Delta Groups Engineering, Inc.

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Verizon Wireless "Jovan" Site
Project Narrative
Application for a Conditional Use Permit- Wireless

Verizon Wireless is a registered public utility licensed and regulated by the Public Utilities Commission (PUC) and the Federal Communications Commission. As a public company, Verizon Wireless receives a license from the FCC to provide Wireless Communication Services throughout the United States. With current efforts underway to establish the required infrastructure for its network in the City of Los Angeles, Verizon Wireless has retained the services of Delta Groups Engineering to facilitate the land use entitlement process. On behalf of Verizon Wireless, Delta Groups is submitting an application to the City of Los Angeles, and requesting approval of a new Wireless Telecommunication Facility request for the construction and operation of an unmanned wireless telecommunications facility. To this end, we present the following project information for your consideration:

Project Information

Verizon Wireless Site Name: Jovan
Address: 18206 Victory Blvd, Tarzana, CA 91335
APN: 2124-018-073 & 2124-018-070
Zoning: Low Residential; R1-1-RIO
Use: Wireless Telecommunication Facility.

Project Description

Verizon Wireless proposes to construct and operate an unmanned wireless facility to be constructed as a stealth wireless facility. New Verizon Wireless (± 303 Sq. Ft) equipment cabinets lease area at grade level and (±114 Sq. Ft.) generator lease area at underground parking garage level. New Verizon Wireless (±56 Sq. Ft), (±56 Sq. Ft), and (±75 Sq. Ft.) antenna lease area on rooftop (±187 Sq. Ft. total on rooftop). (3) Verizon Wireless equipment cabinets. (1) New Verizon Wireless 30kW/120 Gallon (UL 142) AC Diesel Standby Generator. (6) New Verizon Wireless 8'-0" high panel antennas. (3) New Verizon Wireless C-Band antennas. (3) New Verizon Wireless CBRS Antennas. (1) New Verizon Wireless 4'-0" microwave antenna. (12) Verizon Wireless Radios. (3) New Verizon Wireless raycaps. (1) New Verizon Wireless GPS Antenna. (1) New Verizon Wireless ILC cabinet, (1) telco box, and (1) light fixture. (1) New Verizon sub-meter.

Maintenance and Monitoring

The facility is unmanned and will operate 24 hours a day, 7 days a week. Since the facility is unmanned, it will not generate any additional 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 facility will not create any hazardous materials, waste, odor, light, or glare.

Property Characteristics

The subject property is zoned neighborhood residential and is currently developed as a Religious Institution. The equipment and rooftop facility will be screened and enclosed. There are no known scenic aspects of this site and no known adverse soil conditions. There are no known protected species of plants or animals on site.

Project Objective

Wireless carriers deploy new wireless facilities in a specific area to achieve one or both 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.
- 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 the signal is intensified due to the unique properties of digital radio transmissions.

In this specific case, Verizon's radio frequency (RF) engineers observed that the existing/surrounding Verizon sites are becoming overloaded beyond their capacity and determined that an additional facility is needed to relieve network traffic congestion and ensure reliable levels of service along Victory Blvd, nearby parks and schools, and the surrounding community. The existing sites are at or near capacity resulting in weak and unreliable coverage for residents, shoppers, and business owners in this area. The deployment of the proposed site will provide a significant improvement over the existing conditions.

Propagation maps have been provided to illustrate this issue within the network. Propagation maps provide important information regarding the level of the signal and therefore the anticipated coverage provided by a cell site. For a cellular system to work properly, each cell site must provide areas of discrete coverage as well as overlapping coverage with neighboring sites. Coverage exists when there is sufficient radio frequency ("RF") signal strength to provide safe, effective, and reliable levels of coverage in a particular geographic area. As the user travels between the discrete coverage areas of two or more sites, a handoff is triggered within the zone of overlapping coverage. If the handoff is successful, it is transparent to the user and results in seamless coverage. If the handoff is not successful, the call is lost and must be reestablished once the user gets within range of the next site. A gap in coverage, therefore, is when there is either no service within the area at all, or when the existing sites are at or near capacity making the network unable to satisfy the demand for services places on the network by network users.

Without an adequate RF signal, there is no reliability in the ability to make or receive voice calls, and data throughput speed is limited. This is especially significant in that Verizon Wireless, as an FCC licensee, is mandated to provide enhanced 911 services to its users. The strength of RF signal coverage is measured in decibel level and is noted as a dBm level. As the decibel level is degraded (i.e. signal level is weakened), it is reflected in increasingly larger negative numbers. Hence, -75dBM is a stronger signal than -85dBM, which in turn is stronger than -95dBM.

The proposed facility will provide an integral link in Verizon's Wireless' proposed network and is designed to improve the network, by resolving current capacity issues of existing/surrounding facilities. Since the currently deployed facilities are operating beyond their capacity and handling such a high demand for calls, data, etc., LTE speeds are slower than they should be, calls are getting dropped, and other issues affecting the network's performance are also occurring in this section of Los Angeles. The proposed site will provide reliable wireless telecommunications services to Verizon customers throughout the community.

Siting Analysis

The network of Verizon Wireless sites throughout the region is "locationally" dependent, meaning that there is a necessary and logical interrelationship between each site. Eliminating or relocating a single cell site can lead to gaps in the system and prohibit Verizon from providing uninterrupted services to customers in a defined coverage area. Customer demand drives the need for new cell sites. Data relating to incomplete and dropped calls are 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 appears 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, must be feasible for the proposed project to be constructed in accordance with local building codes 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 in coverage with antennas at a height to clear nearby obstructions.

Collocation Information

Verizon Wireless always pursues collocation opportunities as a priority. If any potential existing facilities are identified, Verizon Wireless will contact the existing carrier to pursue collocation opportunities. The proposed Verizon Wireless installation was only considered after an exhaustive attempt to collocate the Wireless Telecommunication Facility.

Project Benefits

The proposed project will provide the following community benefits:

- Telephone, data transmission, paging, short message functions, voicemail services, and reliable services for emergency purposes. According to an article released on May 4, 2017, the CDC National Center for Health Statistics of 2017 United States more than 50% of all households are "wireless only" with no landline telephone service furthering the need for reliable cell service;
- 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;
- 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 California 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.

All of Verizon's sites comply with FCC regulations and requirements in regards to electro-magnetic emissions (EME). According to Section 704 of the 1996 Telecom Act, "No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities based on the environmental effects of radiofrequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions" (Section 704. (a) (II) (iv)).

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 radiofrequency 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 radiofrequency emissions as published by the American National Standards Institute (ANSI).

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 wireless network.

The enclosed application and supporting materials are presented for your consideration. Verizon Wireless requests a favorable determination and approval of this application to construct the proposed facility. Please contact me at (626) 374-8045 or mhasegawa@deltagroups.com for any questions or requests for additional information.

Respectfully submitted,

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