

SUNNYVALE DEPARTMENT OF PUBLIC SAFETY



June 23, 2015

Community Development Department
Planning Division
City of Sunnyvale
456 W. Olive Ave.
Sunnyvale, CA 94086

Re: Proposed Monopole at Sunnyvale Fire Station #5

To Whom It May Concern:

The Department of Public Safety (DPS) on behalf of the City of Sunnyvale is requesting approval of the installation of a communications monopole at the new fire station 5 location at 1210 Bordeaux Drive. This monopole is primarily being constructed to service the Silicon Valley Regional Communications System (SVRCS) which will provide radio communications for the emergency responders of the combined Santa Clara County public safety organizations. The height of the monopole is being requested as one-hundred and sixty feet above the ground to afford optimal coverage necessary. This desired height requirement was necessitated by the increased commercial building heights and density in the area. The ability to broadcast the needed radio signal requires line of sight communications with other locations within the city and county.

The mounting of radio infrastructure to a roof of a city owned facility will not meet the radio system height requirements necessary to generate the coverage specifications of a public safety grade radio system. The ability for the city to own and operate the infrastructure allows flexibility in future leasing options to secure revenue or recovery of construction costs. Utilizing an existing structure not owned by the city requires the incorporation of a lease and expense to the city. This is not feasible for the long-term requirement of communications for public safety or the city. The city owning the infrastructure also offers flexibility and opportunity to use less-expensive alternatives for communications between city facilities such as the community center, water pollution control plant, corporation yard and public safety headquarters.

The services that will be provided on the tower include the SVRCS public safety radio system that incorporates public works, the water pollution control plant and other disaster services workers designated to use the system. The city will have the opportunity to use microwave communications technology to increase capabilities among

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city owned facilities. In 2012, the President signed into law a program called First Responder Network Authority (FirstNet) <http://www.firstnet.gov/>. FirstNet is designed to provide dedicated broadband service to public safety and first responder personnel. One of the key components will be the ability to locate infrastructure sites that meet the public safety grade requirements. This monopoly is being constructed to anticipate that need.

The construction of the SVRCS is consistent with the Sunnyvale General Plan by providing the most redundant, robust and effective radio systems available in the modern age. The ability to maintain communications and provide services will be greatly enhanced both internally for the City of Sunnyvale as well as our regional partners in the response to major events. This monopoly serves not only public safety but also many other disaster service workers throughout the city and county. This includes public works departments, valley transit authority and other essential services that will be necessary during a major event. Several components of the existing plan address this need as detailed below.

- Policy SN-2.2 Provide for the emergency management of the city in order to respond effectively and assure life and property safety in the event of a disaster.
- Policy SN-2.5 Provide emergency radio or other communications devices for coordination of emergency response and the capability to communicate with outside agencies and community members.
- Policy SN-2.7 Provide for the continuation of city government and services following a major disaster as quickly as feasible.

The installation of the monopoly and radio infrastructure also is in accordance with Council Long Term Advocacy Positions for Public Safety

4.3 Support Services

(1) Continue to support interoperability initiatives as they relate to public and private industry. Interoperability is the ability of diverse agencies (police, fire, EMS, and COUNCIL POLICY MANUAL 4.0 – Page 2 local government) to communicate directly with each other by using radio and data. [DPS Staff 2007, 2009 DPS staff modification] (Moved to Long Term Council Policy, RTC 12-09, February 7, 2012) Lead Dept. DPS

(2) Support efforts to ensure protection of sufficient radio spectrum to meet public safety's current and future needs. Public safety needs should have priority over private or for-profit communication systems and provide adequate funding as necessary. Also protect the current amateur radio bandwidth to ensure amateur radio support during emergencies. [1998 NLC Resolution, 2009 DPS staff modification] (Moved to Long Term Council Policy, RTC 12-09, February 7, 2012) Lead Dept. DPS

There is no public health concern related to the monopoly or the future radio equipment as they will all meet the public safety standards set by the FCC. The future radio equipment will be co-located with city personnel working at the new fire station 24 hours per day. The precautions for this equipment meet all best practices in the industry for safety of the public.

Due to the increasing height and density of the commercial structures on the north side of Sunnyvale there are considerable coverage related issues that currently exist. Those include but are not limited to coverage issues within the water pollution control plant as

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well as with in-building penetration capabilities. The currently installed radio infrastructure is geographically too distant to provide effective coverage. This monopole will decrease those issues and improve the operational capabilities of all regional partners that include the DPS, Sunnyvale Public Works and the Environmental Services Division who are currently operating on the system.

Due to the needed height for the public safety system there is available space in the lower portions of the monopole. This will allow for vendor lease options to generate on-going revenue based upon the market rates. This cost recovery will offset the initial expenditure of the monopole costs in approximately 7-9 years based upon rough estimates. Co-location will be contingent upon no impact to the City of Sunnyvale or public safety coverage needs.

The requested height is required to meet the needs of the SVRCS and the line of sight requirements. The locations of the equipment will be evaluated on a case by case basis with the knowledge with the visual impact as a factor for consideration. All equipment will be evaluated for it to be placed at the most optimal and lowest levels available.

The new public safety training facility where the monopole is being located is considered a secure facility with all necessary precautions accounted for the protection of the monopole. This co-location reduces the need for enhanced security measures that may not exist at other locations if the monopole was not placed on properly located city owned property. Additionally on-site emergency generator services provide power to continue radio coverage in the event of a power outage.

This monopole provides the coverage for a guaranteed level of service from the SVRCS to support the critical public safety needs in Santa Clara County. These coverage levels provide the most effective and efficient means for the public safety agencies to respond to, mitigate, and recover from emergency events.

The design was structured to be the least impactful design but maintained to meet the needs of a public safety grade radio system, the SVRCS and future growth previously mentioned. The monopole design is far less intrusive than a quad legged design or other alternatives. As previously mentioned the height is required based upon the structural increases on the north side of Sunnyvale and its continuing growth.

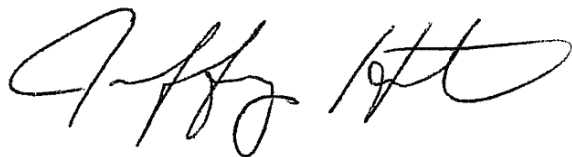
This project has been referred to the FAA and Santa Clara County Airport Land Use Commission for review of the height. The proposed height may potentially exceed the maximum allowable by ten feet but an exemption is being requested. In the event that it is not approved, the monopole height may need to be lowered and once construction of several in-progress structures is completed then an analysis will need to be conducted as to the radio coverage needs of that area. The coverage guarantee for SVRCS will no longer be valid and potentially an additional site would need to be considered.

Once the monopole construction is approved and completed the SVRCS vendor, Motorola, will conduct all the necessary radio frequency studies to avoid interference. Due to the public safety nature of the system this is a contract requirement that the SVRCS had imposed in 2012 when the project began. SVRCS assumes all responsibility of the costs

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for installation of the radio equipment once the city owned monopole is completed. The project is required to meet all federal regulations in regards to radio interference.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Jeffrey Hunter', followed by a large, stylized flourish.

Jeffrey Hunter, Captain
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