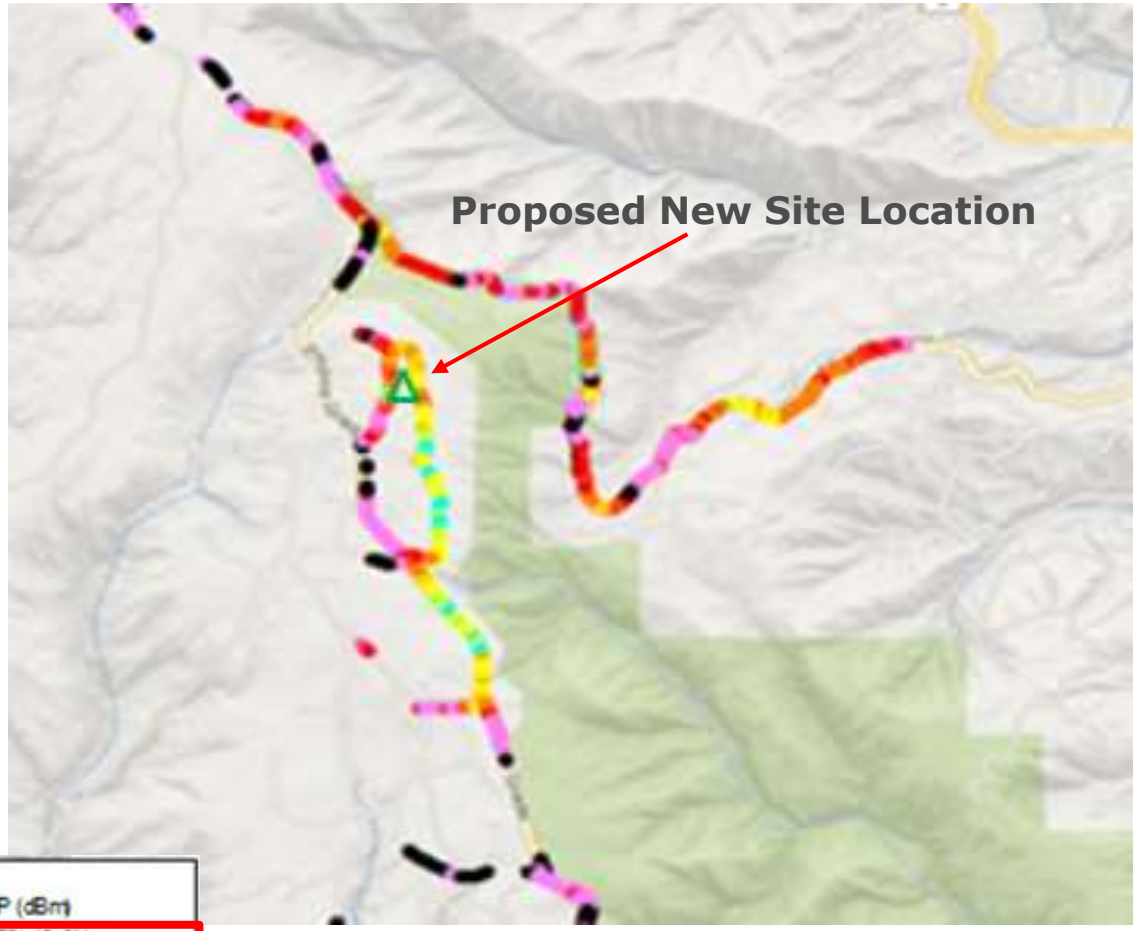
Existing LTE 700 Coverage

Exhibit 1



Drive Test RSRP

Exhibit 2



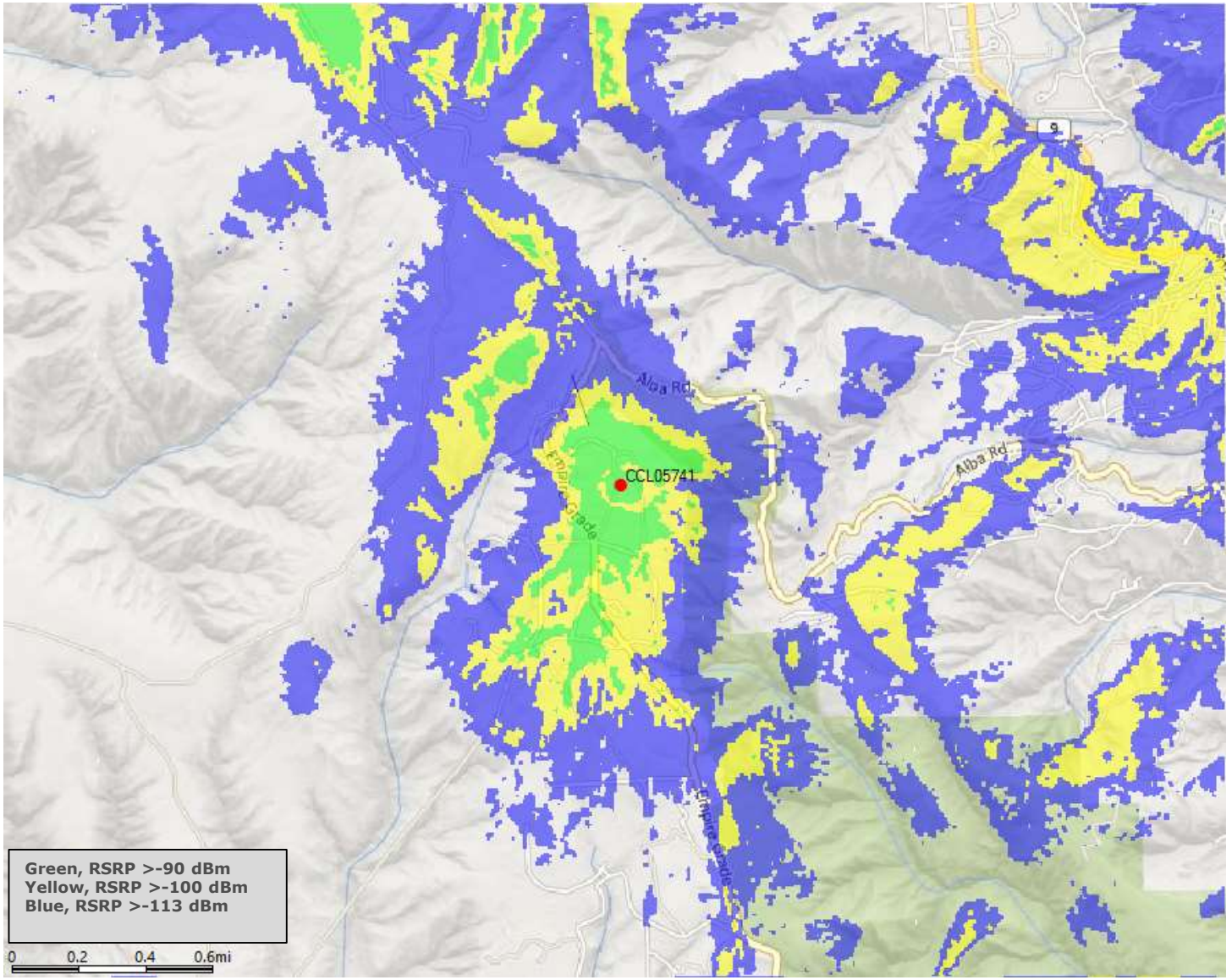
UE1-LTE_UE_RSRP (dBm)
- Below -124.00 (376) 13.6%
- >= -124.00 to < -118.00 (588) 21.3%
- >= -118.00 to < -115.00 (301) 10.9%
- >= -115.00 to < -110.00 (415) 15.0%
- >= -110.00 to < -105.00 (513) 18.5%
- >= -105.00 to < -95.00 (250) 9.0%
- >= -95.00 to < -85.00 (33) 1.2%
- Above -85.00 (291) 10.5%

Signal levels inside red box considered to be very weak and constitute an indoor-service coverage gap

at&t

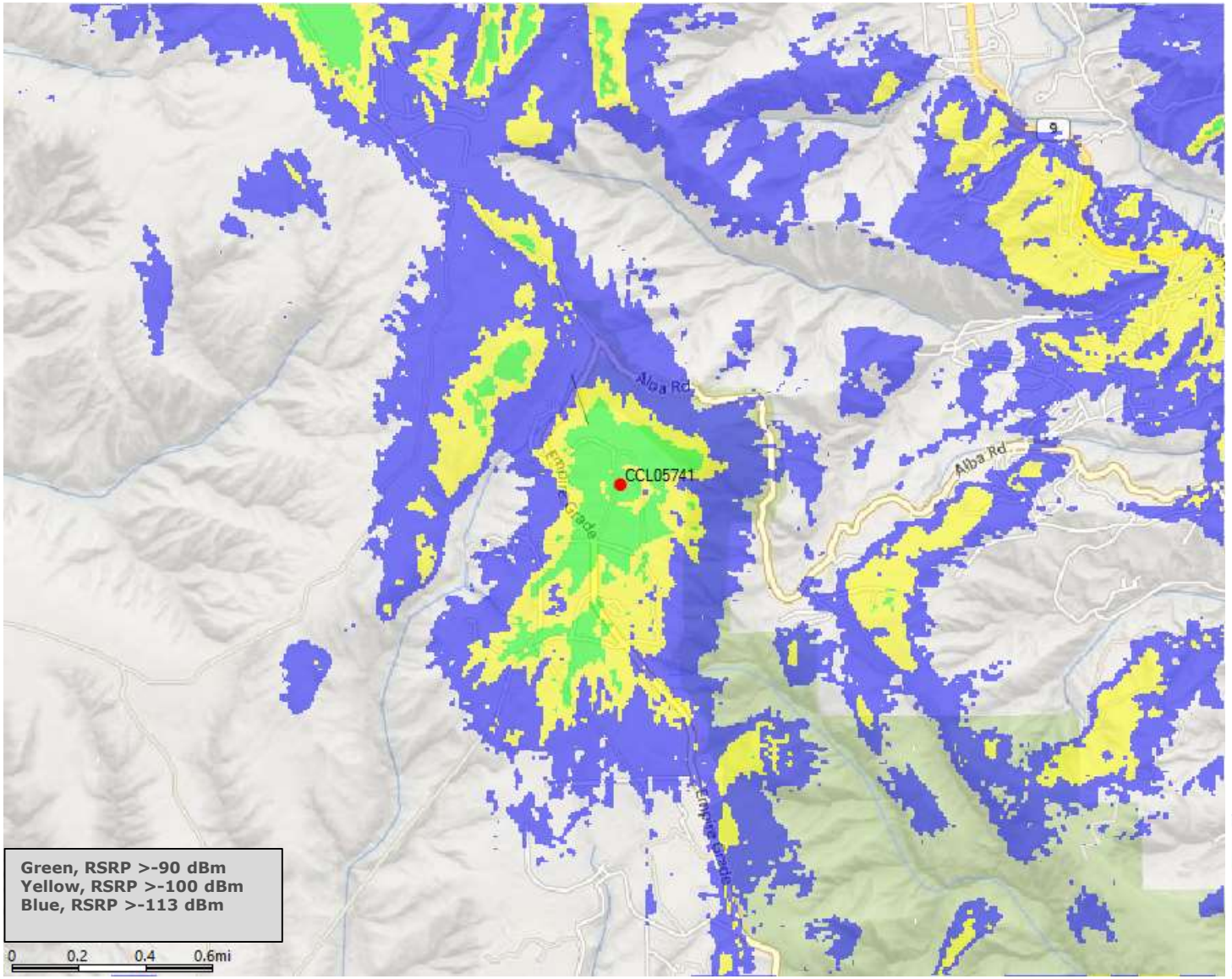
CTI Tower CL @ 140’ LTE 700 Coverage

Exhibit 3



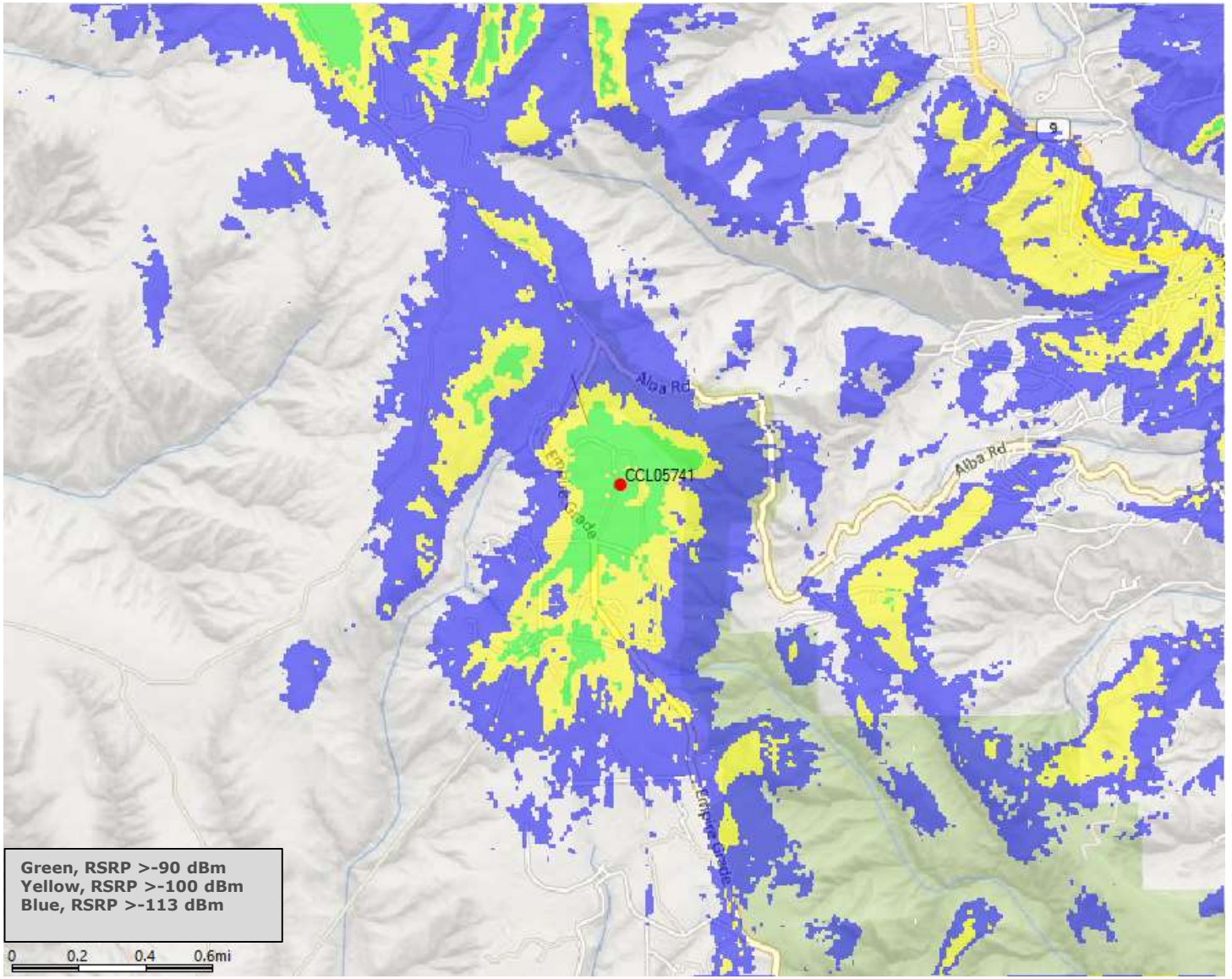
CTI Tower @ 130’ LTE 700 Coverage

Exhibit 4



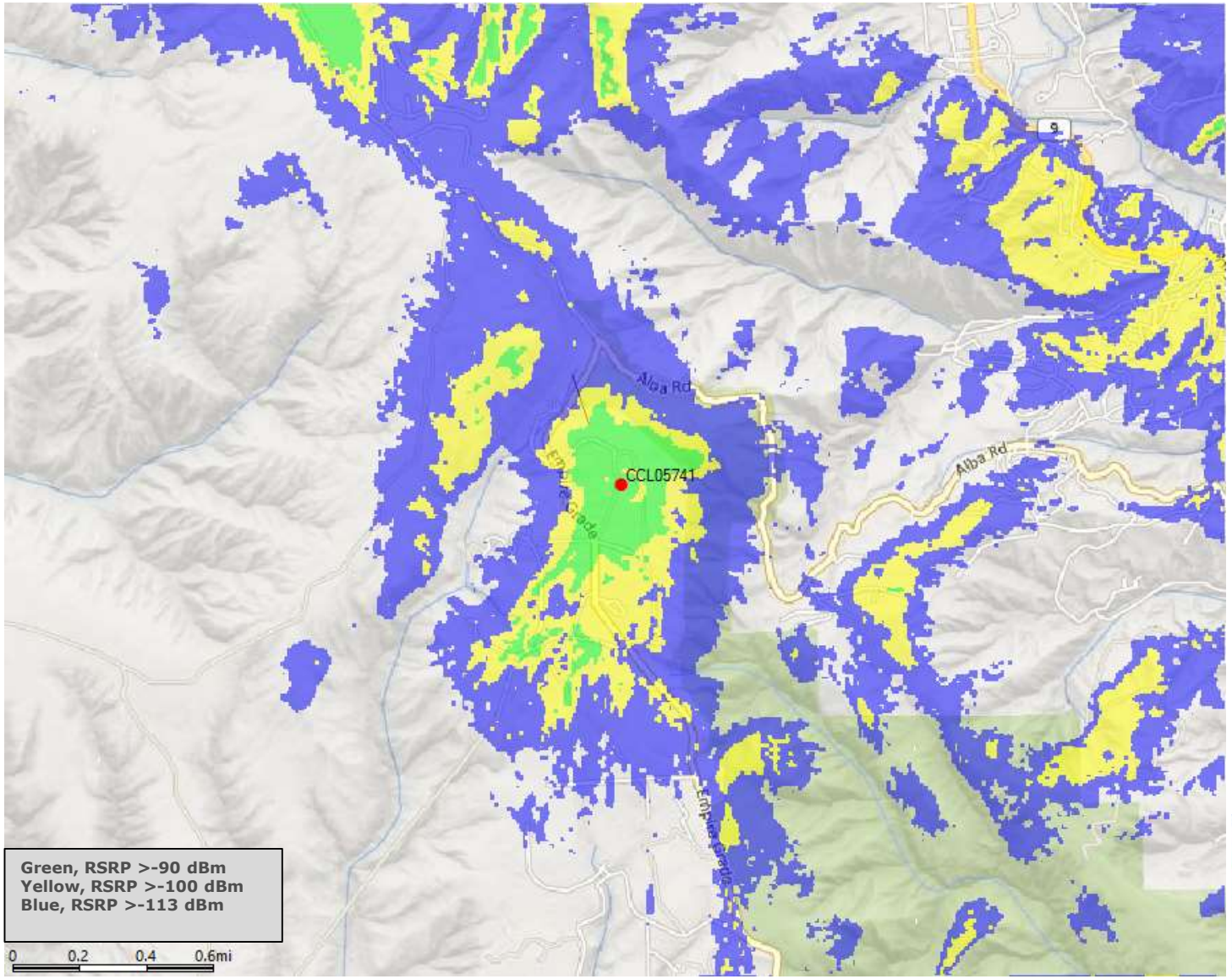
CTI Tower @ 120’ LTE 700 Coverage

Exhibit 5



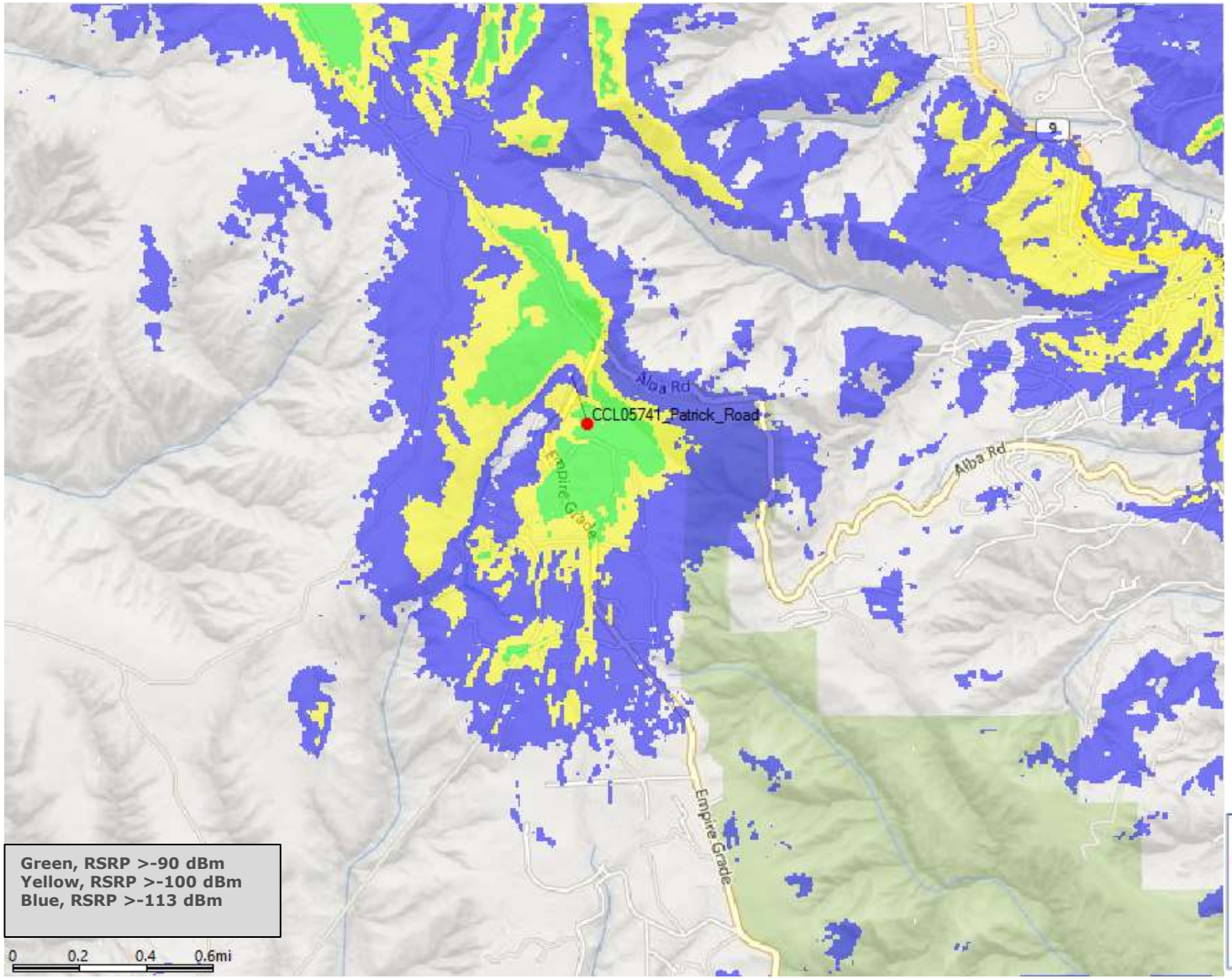
CTI Tower CL @ 110’ LTE 700 Coverage

Exhibit 6



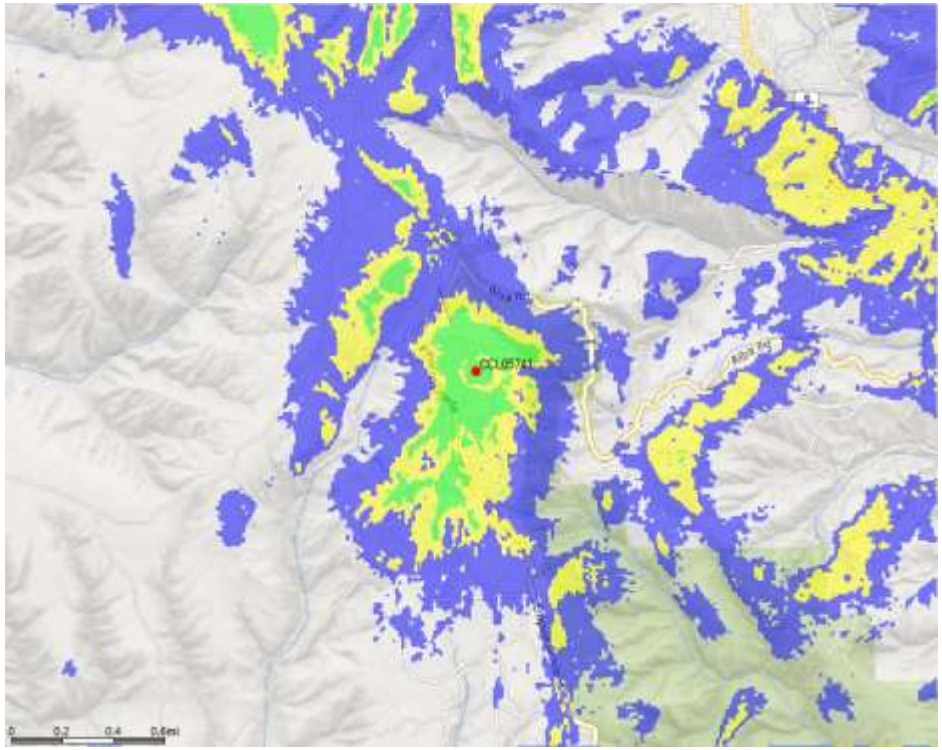
Patrick Road CL @ 140’ LTE 700 Coverage

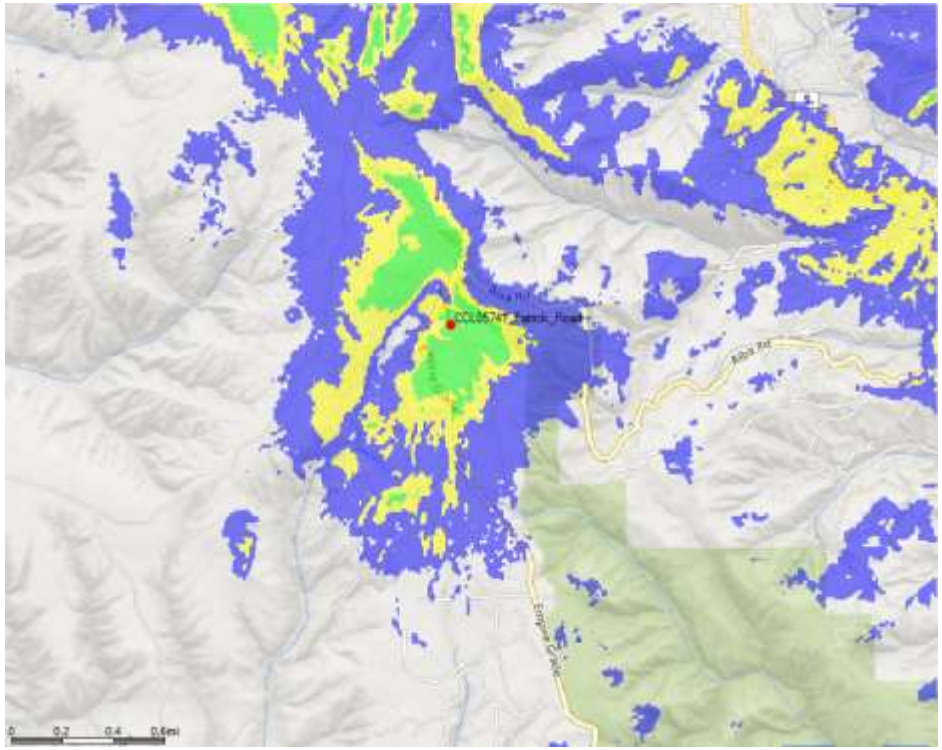
Exhibit 7



CTI Tower CL @ 140’ vs. Patrick Road CL 140’ LTE 700 Coverage

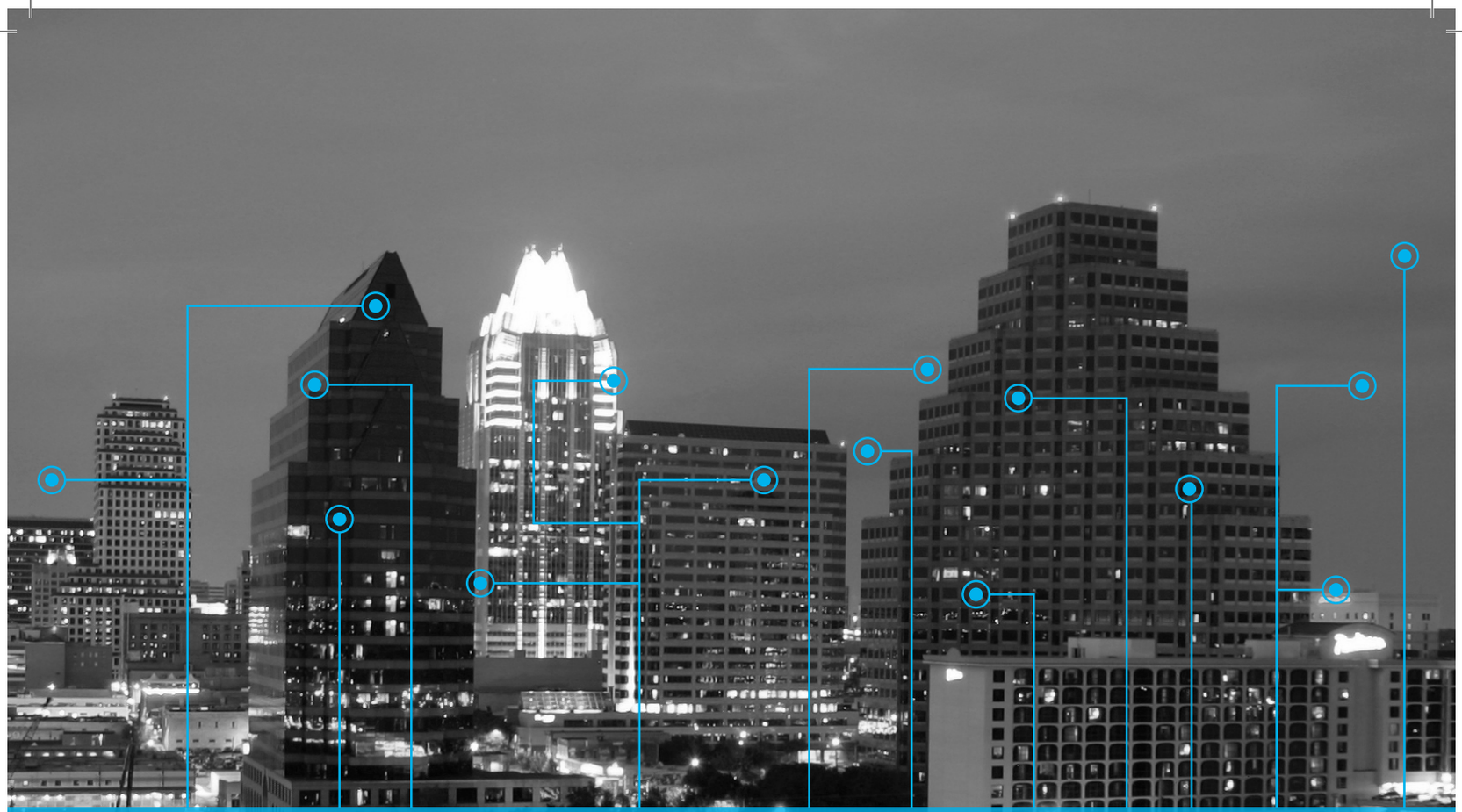
Exhibit 8





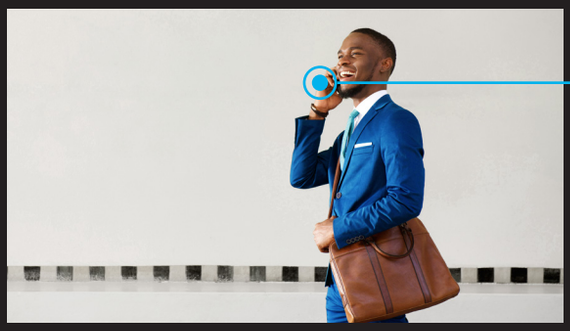
Green, RSRP >-90 dBm
Yellow, RSRP >-100 dBm
Blue, RSRP >-113 dBm

EXHIBIT B

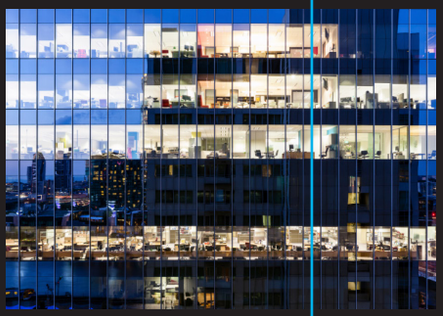


Strengthening connections today, while building for tomorrow.

AT&T



Bringing you the connectivity you want, when you want it.



People everywhere are using connected devices for nearly everything.

- By 2022, **nearly 80%** of the U.S. population will have a smartphone.[1,2]
- Consumers are expected to spend over **$122B** in app stores in 2019 – **double** the size of the global box office market. This level of growth is **5x as fast as the overall global economy**.[3]
- The number of connected devices is expected to reach 25 billion by 2021 – each of which will be managed and accessed through an application.[4]

Businesses are taking advantage of mobile technology to knock down barriers and more effectively compete in our global economy.

- As of early 2018, in-app and mobile purchases accounted for **67% of sales** in the U.S., with the total app economy generating **$334B** in revenue from in-app sales and advertising.[4,5]
- The wireless industry has a direct impact on the U.S. economy: creating nearly **5M jobs, contributing $475B to GDP, and generating $1T in economic output**.[6]

All of these apps and resources use a lot of data. To accommodate this surge in data without driving prices sky-high for our customers, we must operate our network more efficiently. And, small cells can help us do just that.

Small cells can be readily deployed and deliver increased data capacity. They help enable higher connection speeds and bring an overall better wireless experience to customers today. Small cells also help lay a foundation for our **network to handle the technologies of the future—such as 5G, smart cities, autonomous cars and the Internet of Things**.









Homeowners are rapidly abandoning landlines in favor of mobile phones making reliable wireless connectivity at home an important factor consideration for home buyers and renters.

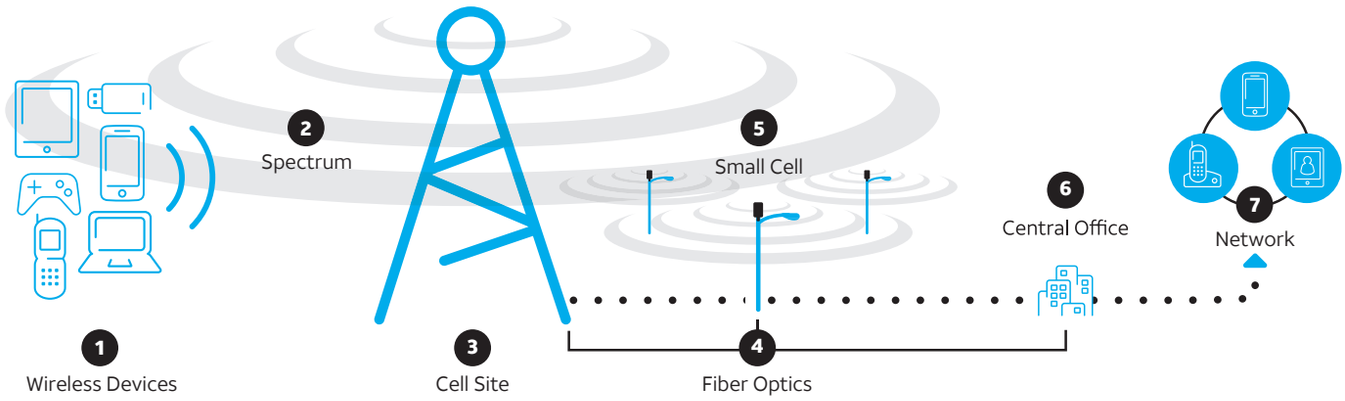
- **Across nearly 400M connections, one in five** Americans access home internet exclusively through their smartphone.[7]
- Americans depend more on wireless service for communication in addition to internet access: as of 2017, more than **half of American homes (52.5%) only had wireless telephones**.[8]
- When moving, Americans value reliable wireless service (67%) more than affordable housing (60%), good schools (65%), and good commute time (41%).[9]

Cities are turning to wireless networks and mobile technology to operate smarter and more efficiently.

- In 2018, mobile phones will be surpassed in numbers by IoT devices, which are expected to reach **1.5B** globally by 2022.[10]
- Smart City solutions applied to vehicles and electric grids could produce **$160B** in benefits and savings through reductions in energy usage, traffic congestion and fuel costs.[11]

How Wireless Networks Work

Modern communication networks help drive innovation and improve the way consumers connect with each other, with their entertainment and with their communities.



1. Wireless Devices
Wireless devices need a network to operate. The network is part radio-based (wireless) and part wired.

2. Spectrum
Spectrum is the airwaves over which wireless communications (calls, texts, email, internet traffic, etc.) travel to and from wireless devices via cell sites.

3. Cell Site
Cell sites connect wireless devices to the network using copper and fiber optic wires. Once transmitted from the cell tower to the network, the data of a "wireless" call is virtually indistinguishable from the other data traveling across the network – e.g. traditional landline calls, texts, emails and the internet data. Cell sites are connected in a pattern of overlapping cells that allow users to remain connected while on the move.

4. Fiber Optics
Fiber optic lines are the modern equivalent of copper wire, but instead of using electricity to transmit information, fiber uses pulses of light to transport internet-based data. This technology can support much more data and transmit it faster than traditional copper lines. For example, on a typical fiber cable, a 1 gigabit per second signal can travel over 35 miles without being degraded as compared to only 300 feet over a copper line.[12]

5. Small Cells
Small cells play a key role in meeting the increased demand by delivering the network flexibility and reliability our customers depend on. Small cells "densify" AT&T's network and to bring the network "closer" to its users. This allows us to provide a better LTE experience today while also allowing us to prepare for future developments in technologies such as smart cities and new developments in the Internet of Things (IoT).

6. Central Office (Wireless Switch Building)
At the central office, home and business lines connect to the network. The central office has equipment that routes calls locally or to long-distance carrier facilities.

7. Network
The network consists of all the facilities (wires, antennas, equipment, etc.) and spectrum that we use to deliver data and content (voice, internet and video) that allow customers to use their devices (phones, computers, tablets, SmartGrid, etc.) to communicate better and faster.

Cell Sites Come in Many Forms

Traditional Macro Sites
Standard antenna facilities that often provide optimal coverage and capacity. Traditional macro cell sites are typically installed atop free-standing towers, roof tops and other taller structures. Macro cells are the fundamental building blocks needed to enable high-speed mobile internet. Along with playing a key role in connecting a large number of devices to the network at the same time, macro cells have the ability to provide service over a broad area as their coverage radius is measured in miles.

Small Cells
Small cells are light weight, low power, precisely targeted solutions that can cover a radius up to 1,500 feet. They can be readily deployed to specific locations, including those where customers are prone to experience connectivity issues, heavily populated areas that need more network capacity—like a downtown area—or in areas that can't effectively be served by a traditional macro cell due to topography, high concentrations of buildings, or other man-made obstacles.

The public right-of-way—where sidewalks, electric and light utlities are located—is an ideal place for this small wireless infrastructure.

Distributed Antenna Systems (DAS)
Distributed Antenna Systems are flexible solutions that help connect customers to our wireless services in areas that have high concentrations of users. DAS is effective in large venues—like arenas, convention centers or stadiums—that already have service but need added capacity as large numbers of customers access AT&T's network at the same time.

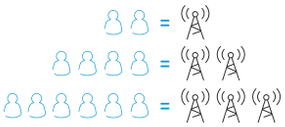
DAS uses a group of antennas that divide data traffic into smaller, more manageable sections, which enhances capacity and connectivity speeds.

Wireless Cell Site Selection

We are always analyzing our network to deliver the best, most reliable service to our customers, no matter where they are, and to help prevent capacity and coverage gaps. In addition to the strengths and challenges of each cell site type, AT&T must consider the following factors as well:

Topography: Wireless networks depend on radio waves that travel through the air. If an area is very hilly, more sites are needed to cover the area since there is shadowing from the terrain. Consider how a hill blocks the suns rays at sunset.

Signal Handoff: For wireless calls to maintain connectivity as a customer drives or walks down a street, the signals from one cell site must overlap with the signals of the next cell site.



Distribution of demand: In more dense traffic and population areas, we need to have more sites in order to provide the needed capacity.

Regulations: AT&T must meet strict regulations set by the Federal Communications Commission—as well as applicable local, state and federal regulatory agencies and laws.

Property Availability: In addition to all the science and planning that goes into properly locating a cell site, AT&T must also comply with state and local laws governing use of the ROW or find a property owner that's willing to have an antenna facility placed on their property.

Small Cells & Safety

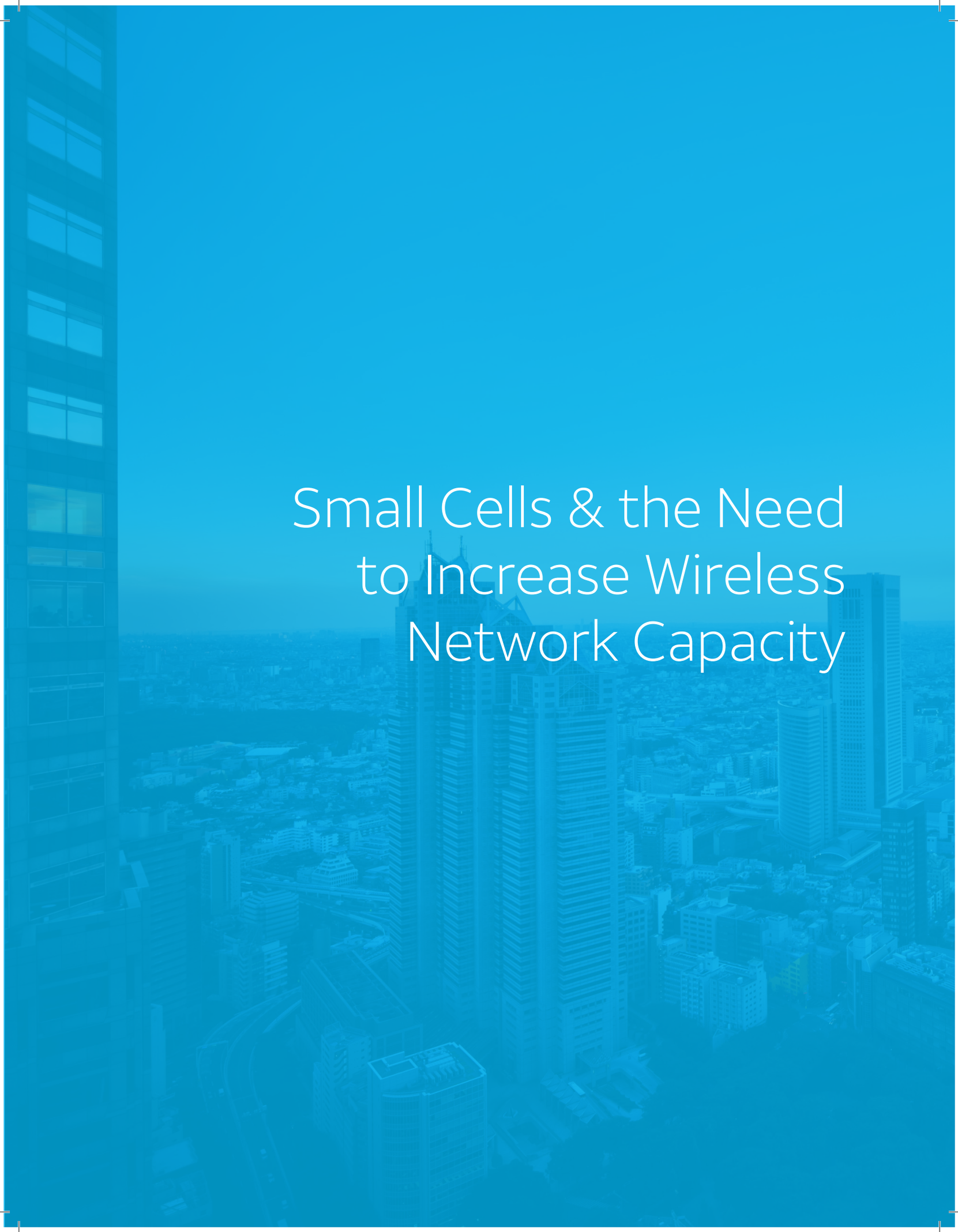
In our modern world, radio frequency is everywhere.

Radio Frequency (RF) energy and wireless technologies have been used for more than a century. Mobile phones and wireless antennas use RF energy to send voice and text messages, as well as photos and videos. RF enables things like home electronics in kitchens, living rooms and bedrooms.

Wireless antennas operate at low power levels to minimize interference with other antennas.

Expert scientists and government agencies from organizations like the American Cancer Society, World Health Organization and FCC have stated repeatedly that wireless antennas operating in compliance with FCC regulations do not pose health concerns.

Our wireless facilities, including small cell antennas, are designed and operated to comply with FCC regulations.



Small Cells & the Need to Increase Wireless Network Capacity

As consumers and businesses are using mobile devices more often to connect with their world, their work and their entertainment, our network capacity must be upgraded to keep pace with surging demands for data.

Ways to Increase Wireless Network Capacity

1. *Deploy more spectrum*
   - Spectrum is ***not readily available***

2. *Improve spectrum efficiency*
   - Repurposing existing spectrum
   - e.g., reassigns 3G spectrum to 4G LTE

3. *Add more macro (cell sites) cells*
   - Optimal for low density areas

4. *Add more small cells*
   - Offloads surrounding macro sites to reduce the need for new cell towers

Why Small Cells?

Consumer demand for data is growing exponentially and will continue to grow as mobile video streaming becomes even more prominent. This increase in data use requires an increase in wireless network capacity—otherwise, service quality could be disrupted or decline.

However, wireless providers' ability to provide additional capacity and faster connectivity speeds to support the data heavy technologies and apps consumers are using in their everyday lives has become constrained by spectrum availability.

So, to keep up with these surging demands, operators must change their network architectures to more efficiently use spectrum, and the best path forward is network densification—which means small cells, and plenty of them.

This is why we are investing in and deploying small cells in states across the country. Small cells help us bolster network capacity, better meet surging consumer and business demand for more data and faster connectivity while preparing our network for the next generation of technologies and services—like 5G, the Internet of Things and smart cities.

AT&T

Sources

1 Statista, Number of smartphone users in the United States from 2010 to 2022; available at: https://www.statista.com/statistics/201182/forecast-of-smartphone-users-in-the-us/
2 Statista, Total population in the United States from 2012 to 2023; available at: https://www.statista.com/statistics/263762/total-population-of-the-united-states/
3 App Annie, 2019 in Mobile: 5 Things You Need to Know, December 2018; available at: https://www.appannie.com/en/insights/market-data/2019-in-mobile-5-things-to-know/
4 Deloitte, The App Economy in the United States, August 2018; available at: http://actonline.org/wp-content/uploads/Deloitte-The-App-Economy-in-US.pdf
5 Criteo, Mobile Commerce Growth 2017, February 2018; available at: https://www.criteo.com/insights/mobile-commerce-q4-2017/
6 Accenture Strategy, How The Wireless Industry Powers The U.S. Economy, 2018; available at: https://www.accenture.com/t20180404T025245Z__w__/us-en/_acnmedia/PDF-74/Accenture-Strategy-Wireless-Industry-Powers-US-Economy-2018-POV.pdf#zoom=50
7 CTIA, The State of Wireless, 2018; available at: https://api.ctia.org/wp-content/uploads/2018/07/CTIA_State-of-Wireless-2018_0710.pdf
8 NCHS, Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, June 2017; available at: https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201712.pdf
9 CTIA, The Wireless Industry - Industry Data; available at: https://www.ctia.org/the-wireless-industry/infographics-library?topic=35
10 Ericsson, Internet of Things Forecast; available at: https://www.ericsson.com/en/mobility-report/internet-of-things-forecast
11 Accenture Strategy, Smart Cities - How 5G Can Help Municipalities Become Vibrant Smart Cities, 2017; available at: https://www.accenture.com/t20170222T202102__w__/us-en/_acnmedia/PDF-43/Accenture-5G-Municipalities-Become-Smart-Cities.pdf
12 Broadband Communities, What Fiber Can Do For Your Community, page 4, http://www.bbcmag.com/Primers/BBC_Nov15_Primer.pdf

March 25, 2023

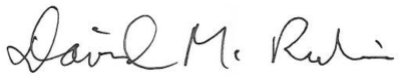
To Whom It May Concern:

The Rural Bonny Doon Association (RBDA) is writing to support the decision to approve CTI's application to modify the cell tower at 186 Summit Drive, Santa Cruz, 95060. Our support is based in part on AT&T's stated commitment to maintain the cell tower on Empire Grade, in addition to adding cell services to the new tower. We are concerned that replacing the existing Empire Grade tower with the new one on Summit Drive might result in a net reduction of cell coverage where Bonny Doon residents live and drive.

The RBDA has been advocating for improved communications infrastructure in our community since before the CZU fire. We have held community meetings and discussions with representatives from AT&T, Verizon, Comcast, Cruzio, PG&E, California Public Utilities Commission Public Advocate's Office, Santa Cruz County Supervisor Justin Cummings and his predecessor Ryan Coonerty, and Assemblymember Mark Stone's staff. This application to modify the Summit Drive cell tower is the only improvement that has been formally proposed by any provider to improve communications in Bonny Doon. Although other technologies such as distributed antenna systems might provide even better communications services in Bonny Doon, no provider has expressed an interest in deploying them.

For these reasons, the RBDA supports CTI's application.

Sincerely,



David Rubin, RBDA Chair