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File No.  
2464.130

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VIA EMAIL - brian.campbell@rpvca.gov

**AND HAND-DELIVERY**

Brian Campbell, Mayor  
and Members of the City Council  
City of Rancho Palos Verdes  
30940 Hawthorne Boulevard  
Rancho Palos Verdes, CA 90275

Re: Crown Castle: Appeal of Wireless Telecommunications Facility ASG32

Dear Mayor Campbell and Members of the City Council,

This office is legal counsel for Crown Castle NG West LLC (“Crown Castle”) in the above-referenced appeal (“Appeal”). This letter presents Crown Castle’s legal rights under both federal and state law and presents an analysis of those rights as they pertain to the Appeal.

**1. INTRODUCTION.**

At the center of the Appeal is Crown Castle’s application for a Wireless Telecommunications Facility Permit ASG32 within the City of Rancho Palos Verdes (“City”) public right-of-way (“ROW”) on Scotwood Drive, adjacent to 29504 Whitley Collins Drive (“Project”). The Project is a low-power, small cell telecommunications facility that serves as an integral and vital part of a larger telecommunications and broadband network in the City.

**A. Original Proposal.**

As originally proposed the Project would feature a new, 25-foot, six-inch marbelite streetlight replacement pole, with two 21.4-inch panel antennas mounted under the luminaire. (See **Exhibit A**, Original Design Photo-simulations.) The replacement streetlight would replace the existing 25-foot, six-inch streetlight, and therefore would not result in a net increase in height from the existing condition. Radios, which convert light spectrum from fiber-optic cable into radio frequency (“RF”) spectrum, an SCE power meter and a disconnect box would be located in or on a ground-mounted cabinet adjacent to the pole. (*Ibid.*; see also Staff Report: City of Rancho Palos Verdes Planning Commission (Aug. 30, 2017) (“Staff Report”) at p. 3.)

**B. Second Proposed Design.**

After conferring with the City’s Planning Department Staff (“Staff”) concerning less intrusive design alternatives, Crown Castle revised the Project to locate the proposed antennas above the luminaire arm. The antennas would be housed in a two-foot tall, two-foot outside diameter canister that would extend the height of the Project to 28 feet. A tapered skirt would provide a gradual visual transition from the antenna canister to the diameter of the pole below the canister. See **Exhibit B**, Second Design Proposal Photo-simulations.) Instead of locating the radios and associated equipment in an above-ground cabinet, the equipment would be placed in

1333 N. CALIFONIA BLVD  
SUITE 600  
WALNUT CREEK, CA 94596  
T 925 988 3200  
F 925 988 3290

895 DOVE STREET  
5TH FLOOR  
NEWPORT BEACH, CA 92660  
T 949 854 7000  
F 949 854 7099

3993 HOWARD HUGHES PKWY  
SUITE 530  
LAS VEGAS, NV 89169  
T 702 777 7500  
F 702 777 7599

underground vaults that would cover approximately 43 square feet of surface area. (*Ibid.*) The vaults and associated vents would be flush with the ground. (See Staff Report at p. 3.) An excerpted photo-simulation of the Second Design Proposal is presented here:



After conducting a view impact analysis, the Staff concluded that the Second Proposed Design would not result in individual or cumulative view impacts. (Staff Report at pp. 5-7.) Staff noted that Crown Castle had examined additional alternative locations. (*Id.* at pp. 13-14.) Staff determined that the proposed location was the “preferred” location and that the Project was the “least intrusive means” of filling the existing gap in service at that site. (*Id.* at pp. 10-11, 14.) At the August 30, 2017, Planning Commission hearing, Commission Nelson pressed the Planning Director as to whether the Project met the City’s standards; the Planning Director confirmed that it did comply. (See Video of August 30, 2017, Planning Commission hearing, [https://www.rpvca.gov/155/Planning-Commission.](https://www.rpvca.gov/155/Planning-Commission))

The Planning Commission nevertheless denied the Project. The commissioner raising the denial motion (Emenhiser) cited only general opposition to telecom facilities in residential areas and “neighborhood opposition” as the bases for the motion. Other commissioners cited nothing beyond conclusory grounds for their support of that motion. No commissioner cited any evidence to support the denial. Some commissioners opined that there was no significant gap in service, despite the conclusions of their own RF expert who concluded that “coverage deficiencies” existed in the area and resulted in a gap in service. (Staff Report at pp. 12-13.) The Planning Commissioners voting against the Project provided no direction on what design or

location alternatives might be considered less intrusive. Crown Castle timely filed this appeal to the City Council, pursuant to City of Rancho Palos Verdes Municipal Code (“RPVMC”) sections 12.18.060 (D) and 17.80.030 (A).

### C. Third Proposed Design.

In the wake of the Planning Commission’s motion to deny the Project, Crown Castle’s engineers took a hard look at the Project with an eye toward arriving at a slimmer profile, more stealth design. Their goal was to see what designs could be feasibly employed to address the generalized aesthetic concerns raised at the Planning Commission. The constraints faced by Crown Castle in this endeavor are those posed by the radio frequency (“RF”) objectives that must be achieved to fill the existing significant gap in service at this location. For small cell gaps in coverage, such as this, the tolerances for achieving network objectives are tight.

Nevertheless, the Crown Castle team worked with AT&T to arrive at a yet smaller canister for the street sign location. The canister would be 14.6 inches in diameter, as opposed to 24 inches in diameter. A tapered skirt at the base of the canister would provide a visual transition from the canister to the streetlight pole. The canister still top out at 28 feet, one inch. A conceptual photo-simulation of this third revised design is attached at **Exhibit C**. This third revision represents the smallest design solution for the Project; the reduction in size and profile has a resultant negative impact on the Project’s ability to fill the significant gap in service. Crown Castle and AT&T nevertheless are willing to accept the reduced signal strength to achieve a mutually acceptable solution. As for locational alternatives, no least intrusive site exists in the Project area. (See discussion, *infra*, at Part 3 A.) As excerpted photo-simulation of the Third Proposed Design is presented here:



## 2. APPLICABLE LEGAL STANDARDS FOR APPROVAL.

### A. STATE LAW.

Crown Castle is a “competitive local exchange carrier” (“CLEC”). CLECs qualify as a “public utility” and therefore have a special status under state law. By virtue of the CPUC’s issuance of a “certificate of public convenience and necessity” (“CPCN”), CLECs have authority under state law to “erect poles, posts, piers, or abutments” in the ROW subject only to local municipal control over the “time, place and manner” of access to the ROW. (Pub. Util. Code, §§ 1001, 7901; 7901.1; see *Williams Communication v. City of Riverside* (2003) 114 Cal.App.4th 642, 648 [upon obtaining a CPCN, a telephone corporation has “the right to use the public highways to install [its] facilities.”].)

#### (1) Public Utilities Code Sections 7901, 7901.1.

The CPUC has issued a CPCN which authorizes Crown Castle to construct the Project pursuant to its regulatory status under state law. Crown Castle’s special regulatory status as a CLEC gives rise to a vested right under Public Utilities Code section 7901 to use the ROW in the City to “construct ... telephone lines along and upon any public road or highway, along or across any of the waters or lands within this State” and to “erect poles, posts, piers, or abutments for supporting the insulators, wires, and other necessary fixtures of their lines, in such manner and at such points as not to incommode the public use of the road or highway[.]” (Pub. Util. Code, § 7901.) The nature of the vested right was described by one court as follows:

... “[I]t has been uniformly held that [section 7901] is a continuing offer extended to telephone and telegraph companies to use the highways, which offer when accepted by the construction and maintenance of lines constitutes a binding contract based on adequate consideration, and that the vested right established thereby cannot be impaired by subsequent acts of the Legislature. [Citations.]” ... Thus, telephone companies have the right to use the public highways to install their facilities.

(*Williams Communications v. City of Riverside, supra*, 114 Cal.App.4th at p. 648 quoting *County of L. A. v. Southern Cal. Tel. Co.* (1948) 32 Cal.2d 378, 384 [196 P.2d 773].) <sup>1</sup>

Given the vested nature of the section 7901 right, Crown Castle contends that a discretionary use permit -- like the Conditional Use Permit required by the City in this case -- constitutes an unlawful precondition for a CLEC’s entry into the ROW. (See, e.g., Michael W. Shonafelt, *Whose Streets? California Public Utilities Code Section 7901 in the Wireless Age*, 35 HASTINGS COMM. & ENT. L. J. 371 (2013).) In a recent case, *T-Mobile West LLC v. City and County of San Francisco* (2016) 3 Cal.App.5th 334 [2016 Cal. App. LEXIS 769], the First Appellate District, Division Five, determined that aesthetic considerations are appropriate in

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<sup>1</sup> Notwithstanding the submittal of this application, Crown Castle reserves its rights under Public Utilities Code sections 7901 and 7901.1, including the right to proceed with construction of its networks without having to obtain a local franchise and/or discretionary grant of entry in to the ROW.

determining whether a facility “incommodes” the ROW. That case is being appealed to the California Supreme Court. The court did not decide the specific issue of whether obtaining a discretionary use permit is a lawful precondition to exercising the section 7901 franchise rights.

Public Utility Code section 7901.1 -- a sister statute to section 7901 -- grants local municipalities the limited “right to exercise reasonable control as to the time, place, and manner in which roads, highways, and waterways are accessed[.]” Nevertheless, such controls cannot have the effect of foreclosing use of the ROW or otherwise prevent the company from exercising its right under state law to “erect poles” in the ROW. That is because “the construction and maintenance of telephone lines in the streets and other public places within the City is today a matter of state concern and not a municipal affair.” (*Williams Communication v. City of Riverside, supra*, 114 Cal.App.4th at p. 653.) Moreover, section 7901.1 specifies that such controls, “to be reasonable, shall, at a minimum, be applied to all entities in an *equivalent* manner.” (*Ibid.*, emphasis added.) Accordingly, to the extent that other public utilities are authorized to use the ROW in the City without having to obtain a discretionary land use permit, such disparate treatment may run afoul of the “equivalent manner” provision of Public Utilities Code section 7901.1.

On the basis of Crown Castle’s status as a CLEC, and its concomitant rights to the ROW, the Project is designed as part of an ROW telecommunications system. With respect to the siting and configuration of the Project, the rights afforded under Public Utilities Code section 7901 and 7901.1 apply. Crown Castle reserves its rights under section 7901 and 7901.1, including, but not limited to, its right to challenge any approval process, that impedes or infringes on Crown Castle’s rights as a CLEC.

**(2) Government Code Section 65964.1.**

Recently, the California Legislature echoed the courts’ oft-repeated declaration that “the construction and maintenance of telephone lines in the streets and other public places within the City is today a matter of state concern and not a municipal affair.” (*Williams Communication v. City of Riverside, supra*, 114 Cal.App.4th at p. 653.) It did so in the context of enacting AB 57 in October 2015. AB 57 is codified as Government Code section 65964.1. Under section 65964.1, if a local government fails to act on an application for a permit to construct a wireless telecommunications facility within the prescribed Shot Clock timeframes (150 days for a standalone site and 90 days for a collocation site), the application is deemed approved by operation of law. When it enacted section 65964.1, the Legislature observed that:

The Legislature finds and declares that a wireless telecommunications facility has a significant economic impact in California and is not a municipal affair as that term is used in Section 5 of Article XI of the California Constitution, but is a matter of statewide concern.

(Gov. Code, § 65964.1, subd. (c).)

**B. FEDERAL LAW.**

The approval of the Project also is governed by the federal Telecommunications Act of 1996, Pub. L. No 104-104, 110 Stat. 56 (codified as amend in scattered sections of U.S.C., Tabs

15, 18, 47) (“Telecom Act”). When enacting the Telecom Act, Congress expressed its intent “to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.” (110 Stat. at 56.) As one court noted:

Congress enacted the TCA to promote competition and higher quality in telecommunications services and to encourage the rapid deployment of new telecommunications technologies. Congress intended to promote a national cellular network and to secure lower prices and better service for consumers by opening all telecommunications markets to competition.

*(T-Mobile Central, LLC v. Unified Government of Wyandotte, 528 F.Supp. 2d 1128, 1146-47 (D. Kan. 2007).* One way in which the Telecom Act accomplishes those goals is by reducing impediments imposed by local governments upon the installation of wireless communications facilities, such as antenna facilities. (47 U.S.C. § 332(c)(7)(A).) Section 332(c)(7)(B) provides the limitations on the general authority reserved to state and local governments. Those limitations are set forth as follows:

- (1) State and local governments may not unreasonably discriminate among providers of functionally equivalent services (§ 332 (c)(7)(B)(i)(I)).
- (2) State and local governments may not regulate the placement, construction or modification of wireless service facilities in a manner that prohibits, or has the effect of prohibiting, the provision of personal wireless services (better known as the “effective prohibition clause”) (§ 332 (c)(7)(B)(i)(II)).
- (3) State and local governments must act on requests for authorization to construct or modify wireless service facilities within a reasonable period of time (§ 332 (c)(7)(B)(ii)).
- (4) Any decision by a state or local government to deny a request for construction or modification of personal wireless service facilities must be in writing and supported by substantial evidence contained in a written record (§ 332 (c)(7)(B)(iii)).
- (5) Finally, no state or local government or instrumentality thereof may regulate the placement, construction or modification of personal wireless service facilities on the basis of the perceived environmental effects of radio frequency emissions to the extent that such facilities comply with FCC regulations concerning such emissions (§ 332 (c)(7)(B)(iv)).

**3. UPHOLDING THE PLANNING COMMISSION’S DENIAL WOULD RESULT IN A VIOLATION OF THE TELECOM ACT’S PROHIBITION OF SERVICE PROVISION.**

As noted above, section 332(c)(7)(B)(i)(II) of the federal Telecom Act bars local governmental decisions from precluding the provision of wireless services:

The regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof—

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(II) shall not prohibit or have the effect of prohibiting the provision of personal wireless services.

(47 U.S.C. § 332(c)(7)(B)(i)(II).) In *T-Mobile U.S.A. Inc. v. City of Anacortes* (9th Cir. 2009) 572 F.3d 987, the Ninth Circuit Court of Appeals set forth a two-step analysis for determining whether a local government’s denial has the effect of prohibiting the provision of wireless telecommunications services in violation of Section 332(c)(7)(B)(i)(II) of the Telecommunications Act of 1996. In the first step, the applicant must make a showing of a “significant gap” in service. (*Id.* at p. 995.) In the second step, the applicant must demonstrate it has selected the “least intrusive means” to fill that gap in service. (*Ibid.*) Each prong of the Prohibition of Service Provision is addressed below.

**A. A Significant Gap in Service Exists at the Project Site.**

**(1) What Is a Significant Gap?**

“Significant gap” is a legal term of art developed by the courts to guide a determination of whether a local government’s decision on an application prohibits a carrier or other wireless infrastructure developer from providing service. (See, e.g., *T-Mobile USA, Inc. v. City of Anacortes, supra*, 572 F.3d at p. 995.) Put simply, “a locality could violate the [Telecom Act’s] effective prohibition clause if it prevented a wireless provider from closing a ‘significant gap’ in service coverage.” (*Id.*, at p. 995; *MetroPCS, Inc. v. City of San Francisco* (9th Cir., 2005) 400 F.3d 715, 731.)

Significant gap is “a contextual term that must take into consideration the purposes of the Telecommunications Act itself.” (*T-Mobile Northeast LLC v. Loudoun County Bd. of Supervisors* (4th Cir. 2014) 748 F.3d 185, 198.). Among the goals of the Telecom Act are to “promote competition,” “secure . . . higher quality services for American telecommunications consumers,” and “encourage the rapid deployment of new telecommunications technologies.” (*Ibid.*) Significant gap therefore is a fluid term that invariably rests on a fact-intensive analysis. The interpretation of the term must progress with the rapid development of wireless broadband technologies in order to advance the larger goals of the Telecom Act to “encourage the rapid deployment of new telecommunications technologies.” On that basis, the courts have counseled against “mechanical” or fixed formulas that become outdated and therefore impede technological advancement. (See, e.g., see *T-Mobile Northeast LLC v. Fairfax Cnty. Bd. of Supervisors* (4th Cir., 2012) 672 F.3d 259, 267 [“reviewing courts should not be constrained by any specific formulation, but should conduct a fact-based analysis of the record, as contemplated by the [Telecom Act].”].) As the Fourth Circuit Court of Appeals noted in a recently published decision:

The technology of 10 years ago may have only supported wireless service that had substantial gaps in coverage and high dropped call rates. But the technology of today supports increased wireless

coverage with reduced rates of dropped calls. On this trajectory, the technology of tomorrow may support 100% coverage with no dropped calls, and the focus may instead be on subtler issues about the nature and strength of signals for particular uses. The [TCA] clearly intends to encourage this technological development and, to that end, to protect such development from interference from state and local governments when approving the design and location of facilities. This is manifested in § 332(c)(7)(B). Thus, in construing the level of service protected by § 332(c)(7)(B)(i)(II), we must take a contextual approach and cannot rely on any specific formula.

(*T-Mobile Northeast LLC v. Loudoun County Bd. of Supervisors*, *supra*, 748 F.3d at p. 198.)

In keeping with the principle of cutting-edge concepts of what constitutes a “significant gap,” the courts have upheld the use of in-building minimum standards as a proper benchmark for determining whether a significant gap in coverage exists. (See, e.g., *MetroPCS Inc. v. City and County of San Francisco* (N.D.Cal. 2006) 2006 U.S. Dist. LEXIS 43985 [“careful reading of existing cases that contain a significant gap analysis persuades the court that any analysis should include consideration of a wireless carrier’s in-building coverage.”]; see also, *AT&T Mobility Servs., LLC v. Vill. of Corrales* (10th Cir., 2016) 642 Fed. Appx. 886, 891.)

Moreover, it is important to note that a telephone network may reveal adequate “coverage” but inadequate “capacity.” The distinction between coverage and capacity may be better understood in terms of transportation infrastructure. A two-lane road may provide “coverage,” but once that two lane road experiences high-levels of urban rush-hour traffic, coverage becomes irrelevant, since the road does not have sufficient “capacity” to handle the higher traffic volumes. In other words, a network may have adequate coverage, but inadequate capacity, which results in the *same problem*: an impermissibly high level of dropped and blocked calls.

The need to fill the existing significant coverage gap to a level that allows adequate in-building coverage and to address growing capacity demands is underscored by the greater numbers of customers dropping their landlines and relying solely on wireless telecommunications for their phone service. The following additional considerations promote a policy of employing more sophisticated notions of significant gap:

- (a) In a recent international study, the United States dropped to fifteenth in the world in broadband penetration, well behind South Korea, Japan, the Netherlands and France.<sup>2</sup>
- (b) Over 50 percent of all American homes are now wireless only.<sup>3</sup>
- (c) More and more civic leaders and emergency response personnel cite lack of a

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<sup>2</sup> Organization for Economic Co-operation and Development (OECD) Directorate for Science, Technology, and Industry, “Broadband Statistics,” (June 2010): <[www.oecd.org/sti/ict/broadband](http://www.oecd.org/sti/ict/broadband)>.

<sup>3</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics (Released 05/2017); <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201705.pdf>.

robust wireless network as a growing public safety risk. The number of 911 calls placed by people using wireless phones has significantly increased in recent years. It is estimated that about 70 percent of 911 calls are placed from wireless phones, and that percentage is growing.<sup>4</sup>

- (d) Data demand from new smartphones and tablets is leading to a critical deficit in spectrum, requiring more wireless antennas and infrastructure. According to a 2011 report, wireless data traffic was 110 percent higher than in the last half of 2010. Similarly, AT&T reports that its wireless data volumes have increased 30-fold since the introduction of the iPhone.<sup>5</sup>
- (e) Wireless data traffic grew by a factor of 300 percent between 2010 and 2015.<sup>6</sup> Global mobile data traffic is expected to reach a seven-fold increase by 2021.<sup>7</sup>

Determining what constitutes a “significant gap” therefore must incorporate metrics that are based -- not just on basic cell phone coverage -- but also on network capacity for advanced communications technologies. As more Americans depend on wireless communications technologies and smartphones, reliable network capacity and in-building coverage are critical. These are some of the reasons courts now recognize that a “significant gap” can exist on the basis of capacity needs and inadequate in-building coverage. (See, e.g., *MetroPCS Inc. v. City and County of San Francisco*, *supra*, U.S. Dist. LEXIS 43985; *T-Mobile Central, LLC v. Unified Government of Wyandotte County* (D.Kans. 2007) 528 F.Supp.2d 1128.)

Wireless telecommunications are the primary mode of communication for Americans in the twenty-first century. That fact is amply demonstrated by the latest surveys in the industry, which reveal that over 49 percent of American homes rely wholly on wireless devices.<sup>8</sup> The marginal service currently at the Project site is inadequate to sustain current -- and future -- communications technologies and demands. In a recent report, the “National 911 Program,” which is an office housed within the National Highway Traffic Safety Administration, found that “76 percent of consumers are using cellular phones to make calls to 911 while 21 percent are using wireline phones.”<sup>9</sup> On that ground alone, ***this is a matter of health, safety and welfare*** for the residents and visitors of the City. Notably, 911 service over systems like this is not just limited to AT&T users -- the networks carries 911 calls of any mobile user.

## (2) ***Data Support a Significant Gap at the Project Site.***

Applying the above principles to the Project, data reveal that the project service area has insufficient signal strength to address current data demand and statistical projections of data demand. Crown Castle has undertaken drive-test data of existing conditions at the Project site in

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<sup>4</sup> Federal Communications Commission (2012) <http://www.fcc.gov/guides/wireless-911-services>.

<sup>5</sup> Executive Office of the President Council of Economic Advisors (White House, Feb. 2012) at 2-6.

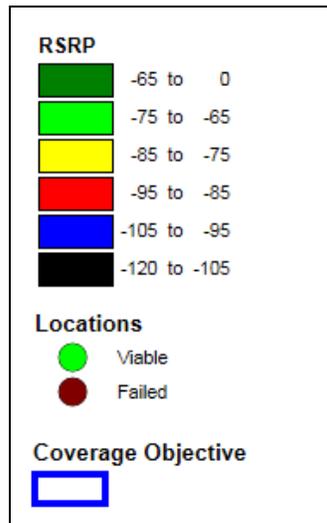
<sup>6</sup> <https://www.ctia.org/industry-data/wireless-quick-facts>.

<sup>7</sup> <http://digitalconquerer.com/news/cisco-mobile-visual-networking-index-vni-forecasts-seven-fold-increase-global-mobile-data-traffic-2016-21/>

<sup>8</sup> See CTIA Annual Survey Report (<http://www.ctia.org/industry-data/ctia-annual-wireless-industry-survey>)

<sup>9</sup> See <https://www.911.gov/pdf/National-911-Program-2015-ProfileDatabaseProgressReport-021716.pdf>

two different frequencies that will be employed at the Project site. (See ASG07-Proposed Primary and Alternate Node Analysis, attached as **Exhibit D**.) Exhibit D identifies levels of service in terms of the following criteria:

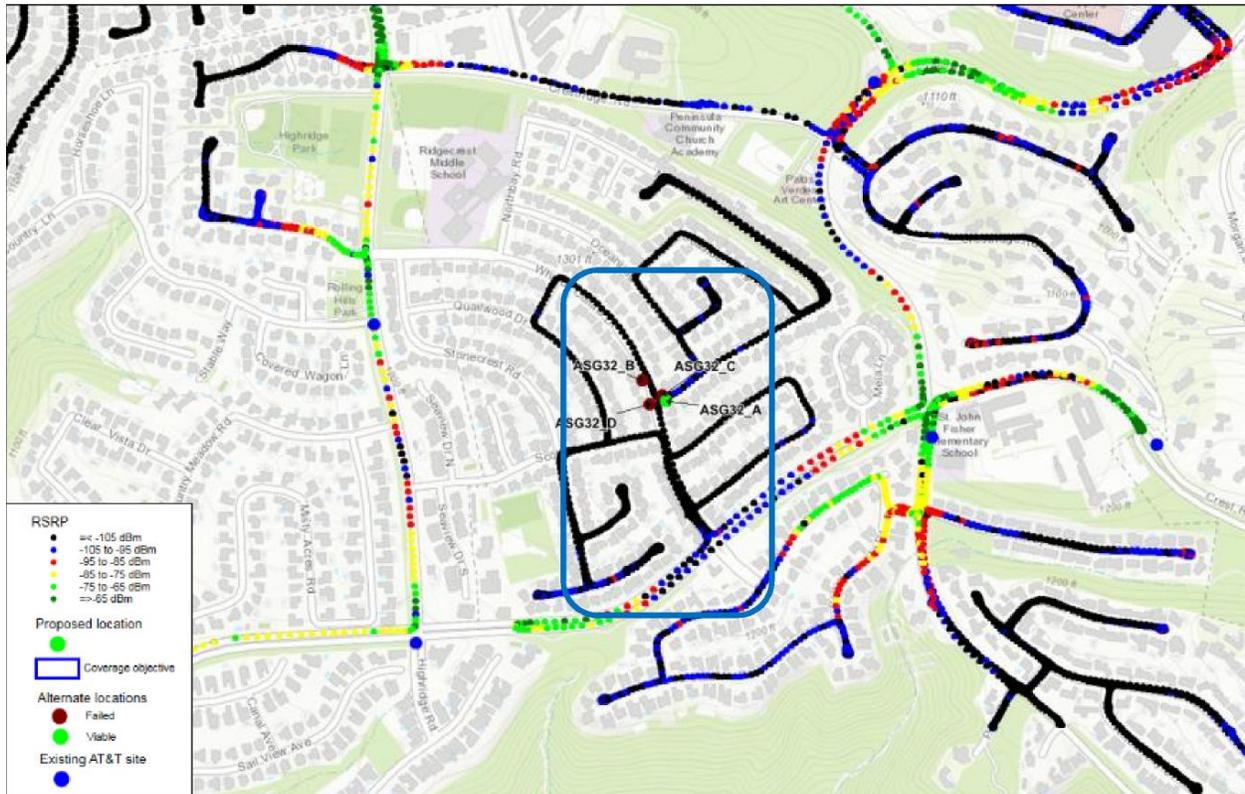


- (a) Outdoor Only – Unacceptable Coverage (Black) (>-105 dBm);
- (b) In-Vehicle Only – Unacceptable Coverage (Blue) (>-95 dBm);
- (c) Suburban/In-building, Acceptable (Red) (>-85 dBm);
- (d) Urban/In-building, Acceptable (Yellow) (>-75 dBm);
- (e) Dense Urban/Deep In-building, Optimum (Light/Dark Green) (>-75 dBm).

Each level is characterized by a minimum signal level. The key to coverage is having a signal level strong-enough to allow customers to maintain contact with the network so they can make and maintain calls. Signal level, the strength of the radio signal customers’ devices receive, is measured in negative decibels per milliwatt (“dBm”). The larger the negative dBm number, the weaker the coverage. For example, a signal strength of -100 dBm is weaker than a signal strength of -80 dBm.

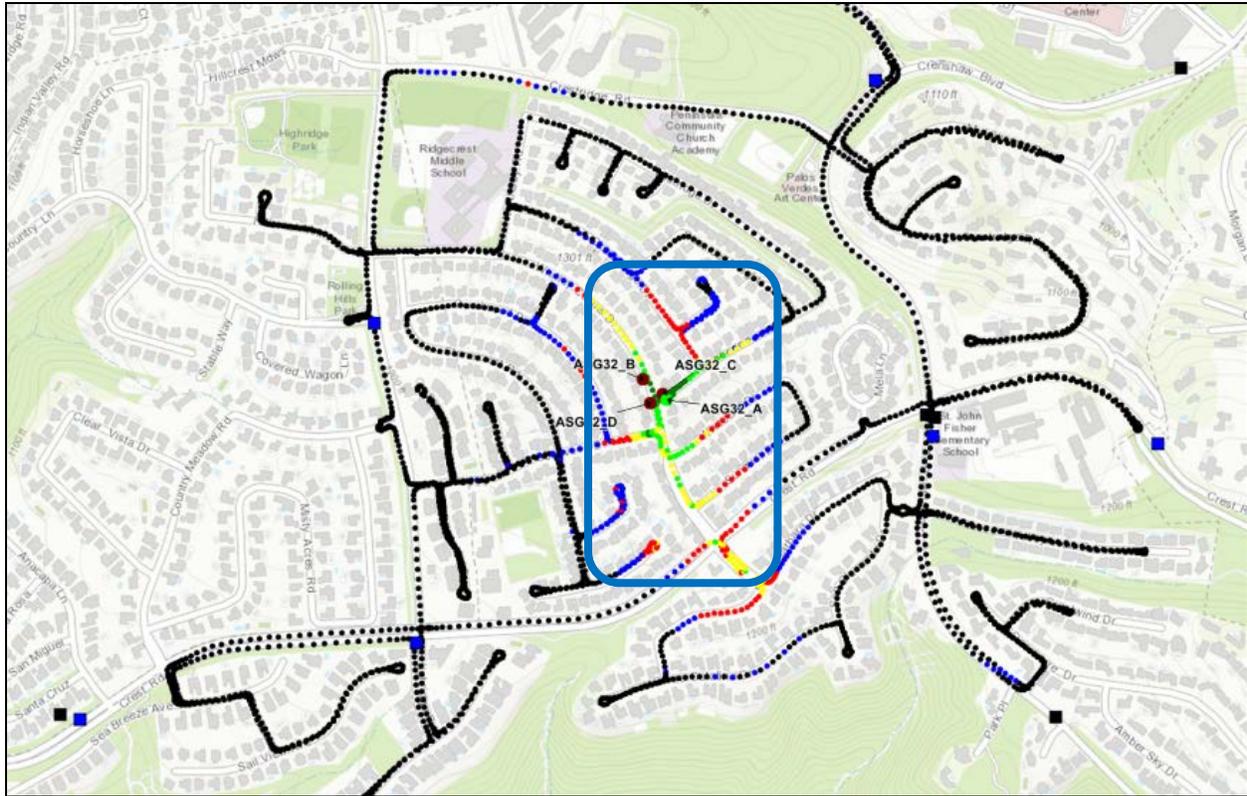
As a general rule, a minimum signal level of -75 dBm (yellow) is required for adequate in-building coverage and a minimum of -95 dBm (blue) is required for adequate in-vehicle coverage. As noted, the courts have upheld the use of in-building minimum standards as a proper benchmark for determining whether a significant gap in coverage exists. (See, e.g., *Verizon Inc. v. City and County of San Francisco* (N.D.Cal. 2006) 2006 U.S. Dist. LEXIS 43985 [“careful reading of existing cases that contain a significant gap analysis persuades the court that any analysis should include consideration of a wireless carrier’s in-building coverage.”].) Generally, there is a direct correlation between the height of the antenna and the strength of the service. In this case, Crown Castle’s design seeks to strike a balance between service penetration and antenna height by targeting a minimum service level of -75 dBm, which is sufficiently powerful to reach indoor users while avoiding poles that may be too obtrusive.

Slide 4 of Exhibit D reveals existing RF coverage at the project site.



This slide reveals that the existing coverage varies from -95 to -120 dBm at 1900 MHz. In the existing condition, users in the service area will experience an increasingly higher percentage of blocked and dropped calls for outside use, with a commensurate decline in signal strength as one moves toward the inside of existing buildings and homes. Moreover, as more and more users connect to the network, the number of dropped and blocked calls will increase, since more users results in more demand on the network and resultant capacity problems. In short, there is a serious capacity deficit within the service radius of the Project site. 911 calls in this area would be unreliable.

If the Project is approved and allowed put on-air, however, coverage and capacity problems will be addressed, as can be seen in Exhibit D, Slide 6, which is excerpted here (following page):



The Project will provide sufficient signal strength to ensure not only adequate signal for mobile and outdoor users, but reliable in-building coverage for all those customers who may seek to abandon their home landlines. The Project also will add sufficient capacity to address new data demands from smartphones and tablets. Wireless customers must be able to count on a level of service commensurate with that once provided by their dropped landlines. Such considerations are relevant -- if not critical -- to a determination of significant gap. (See, e.g., *T-Mobile Central LLC v. City of Fraser* (E.D. Mich. 2009) 675 F.Supp.2d 721 [considering failure rate of 911 emergency calls.])

One of the grounds invoked by the Planning Commission for denial of the Project was a conclusory assertion that Crown Castle failed to demonstrate a significant gap in service. The drive test data presented in Exhibit D refute that contention. Nor has this data been seriously controverted by any competent evidence. Indeed, the City's own RF expert concurred with the conclusion of Crown Castle's RF engineers that RF service in this area is below industry standards and that a gap indeed exists at the project site. (Staff Report, pp. 12-13.) The Planning Commission is charged with addressing zoning and planning issues, not the regulation of RF, which is a matter preempted by the Federal Communications Commission (FCC). The City engaged CTC as an independent RF expert pursuant to Rancho Palos Verdes Municipal Code section 12.18.050. For areas -- such as RF coverage issues -- that are outside the scope of the Planning Commission's competency and jurisdiction it should look to the conclusions of its hired

consultants and the actual data compiled by RF experts, not the unsupported assertions of project opponents.

**B. Crown Castle Has Demonstrated That It Has Chosen the Least Intrusive Means to Fill the Significant Gap in Service.**

To establish least intrusive means, the applicant establishes a “prima facie showing of effective prohibition by submitting a comprehensive application, which includes consideration of alternatives, showing that the proposed [wireless communications facility] is the least intrusive means of filling a significant gap.” (*T-Mobile U.S.A. Inc. v. City of Anacortes, supra*, 572 F.3d at p. 995.) After that, the burden shifts to the local government: “When a locality rejects a prima facie showing, it must show that there are some potentially available and technologically feasible alternatives.” (*Id.* at p. 998.) The court further explained that the applicant then has an opportunity to “dispute the availability and feasibility of the alternatives favored by the locality.” (*Ibid.*)

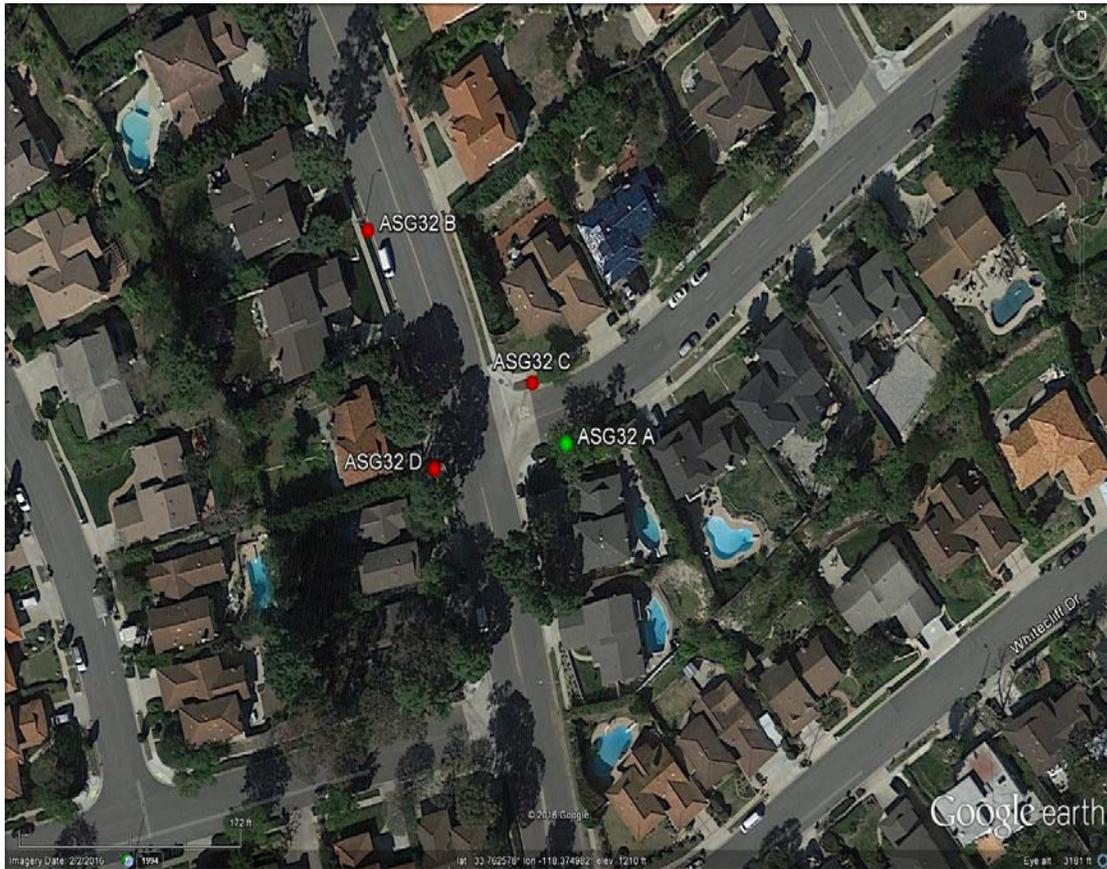
Because Crown Castle is a CLEC entitled to construct its facilities in the ROW, its small-cell and DAS networks are inherently ROW systems. On that basis, Crown Castle examined those alternatives theoretically available to it in the ROW. The analysis below demonstrates why the Project qualifies as the “least intrusive means” of filling the significant gap in service.

**(1) Height and Location of the Project.**

The antenna height and location of the Project were chosen to provide the minimum signal level needed to meet critical coverage and capacity needs in the service area. Despite the technical limitations of a low-profile, small-cell system, Crown Castle seeks to maximize the coverage of each node location, since maximization of the node performance equates to a lower overall number of facilities and a less intrusive system. Accordingly, the Project location was chosen to provide an effective relay of signal from adjacent sites, so that ubiquitous coverage of the minimum signal level is provided throughout the service area with the minimum number of facilities.

The selected location maximizes the RF coverage of the Project and minimizes interference/overlap with the other facilities, resulting in a lower overall number of facilities and a less intrusive system. The ROW is ideal for the Project from an aesthetic standpoint because the ROW is an area already impacted with utilities and similar features typical of developed roadways.

Importantly, the currently proposed location and design were identified after exhausting other possible locations in the relatively small DAS coverage area or “polygon.” (See Exhibit D, Slide 5.) Crown Castle’s RF engineers examined five alternative locations in the immediate Project area, as depicted in Slide 7 of Exhibit D and as excerpted here:



Only the proposed site is adequately buffered from existing residences by expansive ROW landscaped parkways as can be seen below:



The proposed site best utilizes existing foliage and the ROW landscaping, which buffers the Project from surrounding homes. While the Project may be visible at the proposed location, it is far less intrusive than other potential sites that are immediately adjacent to residences. Crown Castle has satisfied its burden of proof under the burden-shifting process established by *T-Mobile U.S.A. Inc. v. City of Anacortes*.

**(2) *Small Cells and DAS as Least Intrusive Means Technology, by Design.***

Even apart from the careful siting of the facilities that are part of a small cells or DAS system, the technological configuration of small cells and DAS nodes is inherently minimally intrusive by design. Small cells and DAS were developed as a smaller-scale solution to the larger macro-site or cell tower. It therefore represents a significant technological advance in the development of reduced-profile wireless transmission devices. The nodes are designed to be smaller scale and lower power to allow them to integrate more easily into their surroundings and thereby render them less aesthetically intrusive. While it is impossible to make the facilities invisible, each facility will be designed to blend with existing features in the road to the extent feasible.

Crown Castle's small cell network qualifies as the "least intrusive means" of filling the identified significant gap for the following reasons, among others:

- (a) Crown Castle small cells utilize the latest in wireless infrastructure technology, incorporating smaller, low-power facilities instead of using larger -- and sometimes more obtrusive -- cell towers;
- (b) Crown Castle small cells utilize the ROW, thereby avoiding intrusions into private property or undeveloped sensitive resource areas;
- (c) Crown Castle small cells allow for collocation by multiple carriers, thereby avoiding proliferation of nodes;
- (d) Crown Castle small cells strike a balance between antenna height and coverage in order to minimize visual impacts;
- (e) Crown Castle small cells carefully are carefully spaced to effectively relay signal with a minimum of facilities; and
- (f) Crown Castle small cells utilize existing vertical elements in the ROW, such as utility poles, or slim-profile new poles, thereby minimizing intrusions into the ROW.

**(3) *The Project Location and Design Qualify as the Least Intrusive Means of Filling the Demonstrated Significant Gap in Coverage.***

The Project utilizes small cell technology, which, as discussed above, was designed to avoid the need for larger profile macro-sites. As for the location, the Project is buffered from residences on all sides by existing foliage and the ROW landscaping. The Staff confirmed that the location was the least intrusive of all the other potentially feasible locations. The facility, as revised, will replace an existing streetlight pole and thereby eliminate the need for a new pole in the ROW. It will be painted to blend into the existing setting.

Moving this site to other locations elsewhere in the small RF objective ring would render the facility more exposed, resulting in greater visual impacts. Crown Castle engaged in an exhaustive investigation of potential locations for the Project. If the City can identify another feasible alternative location that allows Crown Castle to achieve its coverage objective for this Project, it would be happy to investigate that location. Crown Castle submits, however, that it already engaged in that search and that the proposed location is the least intrusive location available.

**4. CONCLUSION.**

For the foregoing reasons, the City Council should grant this Appeal and approve the Project. We look forward to answering your questions on the day of the hearing.

Very truly yours,

Michael W. Shonafelt

MWS

cc: Ara Mihranian, Director, Planning and Zoning Division, City of Rancho Palos Verdes  
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Enclosures  
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