



DEVELOPMENT SERVICES

Authorized Agent for Verizon Wireless

Setting the new standard

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City of Laguna Hills
Application for a Conditional Use Permit
Project Information and Justification

With current efforts underway to establish the required infrastructure for its network in the City of Laguna Hills, Verizon Wireless has retained the services of Core Development Services to facilitate the land use entitlement process. On behalf of Verizon, Core is submitting an application to the City, and requesting approval of a Conditional Use Permit for the construction and operation of an unmanned wireless telecommunications facility, and presents the following project information for your consideration:

Site ID: Luna Bonita – San Onofre/Santiago M19-T3 200 KV Built 1968
Address: Southwest of El Conejo Park
APN: 625-121-16, 625-065-19, 625-071-25, 625-081-02
Zoning: OS-3 (Landscape Corridor District)
Use: SCE Lattice Tower, City of Laguna Hills

Project Representative-Main Point of Contact

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Project Description

Verizon Wireless proposes to construct, operate, and maintain an unmanned wireless telecommunications facility mounted to an existing 136 foot tall SCE Lattice Tower. The proposed wireless facility involves mounting nine (9) panel antennas, six (6) RRU's, and one (1) raycap box on the tower at 66' in height (antenna centerline). One (1) 2' diameter microwave dish will be mounted on the tower at 56' in height (centerline).

Verizon Wireless will also install three (3) equipment cabinets, three (1) GPS antenna, two (2) battery cabinets, one (1) raycap box, one (1) transformer, related utility boxes, and one (1) 55 gallon stand-by generator within a new 22' x 22' x 8'-0" tall CMU wall equipment enclosure. The CMU equipment enclosure will be recessed into the slope and a 5' to 6' tall wrought-iron fence with access gate will be installed on top of the wall for security purposes. New drought-



tolerant landscaping will be planted around the enclosure to screen the facility. Based on the structural and engineering, the antennas have been designed and placed as close to the tower as possible. It is not possible for the antennas to be flush mounted, given the number of sectors and antennas per sector.

Maintenance and Monitoring

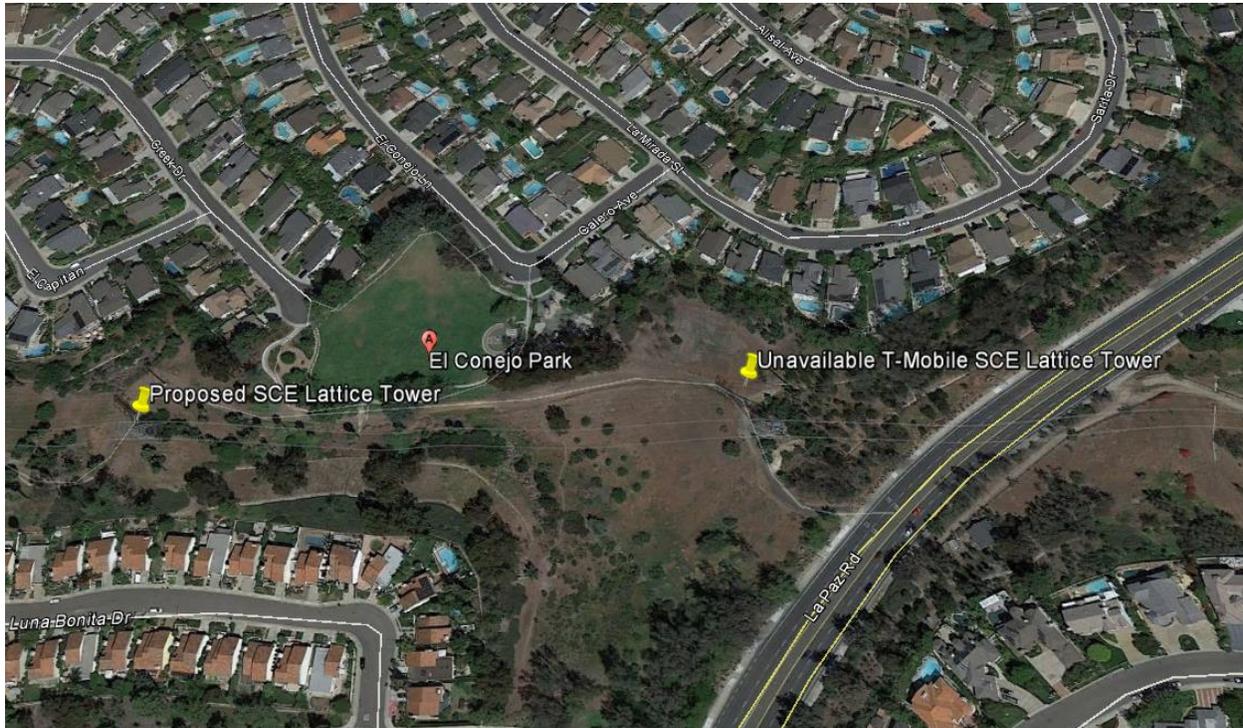
The facility is unmanned and operates 24 hours a day, 7 days a week. Since the facility is unmanned, it will not generate any traffic or impact traffic circulation. The facility is connected to a central network operations center that monitors the facility's status. Routine maintenance occurs once every 4-6 weeks to ensure the equipment is operating within normal specifications. Should an emergency arise maintenance crews are dispatched as necessary to correct the situation. The equipment will not create additional noise as outdoor equipment cabinets are being utilized, rather than an equipment shelter which requires the installation of air conditioning units to cool the cabinets located inside the shelter.

Hazardous Materials

Sealed lead acid batteries are used for stand-by power in the event of a power failure on most Verizon Wireless Facilities. The batteries are often referred to as "gel cell" type batteries. Prior to issuing of Building Permits, Verizon will complete the Hazardous Materials Questionnaire and get the appropriate approvals from County. Additionally, the facility will not create any hazardous materials, waste, odor, light or glare.

Property Characteristics

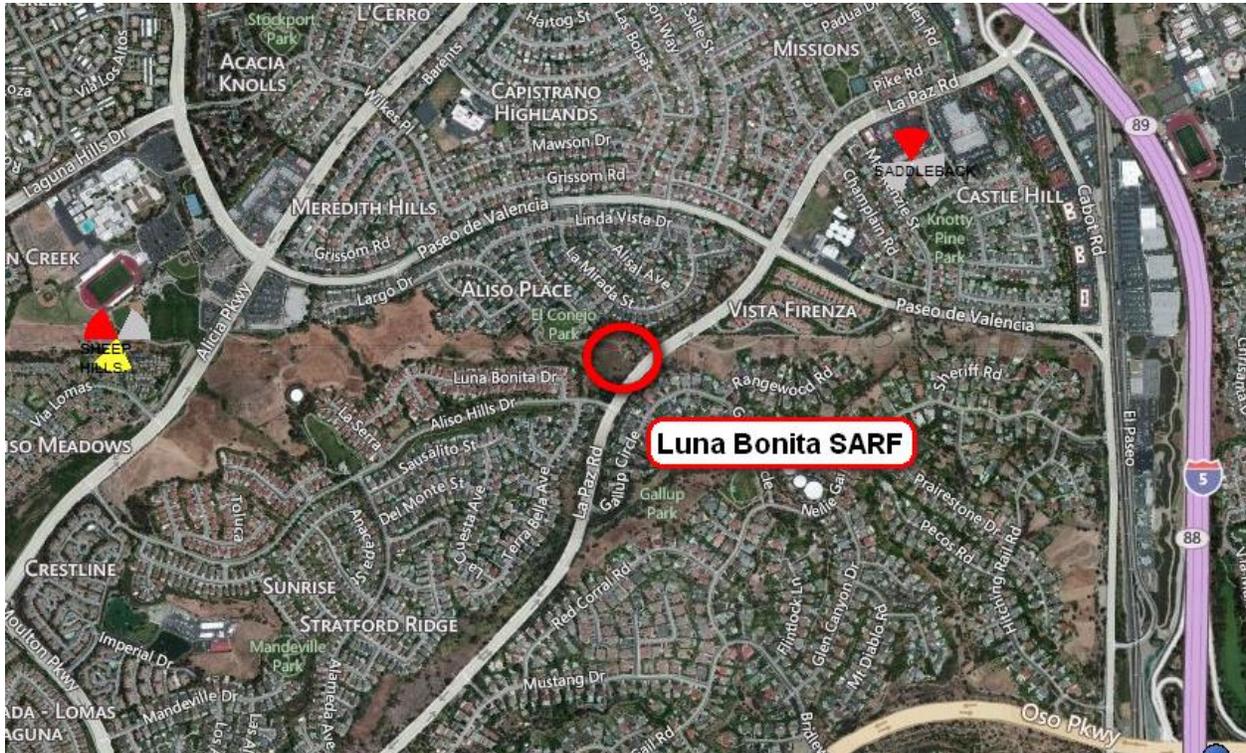
The existing 136' tall SCE Lattice Tower is on top of a hill that is zoned OS-3 (Landscape Corridor District). The site is located southwest of El Conejo Park, which is located at the bottom of the hill. The park is surrounded by residential units to the east, south, and southwest. These properties are located a significant distance from the tower. Additional residential units are located at a higher elevation above the tower itself and are located a significant distance away as well. The adjacent SCE Tower located off of La Paz Road (on the other side of the park) is currently operating a T-Mobile Facility (#25561) and was unavailable for collocation. Since a similar facility is located nearby for the same purpose of providing wireless communications services, the construction and deployment of the proposed wireless facility will be consistent with the character and development of this property.



Project Objective

Wireless carriers deploy new wireless facilities in a specific area to achieve the one of the following:

- Provide signal coverage of sufficient strength to achieve consistent, sustainable, and reliable service to customers at a level sufficient for outdoor, in-vehicle, and in-building penetration with good voice and data quality during high demand periods. (Threshold, -85dBm).
- Provide additional system capacity to ensure there is sufficient signal capacity to offset the contraction of signal experienced when nearby sites become overloaded and more enhanced voice and data services are used (4G and other high speed data services) thereby creating periodic gaps. With heavy use this contraction of signal is intensified due to the unique properties of digital radio transmissions.



In this specific case Verizon’s radio frequency (RF) engineers observed that there is a significant gap in coverage in this area that is densely populated with residential homes. The Luna Bonita Search Area Ring can be shown above. This site will provide improved coverage and capacity improvements to Laguna Hills, specifically nearby residential and an elementary school. The site is a necessity to the general welfare and public safety of the community. At present, Verizon Wireless is experiencing capacity issues as well as poor performance in providing in-building coverage within the residential community surrounding this specific area. The proposed site will provide reliable wireless telecommunications services to Verizon customers throughout the community.

This site will provide improved coverage and capacity to Laguna Hills and off-load the Verizon’s Pipeline, Moulton, and Aliso Viejo sites. VZW RF Engineers have designated this area as a KTA (Known Trouble Area). Radio frequency coverage maps have been provided to illustrate the existing and predicted coverage levels in this community. Existing coverage levels in the vicinity of “Luna Bonita” have Marginal to Poor Signal Levels for In-Vehicle, Pedestrian, and In-Building Levels. The deployment of the proposed site will provide a significant improvement over the existing conditions. The proposed facility will provide an integral link in Verizon’s Wireless’



proposed network and is designed to provide improved coverage and reliable wireless telecommunications services to Verizon customers in this portion of the city.

Siting Analysis

Customer demand drives the need for new cell sites. Data relating to incomplete and dropped calls is gathered, drive-tests are conducted, and scientific modeling using sophisticated software is evaluated. Once the area requiring a new site is identified, a target/search ring on a map is provided to a real estate professional to begin a search for a suitable location.

During an initial reconnaissance, properties considered for the installation of a cell site must be located in the general vicinity of the ring, with an appropriate zoning designation, and appear to have enough space to accommodate an antenna structure and the supporting radio equipment. The size of the space will vary depending on the objective of the site. The owners of each prospective location are notified to assess their interest in partnering with Verizon Wireless.

Four key elements are considered in the selection process:

- **Leasing:** The property must have an owner who is willing to enter into a long-term lease agreement under very specific terms and conditions.
- **Zoning:** It must be suitably zoned in accordance with local land-use codes to allow for a successful permitting process.
- **Construction:** Construction constraints and costs must be reasonable from a business perspective, and it must be feasible for the proposed project to be constructed in accordance with local building code and safety standards.
- **RF:** The property and facility must strategically be located to be able to achieve the RF engineer's objective to close the significant gap with antennas at a height to clear nearby obstructions.

The search area to address the coverage gap described above is predominantly single-family residential with the exception of the subject parcel, El Conejo Park, and the SCE Lattice Tower adjacent to the proposed site off of La Paz Road, which was considered but unavailable for collocation per Phil Hickerson, Sr. SCE Account Manager (email correspondence is provided with application). The Site Selection/ Alternative Site Analysis sections below detail the characteristics of the surrounding land uses, topography of the property, and the reasons why a site is or is not feasible.

SITE SELECTION/ PREFERRED SITES:

The search area ring was created by the radio frequency engineer (RF) for Verizon Wireless site "Luna Bonita" and is centered on a predominantly residential and open space area. It is located



on a hill with residential dwellings located at higher and lower elevations of the proposed wireless facility. While it is ideal for Verizon to locate their facility as far away from residential uses as possible, it is often times a challenge to do so when the intended coverage is for the residential community. In order to be closer to the coverage area, Verizon needs to find a location that is the least obtrusive to the community while still meeting coverage, design and construction objectives.

Generally speaking, the SCE mounted installation is much less intrusive in terms of physical construction and the blending of the antennas with the existing lattice tower is a least visually obtrusive means of installation. The proposal does not introduce new vertical elements into the existing environment as it is mounting directly onto the SCE tower itself. Furthermore, the City has stated preference of utilizing existing tall structures in order to obtain greater heights to meet RF's coverage objective.

ALTERNATIVE SITE ANALYSIS:

Verizon Wireless explores candidates very thoroughly during the site selection process and ranks them or rules them out based on their ability or inability to meet the coverage or capacity needs of the search ring, as well as other factors including construction feasibility, leasing feasibility, zoning feasibility, etc. Therefore, by the time an application is submitted, the best candidate and least obtrusive design would have been selected and proposed. The following is a detailed list of the properties explored for the proposed wireless telecommunications facility:

EL CONEJO PARK - 25601 EL CONEJO LN. LAGUNA HILLS, CA 92653

A monopine design was suggested. The property is zoned OS-1 (Parks) and the code has a height limit of 35'. This site was not selected by RF due to the lower elevation and maximum height limit restrictions. Furthermore, the park is located much closer to residential units and the site access is through a private road.

T-MOBILE LATTICE – LATITUDE: 33.589869°, LONGITUDE: -117.688447° (NO ADDRESS)

Although this tower was identified as an ideal candidate by the RF, SCE has stated that this tower is not available for collocation. There are currently 3 carriers on the tower located at 101 ft. (AT&T); 57 ft. (T-Mobile); and 20 ft. (unknown). Correspondence with a Senior SCE Representative is provided with the application to show this specific tower's unavailability.

Project Benefits:

The proposed project will provide the following community benefits:

- Telephone, data transmission, paging, short message functions, and voicemail services and reliable services for emergency purposes.



- Personal safety and security for community members in an emergency, or when there is an urgent need to reach family members or friends. Safety is the primary reason parents provide their children with cell phones. Currently 25% of preteens, 9 to 12, and 75% of all teens, 13 to 19, have cell phones.
- Enhanced emergency response communications for police, fire, paramedics and other emergency services.
- Enhanced 911 Services (E911)- The FCC mandates that all cell sites have location capability. Effective site geometry within the overall network is needed to achieve accurate location information for mobile users through triangulation with active cell sites (over half of all 911 calls are made using mobile phones).
- Better voice and reception quality.
- Higher security and privacy for telephone users.

Regulating Agencies:

Verizon Wireless is a registered public utility, licensed and regulated by the Public Utilities Commission (CPUC) and the Federal Communications Commission (FCC). As a public utility, Verizon Wireless is licensed by the FCC, is authorized to operate, and must provide wireless communication services throughout the nation.

Verizon Wireless' telecommunications facilities operate at the lowest possible power levels and are well below established standards used by the FCC for safe human exposure to radio frequency electromagnetic fields. These standards have been tested and proven safe by the American National Standards Institute and the Institute of Electrical and Electronics Engineers (IEEE). The proposed communications facility will operate in full compliance with the U.S. standards for radio frequency emissions as published by the American National Standards Institute (ANSI). The ANSI was developed by the committee composed of 125 scientists from universities, non-profit laboratories and Federal Health Laboratories (FDA, NIOSH and EPA). In 1992 the ANSI established, as a public safety standard, a maximum exposure level to radio frequency emissions of 1000 microwatts per centimeter squared (1,000 uW/cm²).

The development of this facility will further enhance Verizon's Southern California wireless network by allowing its customers reliable access to Verizon's nationwide network of services. Similar to the other existing wireless service providers, each Verizon Wireless communications facility, or base station, will consist of transmitting and receiving antennas mounted on a



communication tower or other suitable structure. This specific proposed site will become an integral part of Verizon's City of Laguna Hills wireless network.

Respectfully submitted,

Maree Hoeger
Authorized Agent for Verizon Wireless