



November 21, 2017

Teresa Zarrin  
City of Sunnyvale Planning Dept.  
456 West Olive Ave.  
Sunnyvale, CA 94088

RE: Verizon Wireless Small Cell "Sunnyvale '016" on an existing Utility Pole near 214 Commercial St

Dear Teresa:

On behalf of Verizon Wireless, this letter provides information and an enhanced description to support the application's request to receive Design Review Approval to install a wireless telecommunications small cell node in the public right-of-way near the referenced location.

The following is a detailed **Project Description** of the facility design, the project's purpose, and justifications to find support of the application.

Project Purpose:

The purpose of this project is to provide improved wireless voice and data coverage to the surrounding area. These wireless services include mobile telephone, wireless broadband, emergency 911, data transfers, electronic mail, Internet, web browsing, wireless applications, wireless mapping, and video streaming. Further radio frequency details are set forth in the attached Radio Frequency Statement, including propagation maps depicting existing and proposed coverage in the vicinity.

Small Cell network consists of a radio access node connected to small telecommunications antenna(s), typically mounted on existing wooden utility poles within the public rights-of-way, to distribute wireless telecommunications signals. Small cells provide telecommunications transmission infrastructure for use by wireless services providers.

Our proposal application will greatly benefit the area by improving wireless telecommunications service as further detailed below.

Location:

Verizon Wireless is proposing to install a small cell network in Sunnyvale on a Commercial Street Utility Pole. A small cell network is a set of radio access nodes that deliver wireless signals throughout a given area. Small antennas and remote radio units are located at each node site, and the nodes are linked by fiber optic cable to a central equipment hub. The proposed small cell network consists of several nodes spaced evenly about the service area described above.

All the proposed nodes would be located on existing wooden utility poles in City of Sunnyvale. Verizon Wireless is the applicant and owner of the proposed small cell network and has rights, as CPUC member, to locate on existing utility poles.

The proposed location for this site currently consists of an approximately 47-foot-tall wooden utility pole located in the public right-of-way in front of the property near 1102 Vasquez Ave in Sunnyvale. Verizon would be adding equipment on the pole and on the ground near the pole's base.

Scope of Work:

- Install (1) canister antenna on a new replacement utility pole
- Install (1) new power cabinet On (N) Replacement pole
- Install (3) new RRU-units On (N) Replacement pole
- Install (2) new utility disconnect switches on new Utility Pole
- Install (1) electrical meter on new power cabinet
- Install appropriate signage, ground rods, and buss bar
- Install (3) new conduits for power, telco, and coax
- Install (1) handhole at ground level

#### Antenna:

The antennas are cylindrical in shape and of the canister type, measuring 48 inches high and 14.6 inches in diameter. The antenna would be situated on top of the new pole, extending the overall structure height to 54.10 feet. The antennas would be painted dark brown to match the pole. The drawings and photographic simulations included with this application depict the design and its appearance on the pole.

#### Radio Units:

The radio units will be situated on the new ground-level power cabinet. The radio units are approximately 16.5 inches tall, 13.5 inches wide, and 6.3 inches deep and 27.2 inches tall, 12.1 inches wide and 7.0 inches deep. These units serve to run the equipment that interfaces with the Verizon Wireless communications network.

#### Ground Cabinet:

This project includes the installation of a ground-mounted cabinet that measures 54.1 inches high, 72 inches wide, and 24.9 inches deep and will be placed on a new concrete foundation. These dimensions include the radio units, which will be installed within the power cabinet. The cabinet supplies emergency backup power in the event of a power outage, allowing the facility to provide service during the event.

The design of the site is based on our experience with how best to integrate a wireless facility into the community. Current technology and demand from subscribers determines the size of our designs. We have worked with jurisdictions to develop the best design to meet our clients' needs as well as the needs of the communities.

#### Justification:

As the community's demands for data area are increasing exponentially, we are required to go more closely into the areas where people use their phones, such as neighborhoods, urban areas, and commercial complexes. Centrally located sites provide the best capacity for the most people in a given community. Alternate candidates were assessed to find the best possible option that met the coverage objective and aesthetics. See Alternative Siting Analysis for these alternate considerations. In turn, Verizon Wireless will be siting additional facilities because it is determined, based on demand, usage, and service reports, that there is a need for increased capacity to meet the growing demand.

This site will increase the bandwidth needed to access data-rich applications like video and internet streaming, uploading and downloading photos and video, applications in the area to serve existing customers, and future wireless needs. Please note that as a part of the application, Verizon Wireless has provided Coverage Maps to support this need even though California Public Utilities Code section 7901 grants wireless providers the right to place wireless facilities along public rights-of-way without a lease or license.

Site Selection:

We evaluated many sites before choosing this one. This site was carefully selected based on this network's maturity, unique coverage, and capacity needs. Verizon's placement of cellular facilities also depends on often limited availability of property where the facilities can be built and operated. Moving the site even a few hundred feet could affect coverage, creating the need for one or more additional sites. An alternative Site Analysis was included in the application to show the alternatives considered and to help demonstrate support for the selected proposed node location.

Construction:

Once all required permits are received, the licensed General Contractor will pick up the permit(s) and ensure that the City's Municipal Code requirements for construction in the Public Right of Way are met. Construction will take about a week with minimal disruption to the area.

Maintenance and Monitoring:

After the site construction is complete and the installation is operational, the installation will be an unmanned facility that requires occasional maintenance, about once a month or less, unless the equipment needs repair. All repair and installation work will comply with Department of Public Works City Requirements for conducting work in the public right of way. Also, all non-emergency work may be done during non-peak traffic hours to alleviate traffic congestion.

Safety Standards:

Please note that the Federal Communications Commission (FCC) sets safety guidelines for wireless facilities and due to the small size of this type of installation and it being low wattage, the emissions from small cells are a small fraction of FCC permitted levels in any publicly-accessible area. See FCC website for additional information at: <http://www.fcc.gov/oet/rfsafety/rf-faqs.html>. Included with our submittal is documentation from a 3<sup>rd</sup> party engineer stating how the proposed facility will comply with the FCC safety standards.

In conclusion, based on review of the above information and supporting documents included with our application, it is our hope we have provided substantial information to respectfully request Sunnyvale Planning support of the Project thereby recommend application approval. Sunnyvale Planning approval will enhance Verizon Wireless service in the area that will better serve Sunnyvale residences, visitors, and the emergency service providers who rely on the Verizon Wireless network.

If you have questions please feel free to contact me at 415-806-2323 or [Christy@TheCBRGroup.com](mailto:Christy@TheCBRGroup.com).

Sincerely,  
The CBR Group, Inc.

Christy Beltran Roberts  
(Authorized Agent for Verizon Wireless)