



REPORT TO PLANNING COMMISSION

Hearing Date: August 23, 2010
File Number: 2010-7108

SUBJECT: **Verizon Wireless (Pacific Gas and Electric Co.):**
Application for a project located at **757 Lois Avenue** in an R-0 (Low Density Residential) Zoning District (APN: 198-25-010).

Motion **2010-7108:** Use Permit to allow colocation of a fourth wireless telecommunications carrier to add nine antennas on an existing lattice tower and associated ground equipment, including an emergency back-up generator.

REPORT IN BRIEF:

Existing Site Conditions Pacific Gas and Electric Co. (PG&E) right-of-way with high-tension power lines

Surrounding Land Uses

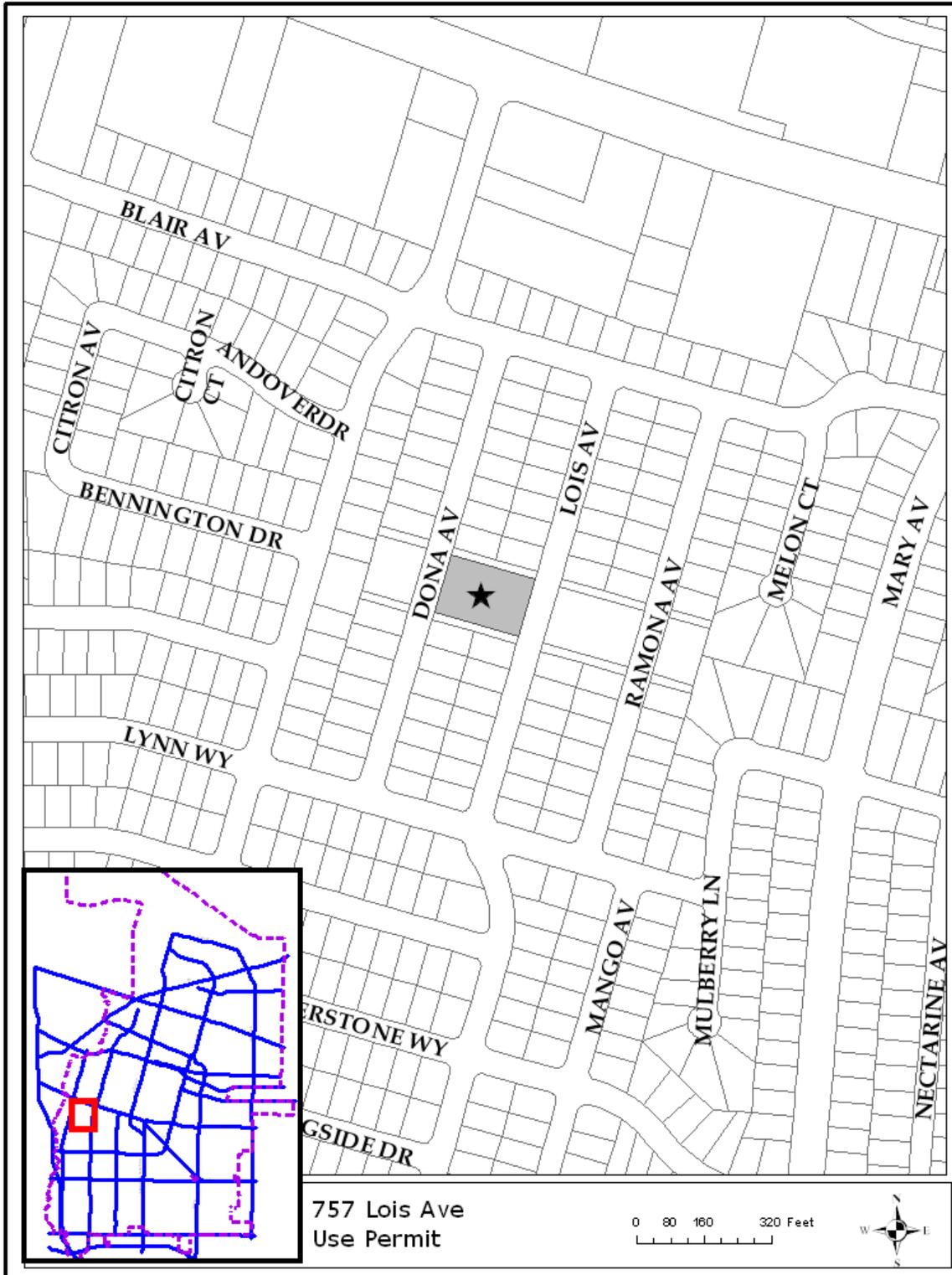
- North Single-family homes
- South Single-family homes
- East PG&E right-of-way & Single-family homes
- West PG&E right-of-way & Single-family homes

Issues Aesthetics and noise impacts

Environmental Status A Negative Declaration has been prepared in compliance with California Environmental Quality Act provisions and City Guidelines.

Staff Recommendation Approve with conditions

VICINITY MAP



PROJECT DATA TABLE

| | EXISTING | PROPOSED | REQUIRED/ PERMITTED |
|--|-------------------------|-----------------|--------------------------------|
| General Plan | Residential Low Density | Same | Residential Low Density |
| Zoning District | R-0 | Same | R-0 |
| Lot Size (s.f.) | 29,400 | Same | 6,000 min. |
| Height of Subject Tower (ft.) | 106' | Same | N/A |
| Setbacks to Equipment Enclosure | | | |
| Front (Lois) | N/A | 110'-8" | N/A |
| Left Side | N/A | 113' | N/A |
| Right Side | N/A | 51' | N/A |
| Rear (Dona) | N/A | 70'-4" | N/A |

★ Starred items indicate deviations from Sunnyvale Municipal Code requirements.

BACKGROUND:

The proposed project is to allow colocation of a fourth wireless telecommunications carrier on an existing site developed with two PG&E towers. The proposed installation will occur on the northerly tower.

Previous Actions on the Site

The site is currently developed with two PG&E towers. The northerly tower (right side facing Lois Avenue) currently contains T-Mobile equipment, while the southerly tower (left side facing Lois Avenue) contains Metro PCS and Clearwire equipment. The following table summarizes previous planning applications related to the subject site for both existing lattice towers.

| File Number | Brief Description | Hearing/ Decision | Date |
|--------------------|---|--|-------------|
| 2009-0522 | UP to allow three antennas and three microwave dishes and ground equipment. Variance to extend height of tower by 6 feet (Clearwire). | Planning Commission/ Approved UP, denied VAR | 12/14/2009 |
| 2007-1242 | MPP to allow six panel antennas and ground equipment (T-Mobile). | Staff/Approved | 12/20/2007 |
| 2004-0260 | MPP to allow three panel antennas and ground equipment (Metro PCS). | Staff/Approved | 5/05/20004 |

DISCUSSION:

Requested Permit(s)

The applicant is requesting approval of a Use Permit to add nine panel antennas on the northerly tower (right side facing Lois Avenue) with associated ground equipment. Approval of the project would result in a total of four wireless telecommunication carriers on this site.

- **Use Permit**

According to Sunnyvale Municipal Code (SMC) Section 19.54.080, telecommunications projects in residential zoning districts involving three or more carriers on a site require a Use Permit. Planning Commission review is required for adoption of the Negative Declaration.

ANALYSIS:

Development Standards

The proposed project complies with the applicable Development Standards as set forth in SMC Section 19.54. The following items have been identified as items for clarification by the Planning Commission:

- **Site Layout**

The proposed project is to add nine panel antennas on the existing PG&E tower, located beneath T-Mobile's existing antennas. The antennas will be arranged in two arrays, with six antennas placed at a height of 50 feet and three antennas at a height of 45 feet. Each antenna is approximately 4-foot tall and 1-foot wide.

A new 464-square foot masonry enclosure will be built behind the subject tower (facing Dona Avenue) and will fully screen associated ground equipment at a height of 10 feet. Ground equipment will consist of seven equipment cabinets, one GPS (Global Positioning System) antenna, and one emergency back up generator. Coaxial cables running from the ground enclosure to the tower will be placed underground (see Condition of Approval #12 in Attachment B).

The purpose of the generator is to provide power to the antennas in the event of a power loss lasting more than four hours. In addition to its operation during power outages, the proposed generator will be tested once a week for a period of approximately 20 minutes, on a weekday during daytime hours (see Condition of Approval #20 in Attachment B). The proposed generator will be a 30-kilowatt SD030 John Deere generator with the capacity for 110 gallons of diesel fuel.

- **Noise**

The closest residential property line from the new enclosure will be approximately 51 feet away along the north property line. Noise from the

generator will be limited to events of power outage and weekly testing. The applicant has worked with a noise consultant on the design of the masonry enclosure to ensure compliance with Sunnyvale noise standards. Per the noise consultant's letter dated April 27, 2010 (Attachment I) the inner surface of the wall should also be covered with acoustically absorptive panels to get the full barrier effect out of the enclosure (see Condition of Approval #13 in Attachment B). As a standard condition, the applicant will be required to provide noise studies to demonstrate compliance with noise regulations after the facility and generator is in place at or near full capacity (see Condition of Approval #17 in Attachment B). If noise measurements are not in compliance, further modifications will be required to the enclosure.

- **Air Quality/Public Safety**

Staff consulted with the Sunnyvale Hazardous Materials Coordinator who stated no concerns with this type of generator proposed. Based on the generator specifications the Hazardous Materials Coordinator stated that the voltage and amount of diesel stored are site are considered to be low hazard. As conditioned, the applicant is required to obtain a permit through the Sunnyvale Department of Public Safety for the generator (see Condition of Approval #15 in Attachment B).

- **Parking/Circulation**

No additional parking is required for the proposed use.

- **Landscaping and Tree Preservation**

Existing landscaping consisting of trees and shrubs provide partial screening for the equipment enclosure along Lois and Donna Avenues. No changes are proposed to the existing landscaping.

Radio Frequency Emissions

The applicant has submitted a radio frequency exposure study conducted by Hammett & Edison, Inc, dated February 25, 2010, indicating compliance with Federal Communications Commission (FCC) standards for individual and cumulative impacts (Attachment G).

Design Requirements

The project is subject to the wireless telecommunications design requirements contained in SMC Chapter 19.54. The following key policies apply:

- 19.54.40 (b) - All facilities shall be designed to minimize the visual impact to the greatest extent feasible, considering technological requirements, by means of placement, screening, and camouflage, to be compatible with existing architectural elements and building materials, and other site characteristics. The applicant shall use the smallest and least visible antennas possible to accomplish the owner/operator's coverage objectives.

- 19.54.40 (c) - SMC 19.54.040 - Colors and materials for facilities shall be chosen to minimize visibility. Facilities shall be painted or textured using colors to match or blend with the primary background
- 19.54.40 (j) – All monopoles and lattice towers shall be designed to be the minimum functional height and width required to support the proposed antenna installation.
- 19.54.40 (l) - In order of preference, ancillary support equipment for facilities shall be located either within a building, in a rear yard or on a screened roofs top area. Support equipment pads, cabinets, shelters and buildings require architectural, landscape, color, or other camouflage treatment for minimal visual impact.

The proposed antennas will be visible from both street frontages and within the surrounding neighborhood. However, the proposed antennas will be placed as close to the tower as possible and the addition of the antennas will not visually disruptive to the site or neighborhood.

All new ground equipment will be fully screened by the new masonry enclosure. The enclosure will be partially screened by existing enclosures and mature landscaping along the Lois Avenue street frontage. The enclosure is more visible along Dona Avenue. However, the masonry enclosure has been designed to be the least functional height required to meet noise standards and is set back more than 70 feet from the property line along Dona Avenue. Therefore, staff finds the visual impacts of the additional carrier on this site to be minimal.

Environmental Review

A Negative Declaration has been prepared in compliance with the California Environmental Quality Act provisions and City Guidelines. An initial study has determined that the proposed project would not create any significant environmental impacts (Attachment C).

The key issues addressed in the Initial Study include noise and air quality impacts as a result on the installation of the emergency back-up generator. As discussed above, the proposed equipment enclosure has been designed to meet Sunnyvale noise regulations. Based on the low kilowatt level, a permit is not required by the Bay Area Air Quality Management District (BAAQMD). However, compliance letters were provided from the U.S. Environmental Protection Agency and California Air Resources Board demonstrating that the proposed generator meets Federal and State standards for particulate matter emissions (Attachment H).

FISCAL IMPACT

No fiscal impacts other than normal fees and taxes are expected.

PUBLIC CONTACT

A neighborhood outreach meeting was held on June 3, 2010 to review the project with neighbors within 300 feet. Two residents were in attendance, who expressed concerns regarding maintenance issues at this site.

Planning staff consulted with the Department of Public Safety’s Neighborhood Preservation Division (NP) with the maintenance concerns. Since 2007, two cases were filed through NP, regarding overgrown vegetation and graffiti on a ground enclosure. These cases took approximately one month to close, as there was confusion about whose responsibility it is to maintain the site between PG&E and the carrier.

Although it is the property owner’s legal responsibility to maintain the site, the owner may require maintenance by the lessee through their private lease agreement (Attachment B, #21). Staff recommends that information for a local contact person be provided to the City for maintenance issues, just as it is required by the code for emergency contact. The applicant must notify the City of any changes to the contact information within 30 days of any changes (Attachment B, #20).

| Notice of Negative Declaration and Public Hearing | Staff Report | Agenda |
|---|--|--|
| <ul style="list-style-type: none"> • Published in the <i>Sun</i> newspaper • Posted on the site • 115 notices mailed to the property owners and residents within 300 ft. of the project site | <ul style="list-style-type: none"> • Posted on the City of Sunnyvale's Website • Provided at the Reference Section of the City of Sunnyvale's Public Library | <ul style="list-style-type: none"> • Posted on the City's official notice bulletin board • City of Sunnyvale's Website |

CONCLUSION

Findings and General Plan Goals: Staff was able to make the required Findings based on the justifications for the Use Permit. Recommended Findings and General Plan Goals are located in Attachment A.

Conditions of Approval: Recommended Conditions of Approval are located in Attachment B.

ALTERNATIVES

1. Adopt the Negative Declaration and approve the Use Permit with attached conditions.

2. Adopt the Negative Declaration and approve the Use Permit with modified conditions.
3. Adopt the Negative Declaration and deny the Use Permit.
4. Do not adopt the Negative Declaration and direct staff as to where additional environmental analysis is required.

RECOMMENDATION

Alternative 1.

Prepared by:

Noren Caliva
Project Planner

Reviewed by:

Steve Lynch
Senior Planner

Attachments:

- A. Recommended Findings
- B. Recommended Conditions of Approval
- C. Negative Declaration
- D. Site and Architectural Plans
- E. Photosimulations
- F. Letter from the Applicant and Project Justifications
- G. Radio Frequency Exposure Study
- H. U.S. EPA and CARB Compliance Letters
- I. Noise Study
- J. Wireless Providers' Propagation Maps

RECOMMENDED FINDINGS

Use Permit

Goals and Policies that relate to this project are:

Telecommunications Policy Goal B: *Promote universal access to telecommunications services for all Sunnyvale citizens.*

Land Use and Transportation Element Action Statement N1.1 – *Limit the intrusion of incompatible uses and inappropriate development into city neighborhoods.*

Land Use and Transportation Element Policy N1.3 – *Support a full spectrum of conveniently located commercial public and quasi-public uses that add to the positive image of the city.*

1. The proposed use attains the objectives and purposes of the General Plan of the City of Sunnyvale.

The proposed project will increase telecommunications coverage, while meeting federal emissions requirements for human exposure. In addition, the project would utilize an existing tower and would eliminate the need to build a new telecommunications facility elsewhere in the City. *[Finding met.]*

2. The proposed use ensures that the general appearance of proposed structures, or the uses to be made of the property to which the application refers, will not impair either the orderly development of, or the existing uses being made of, adjacent properties.

Although the added equipment will be visible from the street frontage, the visual impact of placing the equipment below the existing antennas would be minimal. All new ground equipment will be fully screened within a new masonry enclosure, which has also been designed to reduce noise impacts from the new emergency generator. In addition, the generator complies with Federal and State standards for particulate matter *[Finding met.]*

ATTACHMENT B

RECOMMENDED CONDITIONS OF APPROVAL AND STANDARD DEVELOPMENT REQUIREMENTS AUGUST 23, 2010

Planning Application **2010-7108 757 Lois Ave.**
Verizon Wireless

Use Permit to allow collocation of a fourth wireless telecommunications carrier to add nine antennas on an existing lattice tower and associated ground equipment, including an emergency back-up generator.

The following Conditions of Approval [COA] and Standard Development Requirements [SDR] apply to the project referenced above. The COAs are specific conditions applicable to the proposed project. The SDRs are items which are codified or adopted by resolution and have been included for ease of reference, they may not be appealed or changed. The COAs and SDRs are grouped under specific headings that relate to the timing of required compliance. Additional language within a condition may further define the timing of required compliance. Applicable mitigation measures are noted with "Mitigation Measure" and placed in the applicable phase of the project.

In addition to complying with all applicable City, County, State and Federal Statutes, Codes, Ordinances, Resolutions and Regulations, Permittee expressly accepts and agrees to comply with the following Conditions of Approval and Standard Development Requirements of this Permit:

| |
|--|
| THE FOLLOWING GENERAL CONDITIONS SHALL APPLY TO THE APPROVED PROJECT. |
|--|

1. CONFORMANCE WITH APPROVED PLANNING APPLICATION – All building permit drawings and subsequent construction and operation shall substantially conform with the approved planning application, including: drawings/plans, materials samples, building colors, and other items submitted as part of the approved application. Any proposed amendments to the approved plans or Conditions of Approval are subject to review and approval by the City. The Director of Community Development shall determine whether revisions are considered major or minor. Minor changes are subject to review and approval by the Director of Community Development. Major changes are subject to review at a public hearing. [COA] [PLANNING]
2. COMPLY WITH APPLICABLE REGULATIONS - The facility must comply with any and all applicable regulations and standards promulgated or imposed by any state or federal agency, including but not limited to the Federal Communications Commission and Federal Aviation Agency.[SDR] [PLANNING]
3. PERMIT EXPIRATION (Ordinance 2895-09): The Use Permit shall be valid for three (3) years from the date of approval by the final review authority (as

-
- adopted by City Council on April 21, 2009, RTC 09-094). Extensions of time may be considered, for a maximum of two one year extensions, if applied for and approved prior to the expiration of the permit approval. If the approval is not exercised within this time frame, the permit is null and void. [SDR] (PLANNING)
4. TESTING WITHIN 15 DAYS - The applicant shall test any wireless telecommunications site installed in the City of Sunnyvale within 15 days of operating the tower. The test shall confirm that any Emergency 911 wireless call made through the wireless telecommunications site shall provide Enhanced 911 capability (including phase 2 information when available from the caller's device) and direct the call to the City of Sunnyvale Department of Public Safety dispatcher, ensuring phase 2 information is transferred. If the call is to be directed elsewhere pursuant to State and Federal law the applicant shall ensure that the Enhanced 911 information transfers to that dispatch center. This capability shall be routinely tested to ensure compliance as long as the approved wireless telecommunications site is in service. [SDR] [PLANNING]
 5. HOLD HARMLESS - The wireless telecommunication facility provider shall defend, indemnify, and hold harmless the city or any of its boards, commissions, agents, officers, and employees from any claim, action or proceeding against the city, its boards, commission, agents, officers, or employees to attack, set aside, void, or annul, the approval of the project when such claim or action is brought within the time period provided for in applicable state and/or local statutes. The city shall promptly notify the provider(s) of any such claim, action or proceeding. The city shall have the option of coordinating in the defense. Nothing contained in this stipulation shall prohibit the city from participating in a defense of any claim, action, or proceeding if the city bears its own attorney's fees and costs, and the city defends the action in good faith. [SDR] [PLANNING]
 6. LIABILITY - Facility lessors shall be strictly liable for any and all sudden and accidental pollution and gradual pollution resulting from their use within the city. This liability shall include cleanup, intentional injury or damage to persons or property. Additionally, lessors shall be responsible for any sanctions, fines, or other monetary costs imposed as a result of the release of pollutants from their operations. Pollutants include any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals, and waste. Waste includes materials to be recycled, reconditioned or reclaimed. [SDR] [PLANNING]
 7. NO THREAT TO PUBLIC HEALTH - The facility shall not be sited or operated in such a manner that is poses, either by itself or in combination with other such facilities, a potential threat to public health. To that end, the subject facility and the combination of on-site facilities shall not produce at any time power densities in any inhabited area that exceed the FCC's Maximum Permissible Exposure (MPE) limits for electric and magnetic field strength and power density for transmitters or any more restrictive standard subsequently adopted or promulgated by the federal government. [SDR] [PLANNING]

THE FOLLOWING CONDITIONS SHALL BE ADDRESSED ON THE CONSTRUCTION PLANS SUBMITTED FOR ANY DEMOLITION PERMIT, BUILDING PERMIT, GRADING PERMIT, AND/OR ENCROACHMENT PERMIT AND SHALL BE MET PRIOR TO THE ISSUANCE OF SAID PERMIT(S).

8. CONDITIONS OF APPROVAL – Final plans shall include all Conditions of Approval included as part of the approved application starting on sheet 2 of the plans. [COA] [PLANNING]
9. RESPONSE TO CONDITIONS OF APPROVAL – A written response indicating how each condition has or will be addressed shall accompany the building permit set of plans. [COA] [PLANNING]
10. NOTICE OF PROJECT RESTRICTIONS – A Notice of Project Restrictions shall be filed in the official records of the County of Santa Clara and provide proof of such recordation to the City prior to issuance of any City permit, allowed use of the property, or Final Map, as applicable. The Notice of Project Restrictions shall prepared by the Planning Division and shall include a description of the subject property, the Planning Application number, attached conditions of approval and any accompanying subdivision or parcel map, including book and page and recorded document number, if any, and be signed and notarized by each property owner of record.

For purposes of determining the record owner of the property, the applicant shall provide the City with evidence in the form of a report from a title insurance company indicating that the record owner(s) are the person(s) who have signed the Notice of Project Restrictions. [COA] [PLANNING]

11. BLUEPRINT FOR A CLEAN BAY – The building permit plans shall include a “Blueprint for a Clean Bay” on one full sized sheet of the plans. [SDR] [PLANNING]
12. COAXIAL CABLE DESIGN – The coaxial cables running from the ground enclosure to the tower shall be placed underground.
13. WALL DESIGN – Wall design details shall include the following: 1.) The inner surface of the wall should also be covered with acoustically absorptive panels as prescribed in the noise study prepared by Charles M. Salter Associates dated April 27, 2010 and 2.) Wall material shall be made of split-face masonry.
14. TREES – No trees are approved for removal as part of this permit.
15. DEPARTMENT OF PUBLIC SAFETY – Obtain necessary permits through the Department of Public Safety.

THE FOLLOWING CONDITIONS SHALL BE ADDRESSED ON THE CONSTRUCTION PLANS AND/OR SHALL BE MET PRIOR TO RELEASE OF UTILITIES OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

16. RF EMISSIONS STUDIES - The applicant shall submit to the Director of Community Development Radio Frequency Emissions at least two reports of field measurements showing: 1.) The ambient level of RF emissions before construction of the facility and 2.) The actual level of emissions after the facility is in place and operating at or near full capacity. [COA] [PLANING]
17. NOISE STUDIES - The applicant shall submit to the Director of Community Development Noise Analysis at least three reports of field measurements showing: 1.) The noise measurement before construction of the facility, 2.) The actual noise measurement after the facility is in place and operating at or near full capacity, and 3.) The actual noise measurement after the generator is installed and operating at or near full capacity. [COA] [PLANING]

THE FOLLOWING CONDITIONS SHALL BE COMPLIED WITH AT ALL TIMES THAT THE USE PERMITTED BY THIS PLANNING APPLICATION OCCUPIES THE PREMISES.

18. CERTIFICATION - Before January 31 of each even numbered year following the issuance of any authorizing establishment of a wireless telecommunication facility, an authorized representative for each wireless carrier providing service in the City of Sunnyvale shall provide written certification to the City executed under penalty of perjury that (i) each facility is being operated in accordance with the approved local and federal permits and includes test results that confirm the facility meets city noise requirements and federal RF emissions standards; (ii) each facility complies with the then-current general and design standards and is in compliance with the approved plans; (iii) whether the facility is currently being used by the owner or operator; and (iv) the basic contact and site information supplied by the owner or operator is current. [SDR] [PLANNING]
19. 10 YEAR RENEWAL - Every owner or operator of a wireless telecommunication facility shall renew the facility permit at least every ten (10) years from the date of initial approval. If a permit or other entitlement for use is not renewed, it shall automatically become null and void without notice or hearing ten (10) years after it is issued, or upon cessation of use for more than a year and a day, whichever comes first. Unless a new use permit or entitlement of use is issued, within one hundred twenty (120) days after a permit becomes null and void all improvements, including foundations and appurtenant ground wires, shall be removed from the property and the site restored to its original pre-installation condition within one hundred eighty (180) days of nonrenewal or abandonment. [SDR] [PLANNING]
20. MINIMIZE NOISE - The facility shall be operated in such a manner so as to minimize any possible disruption caused by noise. Backup generators shall only be operated during periods of power outages, and shall not be tested on weekends or holidays, or between the hours of 10:00 p.m. and 7:00 a.m. on weekday nights. At no time shall equipment noise from any source exceed an exterior noise level of 50 dB at the nearest residential property line during night time hours and 60 dB during day time hours. [SDR] [PLANNING]

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21. RF EMISSIONS - Certification must be provided that the proposed facility will at all times comply with all applicable health requirements and standards pertaining to RF emissions. [SDR] [PLANNING]
 22. MAINTAIN CURRENT INFORMATION - The owner or operator shall maintain, at all times, a sign mounted on the outside fence showing the operator name, site number and emergency contact telephone number. The owner or operator of the facility shall also submit and maintain current at all times basic contact and site information on a form to be supplied by the city. The applicant shall notify city of any changes to the information submitted within thirty (30) days of any change, including change of the name or legal status of the owner or operator. This information shall include, but is not limited to the following:
 - a) Identity, including name, address and telephone number, and legal status of the owner of the facility including official identification numbers and FCC certification, and if different from the owner, the identity and legal status of the person or entity responsible for operating the facility.
 - b) Name, address and telephone number of a local contact person for emergencies.
 - c) Name, address and telephone number of a local contact person to address maintenance issues associated with the ground enclosure and overall site.
 - d) Type of service provided. [SDR] [PLANNING]
 23. GOOD REPAIR - All facilities and related equipment, including lighting, fences, shields, cabinets, and poles, shall be maintained in good repair, free from trash, debris, litter and graffiti and other forms of vandalism, and any damage from any cause shall be repaired as soon as reasonably possible so as to minimize occurrences of dangerous conditions or visual blight. Graffiti shall be removed from any facility or equipment as soon as practicable, and in no instance more than forty-eight (48) hours from the time of notification by the city. [SDR] [PLANNING]
 24. GENERATOR USE – Use of the generator shall be limited to events of power outage only and limited weekly testing.
 25. GENERATOR MAINTENANCE – The generator shall be maintained at all times per manufacturer’s specifications.
 26. RESPONSIBILITY TO MAINTAIN - The owner or operator of the facility shall routinely and regularly inspect each site to ensure compliance with the standards set forth in the Telecommunications Ordinance. [SDR] [PLANNING]
 27. NO INTERFERENCE WITH CITY COMMUNICATION SYSTEMS - The facility operator shall be strictly liable for interference caused by the facility with city communication systems. The operator shall be responsible for all labor and equipment costs for determining the source of the interference, all costs associated with eliminating the interference, (including but not limited to filtering, installing cavities, installing directional antennas, powering down systems, and engineering analysis), and all costs arising from third party claims against the city attributable to the interference. [SDR] [PLANNING]



PLANNING DIVISION
CITY OF SUNNYVALE
P.O. BOX 3707
SUNNYVALE, CALIFORNIA 94088-3707

File Number: 2010-7108
No. 10-09

ATTACHMENT C
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**NOTICE OF INTENT TO ADOPT
NEGATIVE DECLARATION**

This form is provided as a notification of an intent to adopt a Negative Declaration which has been prepared in compliance with the provisions of the California Environmental Quality Act of 1970, as amended, and Resolution #193-86.

PROJECT TITLE:

Application for a Use Permit by **Verizon Wireless / Pacific Gas And Electric Co.**

PROJECT DESCRIPTION AND LOCATION (APN):

2010-7108: Verizon Wireless [Applicant] Pacific Gas and Electric Co. [Owner] Application for a Use Permit to allow colocation of a fourth wireless telecommunications carrier to add nine antennas on an existing lattice tower and associated ground equipment, including an emergency back-up generator located at **757 Lois Avenue**. (APN: 198-25-010)NC

WHERE TO VIEW THIS DOCUMENT:

The **Negative Declaration**, its supporting documentation and details relating to the project are on file and available for review and comment in the Office of the Secretary of the Planning Commission, City Hall, 456 West Olive Avenue, Sunnyvale.

This **Negative Declaration** may be protested in writing by any person prior to 5:00 p.m. on **Monday, August 23, 2010**. Protest shall be filed in the Department of Community Development, 456 W. Olive Avenue, Sunnyvale and shall include a written statement specifying anticipated environmental effects which may be significant. A protest of a **Negative Declaration** will be considered by the adopting authority, whose action on the protest may be appealed.

HEARING INFORMATION:

A public hearing on the project is scheduled for:

Monday, August 23, 2010 at 8:00 p.m. in the Council Chambers, City Hall, 456 West Olive Avenue, Sunnyvale.

TOXIC SITE INFORMATION:

(No) listed toxic sites are present at the project location.

Circulated On August 3, 2010

Signed: *Gerri Caruso*
Gerri Caruso, Principal Planner

Project Nar

| | |
|--|--|
| Project Title | Use Permit for 757 Lois Avenue |
| Lead Agency Name and Address | City of Sunnyvale P.O. Box 3707, Sunnyvale, CA 94088-3707 |
| Contact Person | Noren Caliva, Associate Planner |
| Phone Number | 408-730-7637 |
| Project Location | 757 Lois Avenue |
| Applicant's Name | Verizon Wireless |
| Project Address | 757 Lois Avenue Sunnyvale, CA 94087 |
| Zoning | R-0 (Low Density Residential) |
| General Plan | Residential Low Density |
| Other Public Agencies whose approval is required | None |

DESCRIPTION OF THE PROJECT:

The project is a Use Permit to allow co-location of a fourth wireless telecommunications carrier on an existing PG&E (Pacific Gas & Electric) lattice tower.

DETAILED PROJECT DESCRIPTION:

On-site Development: The existing site is developed with two PG&E lattice towers. The applicant proposes to add nine panel antennas on the northerly tower (right side facing Lois Avenue). The panel antennas will be arranged in two arrays, with six antennas placed on the tower at a height of 50 feet and three antennas at a height of 45 feet, beneath T-Mobile's existing antennas. Each antenna is approximately 4 feet in height and 1 foot in width.

A new 464 square foot masonry enclosure will be built behind the subject lattice tower (facing Dona Avenue) and will fully screen associated ground equipment at a height of 10 feet. Ground equipment will consist of seven equipment cabinets, one GPS (Global Positioning System) antenna, and one emergency back-up generator. The proposed generator will be 30-kilowatt SD030 John Deere generator with the capacity for 110 gallons of diesel fuel (see attached specifications).

The proposed equipment cabinets/batteries can power the site for up to 4 hours in the event of power loss. The proposed back-up generator would be used in power loss events lasting more than 4 hours. In addition to its operation during power outages the proposed generator will be tested once a week for a period of approximately 20 minutes, on a weekday during daytime hours.

The applicant has submitted a Radio Frequency exposure study conducted by Hammett & Edison, Inc, dated February 25, 2010, indicating compliance with FCC standards for individual and cumulative impacts (see attached letter).

Construction Activities and Schedule: On-site construction activity is limited to the installation of panel antennas and cabling on the existing lattice tower, construction of a new masonry ground enclosure, and installation of ground equipment inside the masonry enclosure. The project will be subject to the Sunnyvale Municipal Code requirements for noise and hours of construction contained in Chapters 19.42.0.0 and 16.08.030.

Surrounding Uses and Setting: The subject site is a PG&E right-of-way with two lattice towers that contain high-tension power lines. The site is located within a single-family residential neighborhood with homes adjacent to the site on all sides.

Off-site Improvements: No off-site improvements are proposed with this project.

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 17, "Earlier Analysis," may be cross-referenced).
5. Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (d). In this case, a brief discussion should identify the following:
6. Earlier Analysis Used. Identify and state where they are available for review.
7. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
8. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project
9. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

Project Nar

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities/Service Systems |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Population/Housing | |

MANDATORY FINDINGS OF SIGNIFICANCE (see checklist for further information):

Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Yes
 No

Mandatory Findings of Significance? Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)?

Yes
 No

Mandatory Findings of Significance? Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Yes
 No

Project No:

DETERMINATION:

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potential significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Checklist Preparer: Noren Caliva

Date: August 2, 2010

Title: Associate Planner

City of Sunnyvale

Signature:

Noren Caliva

| Planning | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| Planning | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|---|
| 1. Aesthetics -Substantially damage scenic resources, including, but not limited to trees, historic buildings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale General Plan Map, Open Space Sub-element www.sunnyvaleplanning.com Project Description |
| 2. Aesthetics -Substantially degrade the existing visual character or quality of the site and its surroundings including significant adverse visual changes to neighborhood character? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale General Plan Map, Open Space Sub-element www.sunnyvaleplanning.com Project Description |
| 3. Aesthetics -Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale General Plan Map, Open Space Sub-element www.sunnyvaleplanning.com Project Description |
| 4. Population and Housing - Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) in a way that is inconsistent with the Sunnyvale General Plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Land Use and Transportation Element of the General Plan, General Plan Map www.sunnyvaleplanning.com Project Description |
| 5. Population and Housing - Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Housing Sub-Element, Land Use and Transportation Element and General Plan Map www.sunnyvaleplanning.com Project Description |
| 6. Population and Housing - Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Housing Sub-Element www.sunnyvaleplanning.com Project Description |
| 7. Land Use Planning - Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale General Plan Map www.sunnyvaleplanning.com Project Description |

| Planning | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|---|
| 8. Land Use Planning conflict - With the Sunnyvale General Plan, Zoning Ordinance, San Francisco Bay Conservation and Development Commission (BCDC) area or related specific plan adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Land Use and Transportation Element, Sunnyvale General Plan, Title 19 (Zoning) of the Sunnyvale Municipal Code http://qcode.us/codes/sunnyvale/view.php?topic=19&frames=off |
| 9. Transportation and Traffic - Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Parking Requirements (Section 19.46) in the Sunnyvale Municipal Code http://qcode.us/codes/sunnyvale/view.php?topic=19-4-19_46&frames=off |
| 10. For a project located the Moffett Field AICUZ or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Moffett Field AICUZ, Sunnyvale Zoning Map, Sunnyvale General Plan Map www.sunnyvaleplanning.com |
| 11. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | There are no private airstrips in or in the vicinity of Sunnyvale |
| 12. For a project within the vicinity of Moffett Federal Airfield, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Moffett Field AICUZ, Sunnyvale Zoning Map, Sunnyvale General Plan Map www.sunnyvaleplanning.com |
| 13. Agricultural Resources - Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Zoning Map www.sunnyvaleplanning.com |

| Planning | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| 14. Noise - Exposure of persons to or generation of noise levels in excess of standards established in the Noise Sub-Element, Noise limits in the Sunnyvale Municipal Code, or applicable standards of the California Building Code? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sunnyvale Noise Sub-element, SMC www.sunnyvaleplanning.com 19.42 Noise Ordinance http://gcode.us/codes/sunnyvale/view.php?topic=19&frames=off |
| 15. Noise -Exposure of persons to or generation of excessive groundborne vibration? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Noise Sub-Element www.sunnyvaleplanning.com Project Description |
| 16. Noise - A substantial permanent or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sunnyvale Noise Sub-element www.sunnyvaleplanning.com |
| 17. Biological Resources - Have a substantially adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | General Plan Map Project Description |
| 18. Biological Resources -Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | General Plan Map Project Description |
| 19. Biological Resources -Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | General Plan Map Project Description |

| Planning | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| 20. Biological Resources -Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | SMC 19.90 Tree Preservation Ordinance Sunnyvale Inventory of Heritage Trees |
| 21. Biological Resources -Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description |
| 22. Historic and Cultural Resources - Cause a substantial adverse change in the significance of a historical resource or a substantial adverse change in an archeological resource? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Heritage Preservation Sub-Element, Sunnyvale Inventory or Heritage Resources The United States Secretary of the Interior's "Guidelines for Rehabilitation" Criteria of the National Register of Historic Places |
| 23. Historic and Cultural Resources - Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description |
| 24. Public Services - Would the project result in substantial adverse physical impacts associated with the provision of new or expanded public schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | The following public school districts are located in the City of Sunnyvale: Fremont Union High School District, Sunnyvale Elementary School District, Cupertino Union School District and Santa Clara Unified School District. Project Description |
| 25. Air Quality - Conflict with or obstruct implementation of the BAAQMD air quality plan? How close is the use to a major road, hwy. or freeway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | BAAQMD CEQA Guidelines Sunnyvale General Plan Map Sunnyvale Air Quality Sub-Element www.sunnyvaleplanning.com |

| Planning | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| 26. Air Quality - Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | BAAQMD CEQA Guidelines Project Description |
| 27. Air Quality -Would the project conflict with any applicable plan, policy or regulation of any agency adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | BAAQMD CEQA Guidelines Project Description |
| 28. Air Quality -Violate any air quality standard or contribute substantially to an existing or projected air quality violation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | BAAQMD CEQA Guidelines Sunnyvale Air Quality Sub-Element Project Description |
| 29. Air Quality -Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | BAAQMD CEQA Guidelines Sunnyvale Air Quality Sub-Element www.sunnyvaleplanning.com Project Description |
| 30. Air Quality -Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | BAAQMD CEQA Guidelines Sunnyvale Air Quality Sub-Element www.sunnyvaleplanning.com Project Description |
| 31. Seismic Safety -Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Seismic Safety and Safety Sub-Element of the Sunnyvale General Plan www.sunnyvaleplanning.com |
| 32. Seismic Safety - Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Seismic Safety and Safety Sub-Element of the Sunnyvale General Plan www.sunnyvaleplanning.com |

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| Planning | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| 33. Seismic Safety-Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Seismic Safety and Safety Sub-Element of the Sunnyvale General Plan www.sunnyvaleplanning.com |
| 34. Seismic Safety-Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Seismic Safety and Safety Sub-Element of the Sunnyvale General Plan www.sunnyvaleplanning.com |

Further Discussion if "Less Than Significant" with or without mitigation:

Noise: The proposed generator will be located approximately 51 feet from the closest adjacent residential property line to the north. In the absence of a significant power outage, the generator will be operated less than two hours per month for testing purposes. The applicant has consulted with noise consultant, Charles M. Salter Associates, to develop a sound-attenuated enclosure to reduce overall noise. As proposed, the masonry enclosure will be 10-foot tall and the inner surface of the inner wall will be covered with acoustically absorptive panels (see attached plans and noise study conducted by Charles M. Salter Associates, dated April 27, 2010). The proposed sound-attenuated enclosure is expected to reduce noise levels to the nearest residential property line to no more than 50 dB, and is consistent with the Sunnyvale Municipal Code requirements regarding operational noise levels at property lines.

Construction of the project will also result in short-term and temporary noise. Through the City's implementation of the Municipal Code noise regulations contained in Chapters 19.42.030 and 16.08.030, this impact will be lessened to a less than significant level during construction.

Air Quality: The proposed generator will be 30-kilowatt SD030 John Deere generator with the capacity for 110 gallons of diesel fuel, and will result in particulate matter emissions. Similar engines are readily available commercially and require no permit for purchase or operation. A permit is not required by the Bay Area Air Quality Management District (BAAQMD) based on the low kilowatt level, as long as the generator is maintained per manufacturer's specifications. The applicant has submitted information from the United States Environmental Protection Agency and California Environmental Protection Agency (EPA) Air Resources Board indicating that diesel engines of the type used in the proposed generator (Engine Family 9JDXL02.4074) meet Federal and State standards for particulate matter emissions. The proposed generator will not have a significant impact on air quality or on sensitive receptors; therefore no additional mitigation measures are necessary.

Biological Resources: The proposed project is expected to have a less than significant impact on existing biological resources. As required by the California Department of Fish and Game, the CEQA document filing fee will be paid upon recordation of the Notice of Determination.

Responsible Division: Planning Division

Completed by: Noren Caliva

Date: August 2, 2010

Project

| | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| Transportation | | | | | |
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| 35. Exceeds the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all modes of transportation including nonmotorized travel and all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian walkways, bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | City's Land Use and Transportation Element, Santa Clara County Transportation Plan, and AASHTO: A Policy on Geometric Design of Highways and Streets. |
| 36. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measurements, or other standards established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Santa Clara County Congestion Management Program and Technical Guidelines (for conducting TIA and LOS thresholds). |
| 37. Results in a change in air traffic patterns, including either an increase in air traffic levels or a change in flight patterns or location that results in substantial safety risks to vehicles, bicycles, or pedestrians? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale General Plan including the Land Use and Transportation Element |
| 38. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | City and CA Standard Plans & Standard Specifications |
| 39. Conflict with adopted policies, plans, or programs regarding public transit or nonmotorized transportation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Bicycle Plan, VTA Bicycle Technical Guidelines, and VTA Short Range Transit Plan |

Project

| Transportation | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| 40. Affect the multi-modal performance of hte highway and/or street and/or rail and/or off road nonmotorized trail transportation facilities, in terms of structural, operational, or perception-based measures of effectiveness (e.g. quality of service for nonmotorized and transit modes)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | VTA Community Design and Transportation Manual, and Sunnyvale Neighborhood Traffic Calming Program. |
| 41. Reduce, sever, or eliminate pedestrian or bicycle circulation or access, or preclude future planned and approved bicycle or pedestrian circulation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Bicycle Plan, Pedestrian and Bicycle Opportunities Studies and associated capital projects. |
| 42. Cause a degradation of the performance or availability of all transit including buses, light or heavy rail for people or goods movement? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | VTA Transit Operations Performance Report, VTA Short Range Transit Plan, and Valley Transportation Plan for 2035. |

Further Discussion if "Less Than Significant" with or without mitigation: None required.

Responsible Division: Transportation & Traffic Division

Completed by: Noren Caliva

Date: August 2, 2010

Project

| Building | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| Building | | | | | |
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| 43. Hydrology and Water Quality - Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | FEMA Flood Insurance Rate Map Effective 5/18/09 www.sunnyvaleplanning.com , California Building Code, Title 16 (Building) of the Sunnyvale Municipal Code Project Description |
| 44. Hydrology and Water Quality - Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | FEMA Flood Insurance Rate Map Effective 5/18/09 www.sunnyvaleplanning.com , California Building Code, Title 16 (Building) of the Sunnyvale Municipal Code Project Description |
| 45. Hydrology and Water Quality - Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1995 ABAG Dam Inundation Map www.abag.ca.gov , California Building Code, Title 16 (Building) of the Sunnyvale Municipal Code Project Description |
| 46. Geology and Soils -Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Municipal Code 12.60, Storm Water Quality Best Sunnyvale Management Practices Guideline Manual Project Description |
| 47. Geology and Soils -Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Safety and Seismic Safety Sub-Element, www.sunnyvaleplanning.com California Plumbing, Mechanical, and Electrical Codes and Title 16 (Building) of the Sunnyvale Municipal Code |

Project

| Building | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|---|
| 48. Geology and Soils -Be located on expansive soil, as defined by the current building code, creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | California Plumbing, Mechanical, and Electrical Codes and Title 16 (Building) of the Sunnyvale Municipal Code |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|---|

Further Discussion if "Less Than Significant" with or without mitigation: None required.

Responsible Division: Building Division Completed by: Noren Caliva Date: August 2, 2010

Project

| Engineering | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
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| Engineering | | | | | |
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| 49. Utilities and Service Systems: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description Sunnyvale Wastewater Management Sub-Element www.sunnyvaleplanning.com |
| 50. Utilities and Service Systems: Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description Sunnyvale Waste Water Management Sub-Element Water Resources Sub-Element www.sunnyvaleplanning.com |
| 51. Utilities and Service Systems: Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description Sunnyvale Waste Water Management Sub-Element Water Resources Sub-Element www.sunnyvaleplanning.com |
| 52. Utilities and Service Systems: Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description Water Resources Sub-Element www.sunnyvaleplanning.com |
| 53. Utilities and Service Systems: Result in a determination by the wastewater treatment provider which services or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description Sunnyvale Wastewater Management Sub-Element www.sunnyvaleplanning.com |
| 54. Utilities and Service Systems: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Solid Waste Management Sub-Element www.sunnyvaleplanning.com |

| Engineering | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
|--|--------------------------------|--------------------------------|--------------------------|-------------------------------------|--|
| 55. Hydrology and Water Quality - Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Regional Water Quality Control Board (RWQCB) Region 2 Municipal Regional Permit |
| 56. Hydrology and Water Quality - Substantially degrade groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Santa Clara Valley Water District Groundwater Protection Ordinance www.valleywater.org |
| 57. Hydrology and Water Quality - Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project description Water Resources Sub-Element www.sunnyvaleplanning.com |
| 58. Hydrology and Water Quality - Create or contribute runoff which would exceed the capacity of existing or planned storm water drainage systems in a manner which could create flooding or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | RWQCB, Region 2 Municipal Regional Permit, Stormwater Quality BMP Guidance Manual for New and Redevelopment Projects www.sunnyvaleplanning.com |
| 59. Hydrology and Water Quality - Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Santa Clara Valley Water District (SCVWD) Guidelines and Standards for Land Use Near Streams www.valleywater.org City of Sunnyvale Stormwater Quality Best Management Practices (BMP) Guidance Manual for New and Redevelopment Projects www.sunnyvaleplanning.com |

| | | | | | |
|-------------|--------------------------------|--------------------------------|-----------------------|-----------|---|
| Engineering | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
|-------------|--------------------------------|--------------------------------|-----------------------|-----------|---|

| | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|--|
| 60. Utilities and Service Systems: Comply with federal, state, and local statues and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Solid Waste Management Sub-Element of the Sunnyvale General Plan www.sunnyvaleplanning.com |
| 61. Public Services Infrastructure? Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description |

Further Discussion if "Less Than Significant" with or without mitigation: No population growth is expected as a result of this project, and the project will serve the existing population. Additionally, no new infrastructure is required for the proposed project.

Responsible Division: Public Works Engineering Division Completed by: Noren Caliva Date: August 2, 2010

Project N

| | | | | | |
|-------------------------------------|--------------------------------|--------------------------------|-----------------------|-----------|---|
| Public Safety – Hazardous Materials | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
|-------------------------------------|--------------------------------|--------------------------------|-----------------------|-----------|---|

| Public Safety | | | | | |
|---|--------------------------------|--------------------------------|--------------------------|-------------------------------------|---|
| | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
| 62. Public Services Police and Fire protection - Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sunnyvale Law Enforcement Sub-Element Sunnyvale Fire Services Sub-Element Safety and Seismic Safety Sub-Element www.sunnyvaleplanning.com |
| 63. Public Services Police and Fire protection - Would the project result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | California Building Code SMC Section 16.52 Fire Code |
| Further Discussion if "Less Than Significant" with or without mitigation: None required. | | | | | |
| Responsible Division: Department of Public Safety | | Completed by: Noren Caliva | | Date: August 2, 2010 | |

| | | | | | |
|-------------------------------------|--------------------------------|--------------------------------|-----------------------|-----------|---|
| Public Safety – Hazardous Materials | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
|-------------------------------------|--------------------------------|--------------------------------|-----------------------|-----------|---|

| Public Safety – Hazardous Materials | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|---|
| 64. Hazards and Hazardous Materials - Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description |
| 65. Hazards and Hazardous Materials - Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description |
| 66. Hazards and Hazardous Materials - Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description |
| 67. Hazards and Hazardous Materials - Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Description Hazardous Waste & Substances List (State of California) List of Known Contaminants in Sunnyvale |

Project N

| | | | | | |
|-------------------------------------|--------------------------------|--------------------------------|-----------------------|-----------|---|
| Public Safety – Hazardous Materials | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
|-------------------------------------|--------------------------------|--------------------------------|-----------------------|-----------|---|

| | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|---|
| 68. Hazards and Hazardous Materials - Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Seismic Safety and Safety Sub-Element of the Sunnyvale General Plan www.sunnyvaleplanning.com |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|---|

Further Discussion if "Less Than Significant" with or without mitigation: None required.

Responsible Division: Department of Public Safety Completed by: Noren Caliva Date: August 2, 2010

Project

| Community Services | Potentially Significant Impact | Less than Sig. With Mitigation | Less Than Significant | No Impact | Source Other Than Project Description and Plans |
|--------------------|--------------------------------|--------------------------------|-----------------------|-----------|---|
|--------------------|--------------------------------|--------------------------------|-----------------------|-----------|---|

| Community Services | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|--|
| 69. Public Services Parks? Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Open Space & Recreation Sub-Element www.sunnyvaleplanning.com Project Description |
| 70. Recreation - Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Open Space & Recreation Sub-Element www.sunnyvaleplanning.com Project Description |
| 71. Recreation - Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Open Space & Recreation Sub-Element www.sunnyvaleplanning.com Project Description |

Further Discussion if "Less Than Significant" with or without mitigation: None required.

Responsible Division: Department of Community Service

Completed by: Noren Caliva

Date: August 2, 2010

Note:All references are the most recent version as of the date the Initial Study was prepared:

City of Sunnyvale General Plan:

- A. General Plan Map
- B. Air Quality Sub-Element (1993)
- C. Arts Sub-Element (1995)
- D. Community Design Sub-Element (1990)
- E. Community Engagement Sub-Element (2007)
- F. Fire Services Sub-Element (1995)
- G. Community Vision (2007)
- H. Fiscal Sub-Element (2006)
- I. Heritage Preservation Sub-Element (1995)
- J. Housing & Community Revitalization Sub-Element (2009)
- K. Land Use & Transportation Sub-Element (1997)
Revised 4/28/09 with Allocation of Street Space Policies
- L. Law Enforcement Sub-Element (1995)
- M. Legislative Management Sub-Element (1999)
- N. Library Sub-Element (2003)
- O. Noise Sub-Element (1997)
- P. Open Space and Recreation Sub-Element (2006)
*Updated with Parks of the Future Study 4/28/2009.
Revised 4/24/09.*
- Q. Safety & Seismic Safety Sub-Element (2008)
- R. Socio-Economic Sub-Element (1989)
- S. Solid Waste Management Sub-Element (1996)
- T. Support Services Sub-Element (1988)
- U. Surface Run-off Sub-Element (1993)
- V. Wastewater Management Sub-Element (1996)
- W. Water Resources Sub-Element (2008)

City of Sunnyvale Municipal Code:

- A. Title 8 Health and Sanitation
- B. Title 9 Public Peace, Safety or Welfare
- C. Title 10 Vehicles and Traffic
- D. Title 12 Water and Sewers
- E. Chapter 12.60 Storm Water Management
- F. Title 13 Streets and Sidewalks
- G. Title 16 Buildings and Construction
- H. Chapter 16.52 Fire Code
- I. Chapter 16.54 Building Standards for Buildings Exceeding Seventy-Five Feet in Height
- J. Title 18 Subdivisions
- K. Title 19 Zoning
- L. Chapter 19.28 Downtown Specific Plan District
- M. Chapter 19.29 Moffett Park Specific plan District
- N. Chapter 19.39 Green Building Regulations
- O. Chapter 19.42 Operating Standards
- P. Chapter 19.54 Wireless Telecommunication Facilities

- Q. Chapter 19.81 Streamside Development Review
- R. Chapter 19.96 Heritage Preservation
- S. Title 20 Hazardous Materials

Specific Plans:

- A. Downtown Specific Plan
- B. El Camino Real Precise Plan
- C. Lockheed Site Master Use Permit
- D. Moffett Park Specific Plan
- E. 101 & Lawrence Site Specific Plan
- F. Southern Pacific Corridor Plan
- G. Lakeside Specific Plan
- H. Arques Campus Specific Plan

Environmental Impact Reports:

- A. Futures Study Environmental Impact Report
- B. Lockheed Site Master Use Permit Environmental Impact Report
- C. Tasman Corridor LRT Environmental Impact Study (supplemental)
- D. Kaiser Permanente Medical Center Replacement Center Environmental Impact Report (City of Santa Clara)
- E. Downtown Development Program Environmental Impact Report
- F. Caribbean-Moffett Park Environmental Impact Report
- G. Southern Pacific Corridor Plan Environmental Impact Report
- H. East Sunnyvale ITR General Plan Amendment EIR
- I. Palo Alto Medical Foundation Medical Clinic Project EIR
- J. Luminaire (Lawrence Station Road/Hwy 237 residential) EIR
- K. NASA Ames Development Plan Programmatic EIS
- L. Mary Avenue Overpass EIR
- M. Mathilda Avenue Bridge EIR

Maps:

- A. General Plan Map
- B. Zoning Map
- C. City of Sunnyvale Aerial Maps
- D. Flood Insurance Rate Maps (FEMA)
- E. Santa Clara County Assessors Parcel
- F. Utility Maps
- G. Air Installations Compatible Use Zones (AICUZ) Study Map

Note: All references are the most recent version as of the date the Initial Study was prepared:

H. Noise Sub-Element Appendix A 2010 Noise Conditions Map

H. Institute of Transportation Engineers - Transportation Planning Handbook

I. Institute of Transportation Engineers - Manual of Traffic Signal Design

J. Institute of Transportation Engineers - Transportation and Land Development

K. U.S. Dept. of Transportation Federal Highway Administration Manual on Uniform Traffic Control Devices for Street and Highways & CA Supplements

L. California Vehicle Code

M. Santa Clara County Congestion Management Program and Technical Guidelines

N. Santa Clara County Transportation Agency Short Range Transit Plan

O. Santa Clara County Transportation Plan

P. Traffic Volume Studies, City of Sunnyvale Public works Department of Traffic Engineering Division

Q. Statewide Integrated Traffic Records System

R. Sunnyvale Zoning Ordinance – including Titles 10 & 13

S. City of Sunnyvale General Plan – land Use and Transportation Element

T. City of Sunnyvale Bicycle Plan

U. City of Sunnyvale Neighborhood Traffic Calming Program

V. Valley Transportation Authority Bicycle Technical Guidelines

W. Valley Transportation Authority Community Design & Transportation – Manual of Best Practices for Integrating Transportation and Land Use

X. Santa Clara County Sub-Regional Deficiency Plan

Y. City of Sunnyvale Deficiency Plan

Z. AASHTO: A Policy on Geometric Design of Highways and Streets

Public Works:

A. Standard Specifications and Details of the Department of Public Works

B. Storm Drain Master Plan

C. Sanitary Sewer Master Plan

D. Water Master Plan

E. Solid Waste Management Plan of Santa Clara County

F. Geotechnical Investigation Reports

G. Engineering Division Project Files

Lists / Inventories:

A. Sunnyvale Cultural Resources Inventory List

B. Heritage Landmark Designation List

C. Santa Clara County Heritage Resource Inventory

D. Hazardous Waste & Substances Sites List (State of California)

E. List of Known Contaminants in Sunnyvale

F. USFWS / CA Dept. F&G Endangered and Threatened Animals of California

<http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf>

G. USFWS / CA Dept. F&G Endangered, Threatened and Rare Plants of California

<http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf>

Legislation / Acts / Bills / Resource Agency

Codes and Permits:

A. Subdivision Map Act

B. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit

C. Santa Clara County Valley Water District Groundwater Protection Ordinance

D. The Hazardous Waste and Substance Site List

www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm

E. The Leaking Underground Petroleum Storage Tank List

www.geotracker.waterboards.ca.gov

F. The Federal EPA Superfund List

www.epa.gov/region9/cleanup/california.html

G. Section 404 of Clean Water Act

Transportation:

A. California Department of Transportation Highway Design Manual

B. California Department of Transportation Traffic Manual

C. California Department of Transportation Standard Plans & Standard Specifications

D. Highway Capacity Manual

E. Institute of Transportation Engineers - Trip Generation Manual & Trip Generation Handbook

F. Institute of Transportation Engineers - Traffic Engineering Handbook

G. Institute of Transportation Engineers - Manual of Traffic Engineering Studies

ENVIRONMENTAL CHECKLIST REFERENCE LIST

Note:All references are the most recent version as of the date the Initial Study was prepared:

H. Subdivision and Parcel Map Files

Miscellaneous Agency Plans:

- A. ABAG Projections 2010
- B. Bay Area Clean Air Plan
- C. BAAQMD CEQA Guidelines
- J. Criteria of the National Register of Historic Places

Building Safety:

- A. California Building Code,
- B. California Energy Code
- C. California Plumbing Code,
- D. California Mechanical Code,
- E. California Electrical Code
- F. California Fire Code
- G. Title 16.52 Sunnyvale Municipal Code
- H. Title 16.53 Sunnyvale Municipal Code
- I. Title 16.54 Sunnyvale Municipal Code
- J. Title 19 California Code of Regulations

M. Project Green Building Checklist

N. Project LEED Checklist

Other:

- A. Plan Set, Verizon Wireless/Waterfront Engineering, May 8, 2010
- B. Radio Frequency Exposure Study, Hammett & Edison, Inc., February 25, 2010
- C. Noise Study, Charles M. Salter Associates, April 27, 2010
- D. Generator Specifications & Statement of Exhaust Emissions, Generac, May 14, 2009
- E. Generator Certificate of Conformity, United States Environmental Protection Agency, November 21, 2008
- F. Generator Certificate of Conformity, California Environmental Protection Agency Air Resources Board, December 12, 2008

Guidelines and Best Management Practices

- A. Storm Water Quality Best Management Practices Guidelines Manual 2007
- B. Sunnyvale Citywide Design Guidelines
- C. Sunnyvale Industrial Guidelines
- D. Sunnyvale Single-Family Design Techniques
- E. Sunnyvale Eichler Guidelines
- F. Blueprint for a Clean Bay
- G. SCVWD Guidelines and Standards for Land Use Near Streams
- H. The United States Secretary of the Interior 's Guidelines for Rehabilitation
- I. Criteria of the National Register of Historic Places

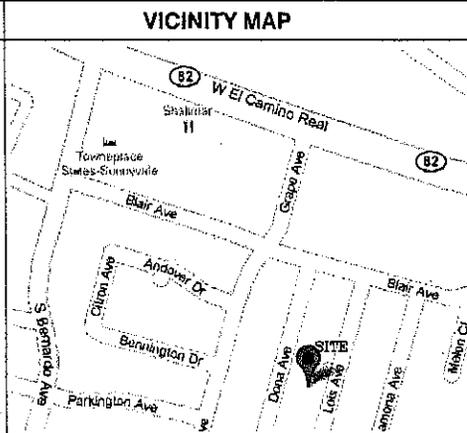
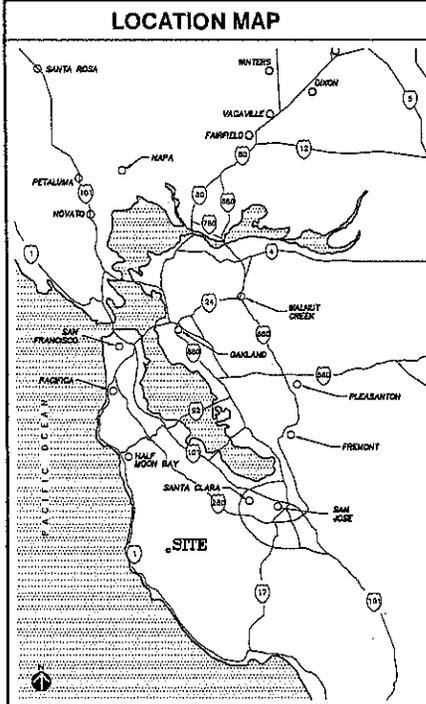
Additional Project References:

- A. Project Description
- B. Sunnyvale Project Environmental Information Form
- C. Project Development Plans dated 4/14/10
- D. Project Traffic Impact Analysis
- E. Project Noise Study
- F. Project Air Quality Analysis
- G. Field Inspection
- H. Project Site Plan dated 4/14/10
- I. Project construction schedule
- J. Project Draft Storm Water Management Plan
- K. Project Tree Inventory
- L. Project Tree Preservation Plan



W. SUNNYVALE
SITE LOCATION #205094
SAP # 40812340
WESTINGHOUSE TAP 60KV
LINE # 14/86
VZW-205094

757 LOIS ROAD
SUNNYVALE, CA 94087



DRIVING DIRECTIONS

- Head southwest on Mitchell Dr toward N Wiget Ln 0.3 mi
- Turn left at N Wiget Ln 0.3 mi
- Take the 2nd right onto Ygnacio Valley Rd 2.9 mi
- Continue on Hillside Ave 0.1 mi
- Turn left to merge onto I-880 S toward San Jose 33.7 mi
- Take the Mission Blvd/State Route 262 exit toward I-880 0.2 mi
- Keep right at the fork, follow signs for Mission Blvd W and merge onto Mission Blvd 0.9 mi
- Take the I-880 N ramp to Oakland/Moran Ave E 381 ft
- Keep left at the fork, follow signs for I-880 S and merge onto I-880 S 4.0 mi
- Take the CA-237 W exit toward Mountain View 0.8 mi
- Merge onto Southway Frey 0.1 mi
- Continue on CA-237 W 8.4 mi
- Take the exit onto CA-85 S toward CA-82 S/Los Gatos/Santa Cruz 0.7 mi
- Take the CA-85 S/El Camino Real exit toward Sunnyvale 0.2 mi
- Merge onto CA-82 S/W El Camino Real 0.9 mi
- Turn right at Grape Ave 1.1 mi
- Turn right at Lois Ave 492 ft
- Take the 1st left onto Blair Ave 492 ft
- Take the 2nd right onto Lois Ave Destination will be on the right 0.1 mi

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED AS NOT CONFORMING TO THESE CODES.

- CALIFORNIA ADMINISTRATIVE CODE (INCLUDING TITLES 24 & 25)
- CALIFORNIA BUILDING CODE (CBC) 2007
- CALIFORNIA MECHANICAL CODE (CMC) 2007
- CALIFORNIA PLUMBING CODE (CPC) 2007
- CALIFORNIA ELECTRIC CODE (CEC) 2007
- CALIFORNIA FIRE CODE (CFC) 2007
- COUNTY ORDINANCES

ACCESSIBILITY REQUIREMENTS:
 FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2007 CALIFORNIA BUILDING CODE.

PROJECT DESCRIPTION

- INSTALL A 16'x35' CMU BLOCK ENCLOSURE WITH FOUNDATION.
- INSTALL (7) OUTDOOR EQUIPMENT CABINETS TO FOUNDATION.
- INSTALL 30 KW GENERATOR WITH A UL2000S LISTED 132 GALLON DIESEL TANK TO FOUNDATION.
- ATTACH (8) PANEL ANTENNAS TO POLE TOWER.
- ATTACH (2) GPS ANTENNAS TO CMU BLOCK WALL.
- ROUTE AND CONNECT POWER AND TELCO TO EQUIPMENT.
- ROUTE AND CONNECT COAXIAL CABLE TO ANTENNAS.

SHEET INDEX

| | |
|-----|----------------------------|
| T-1 | TITLE SHEET |
| C-1 | SITE SURVEY |
| A-1 | OVERALL SITE PLAN |
| A-2 | EQUIPMENT PLAN AND DETAILS |
| A-3 | VERIZON EQUIPMENT LAYOUT |
| A-4 | ELEVATION VIEW |
| A-5 | ELEVATION VIEW |
| A-6 | ELEVATION VIEW |
| A-7 | ELEVATION VIEW |

| | | |
|------------------------------------|-----------------|------------|
| VERIZON WIRELESS - CONSTRUCTION | SIGNATURE _____ | DATE _____ |
| VERIZON WIRELESS - RF ENGINEER | SIGNATURE _____ | DATE _____ |
| VERIZON WIRELESS - EQUIP. ENGINEER | SIGNATURE _____ | DATE _____ |
| VERIZON WIRELESS - REAL ESTATE | SIGNATURE _____ | DATE _____ |
| PROPERTY OWNER - | SIGNATURE _____ | DATE _____ |
| RIDGE COMMUNICATION - ZONING | SIGNATURE _____ | DATE _____ |
| RIDGE COMMUNICATION - CONSTRUCTION | SIGNATURE _____ | DATE _____ |
| RIDGE COMMUNICATION - LEASING | SIGNATURE _____ | DATE _____ |



PROJECT TEAM

APPLICANT: VERIZON WIRELESS
 2785 MITCHELL DRIVE
 WALNUT CREEK, CA 94598
 JIM GRIFFIN
 PHONE: (925) 278-8333

AGENT: RIDGE COMMUNICATION, INC.
 12857 ALBERTS BLVD., SUITE #175
 SAN RAMON, CA
 KEITH SCHMID
 PHONE: (408) 870-1141

ENGINEER: WATERFRONT ENGINEERING
 5184 FRY ROAD
 VACAVILLE, CA 94987
 PHONE: (707) 448-8011
 FAX: (707) 448-8190

SURVEYOR: HOWARD SURVEYS
 5184 FRY ROAD
 VACAVILLE, CA 94987
 DENNIS WOOD
 PHONE: (707) 448-7332

DRAWER: PACIFIC GAS AND ELECTRIC
 77 BEALE STREET
 SAN FRANCISCO, CA 94105
 BOB BRADALL
 PHONE: (415) 915-9049

BUILDING/SITE DATA

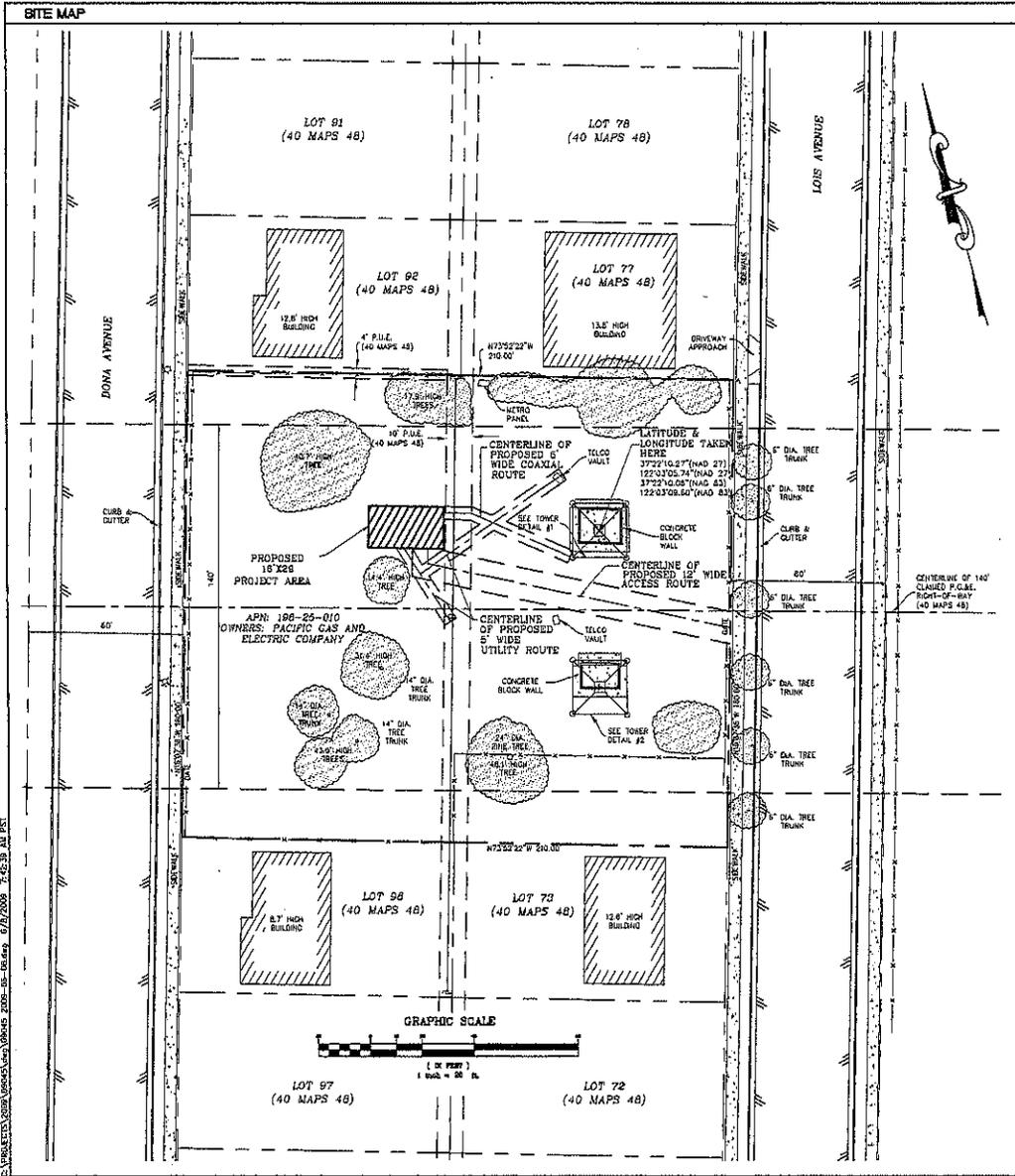
PSL NUMBER: 205094
 A.P.A.L: 198-25-010
 ZONING: R-0
 OCCUPANCY TYPE: UNOCCUPIED
 CONSTRUCTION TYPE: V-N

LATITUDE & LONGITUDE
 NAD 27: N: 37°22'10.27"
 W: 122°03'08.74"
 NAD 83: N: 37°22'10.04"
 W: 122°03'08.80"

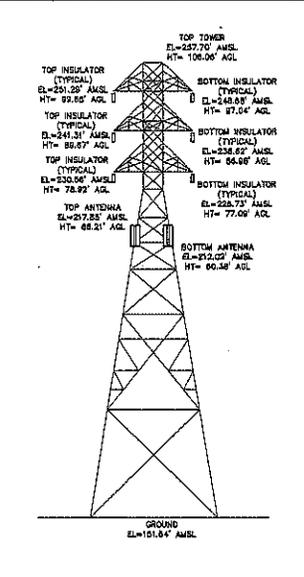
REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|----------|-------------------|
| 1 | 10/25/09 | ISSUE FOR REVIEW |
| 2 | 11/06/09 | MOVE GENERATOR |
| 3 | 11/23/09 | BOOK 2D'S |
| 4 | 12/20/09 | BOOK 2D'S |
| 5 | 1/16/10 | REVISION TOWER |
| 6 | 1/16/10 | ADD CLEARANCE ED. |
| 7 | 1/20/10 | |

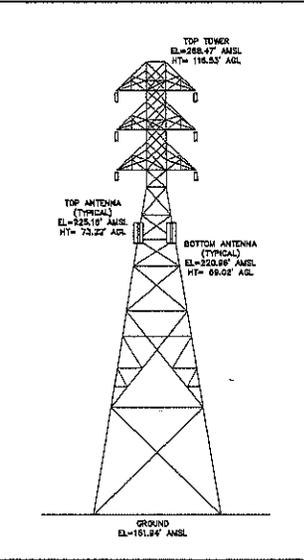
ATTACHMENT D
 Page 1 of 9



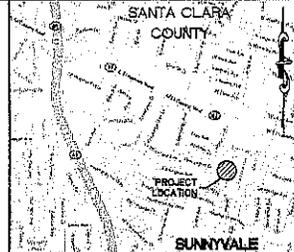
TOWER DETAIL #1 NOT TO SCALE



TOWER DETAIL #2 NOT TO SCALE



VICINITY MAP NOT TO SCALE



GENERAL NOTES

PROPERTY INFORMATION

OWNER: PACIFIC GAS & ELECTRIC
ADDRESS: 77 BEALE STREET
 SAN FRANCISCO, CA 94108
APN: 186-25-010
EXISTING GROUND ELEVATION: 64.21(2) (NAD83)

LESSOR'S LEGAL DESCRIPTION

LEGAL DESCRIPTION: IS FOUND IN PUBLIC NATIONAL TITLE COMPANY TITLE REPORT FILE NUMBER 09-2104708-PH, DATED AUGUST 4, 2009.
TITLE REPORT: THE REPORT WAS AVAILABLE AT THE TIME OF FIELD SURVEY. TITLE REPORT PROVIDED BY FIDELITY NATIONAL TITLE COMPANY. TITLE REPORT FILE NUMBER 09-2104708-PH, DATED AUGUST 4, 2009.

BASIS OF BEARING: BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM STATE PLANE COORDINATE ZONE 4 DETERMINED BY GPS OBSERVATIONS.

BENCHMARK: ELEVATION ESTABLISHED FROM GPS DERIVED ORTHOMETRIC HEIGHTS, APPLYING GEOID SEPARATIONS, CONSTRAINING TO NGS CONTROL STATION 14172 ELEVATION=453.0' (NAVD83)

SURVEY DATE: 09/24/09

SURVEYOR'S NOTES: ALL EASEMENTS CONTAINED WITHIN SAID TITLE REPORT AFFECTING THE IMMEDIATE AREA SUPERSEDE THE LEASE HAVE BEEN PLOTTED. SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE ISSUED. THE BOUNDARY SHOWN HEREON IS PLOTTED FROM SECOND INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.

UTILITY NOTES: SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT U.S.A. AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION, REMOVAL, RELOCATION AND/OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

LEGEND

- SITE BOUNDARY LINE
- OVERHEAD POWER LINE
- PROPERTY LINE
- EDGE OF PAVEMENT
- FENCELINE
- GROUND ELEVATION
- CONCRETE PAD
- AGL ABOVE GROUND LEVEL
- AMSL ABOVE MEAN SEA LEVEL

WOOD
 Land Surveying Professionals
 1800 S. Bascom Avenue, Suite 100, San Jose, CA 95128
 (408) 298-1000

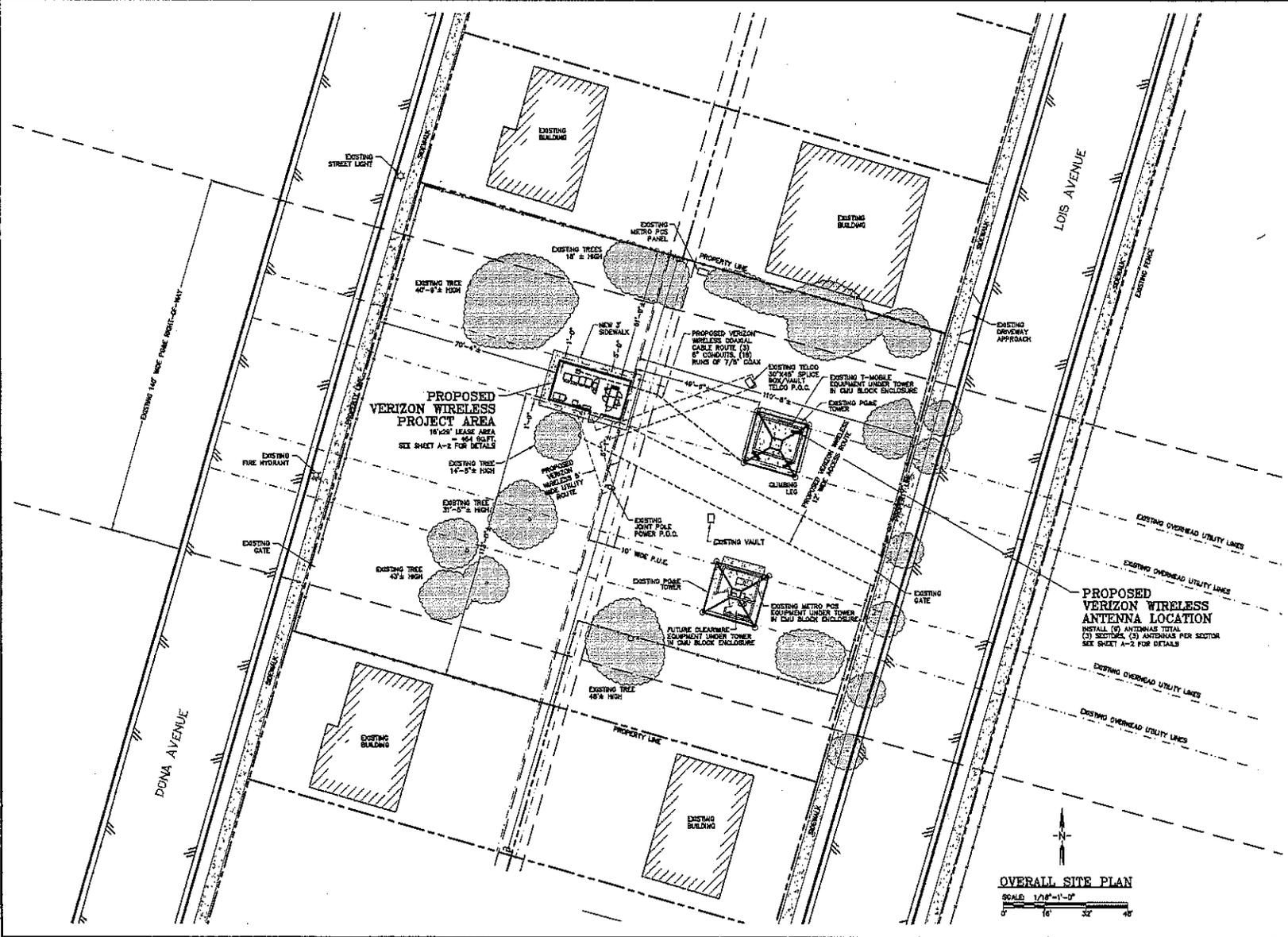
LOCKED LAND SURVEY
 Fred K. Hines
 No. 7900
 CP-12/31/09
 STATE OF CALIFORNIA

| NO. | DATE | DESCRIPTION |
|-----|----------|----------------------|
| 1 | 09/24/09 | ISSUED FOR PERMITS |
| 2 | 10/05/09 | REV #1 ADDED LEASE |
| 3 | 11/07/09 | REV #2 FEEL REQUIRES |
| 4 | 12/20/09 | REV #3 PER EMAIL |
| 5 | 12/20/09 | ISSUED FOR LOOK |

wireless
io
 8 000 101 516
 985-94-7

ATTACHMENT
Page 2 of 9
D
 DRAW JOB 1 SHEET

BOUNDARY SHOWN IS BASED ON RECORD INFORMATION AND FOUND MONUMENTATION. THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES SHOWN ARE APPROXIMATE.



REVISIONS

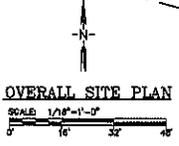
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|-----|----------|-------------------|
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| 2 | 10/22/08 | PER REDLINES |
| 3 | 11/05/08 | MOVE GENERATOR |
| 4 | 11/20/08 | MOVE ZPS |
| 5 | 12/23/08 | REMOVED TOWER |
| 6 | 12/23/08 | ADD CLEARANCE EQ. |

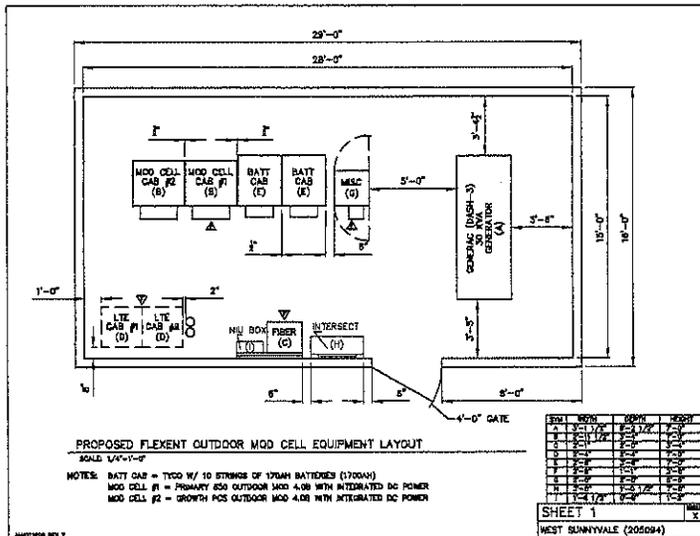
wireless
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SUN SAN
 DRAWN: [Signature]
 WBS JOB
 SHEET N1

945598 BLDG 8
 1 AVE. 1
 Page 3 of 9

ATTACHMENT D





- LEGEND:**
1. WAVE GUIDE ENTRY PORT
 2. METER GROUND BAR
 3. TELCO ENTRANCE PANEL (4' X 8' X 3/4")
 4. #1000 3-75A27 BATTERY MODULES (8V - 1016 AH)
 - 4.1 #1000 3-80A27 BATTERY MODULES (8V - 1140 AH)
 - 4.2 #1000 3-85A27 BATTERY MODULES (8V-1210 AH) MUST BE STACKED
 - 4.3 #1000 3-90A27 BATTERY MODULES (8V - 1040 AH)
 - 4.4 #1000 3-95A27 BATTERY MODULES (8V - 1100 AH)
 5. AIR CONDITIONING UNIT
 6. SECONDARY AC POWER DISTRIBUTION PANEL
 7. TRANSFER SWITCH (MANUAL OR AUTOMATIC)
 8. MAIN AC POWER DISTRIBUTION PANEL
 9. COMMERCIAL POWER DISCONNECT SWITCH
 10. FENVAL FIRE ALARM PANEL
 11. ALARM TERMINAL GUSKET
 12. IRRIGATION CONTROLLER
 13. HALON GAS STORAGE TANK/7M200 TANK
 14. +24V POWER BUSBAR
 15. -48V POWER BUSBAR
 16. LIGHTNING ARRESTOR
 17. ELECTROSTATIC DISCHARGE MAT (ESD MAT)
 18. SNAP CONNECTOR FOR ESD MAT
 19. TIME CLOCK PANEL
 20. AIR CONDITIONING CONTROL PANEL
 21. THERMOSTAT
 22. EXHAUST FAN CONTROL PANEL
 23. SURGE ARRESTOR
 24. DEMONSTRATOR
 25. TRANSFORMER
 26. FIRE EXTINGUISHER
 27. EXHAUST FAN
 28. AIR INTAKE
 29. APPLICTION PLUG
- NOTES:**
- EQP = EQUIPMENT FLOOR PLAN
PRD = POWER PLANT DETAILS
EZR = EQUIPMENT RACK PROFILES
SD = SITE INTERCONNECT DETAILS
--- = FUTURE
--- = EQUIPPED
- PERM +24V MODULAR POWER BAY (LORAIN OR AIRD)
PB +24V STANDARD POWER DISTRIBUTION BAYS (L/W LORAIN RLDD025 RECTIFIERS)
MISC MISCELLANEOUS BAY
AF AT&T ANTENNA INTERFACE FRAME
RF AT&T RADIO CHANNEL FRAME
LAF AT&T LINEAR AMPLIFIER FRAME
MB MICHIGANA BAY
CDPD CELLULAR DIGITAL PACKET DATA
AD ADVERTISE FRONT OF BAY LINEUP
- | REV | DATE | DESCRIPTION | BY | CHK |
|-----|----------|-------------|----|-----|
| 1 | 11/12/11 | | | |
| 2 | 11/12/11 | | | |
| 3 | 11/12/11 | | | |
| 4 | 11/12/11 | | | |
| 5 | 11/12/11 | | | |
| 6 | 11/12/11 | | | |
| 7 | 11/12/11 | | | |
| 8 | 11/12/11 | | | |
| 9 | 11/12/11 | | | |
| 10 | 11/12/11 | | | |
| 11 | 11/12/11 | | | |
| 12 | 11/12/11 | | | |
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| 14 | 11/12/11 | | | |
| 15 | 11/12/11 | | | |
| 16 | 11/12/11 | | | |
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| 21 | 11/12/11 | | | |
| 22 | 11/12/11 | | | |
| 23 | 11/12/11 | | | |
| 24 | 11/12/11 | | | |
| 25 | 11/12/11 | | | |
| 26 | 11/12/11 | | | |
| 27 | 11/12/11 | | | |
| 28 | 11/12/11 | | | |
| 29 | 11/12/11 | | | |

| NO. | DATE | DESCRIPTION | ISSUE FOR REVIEW | PER REVISIONS | MODE GENERATOR | REVISED TORQUE | ADD CLEARANCE ED |
|-----|----------|-------------|------------------|---------------|----------------|----------------|------------------|
| 1 | 10/15/09 | | | | | | |
| 2 | 10/22/09 | | | | | | |
| 3 | 11/05/09 | | | | | | |
| 4 | 12/01/09 | | | | | | |
| 5 | 12/01/09 | | | | | | |
| 6 | 12/01/09 | | | | | | |
| 7 | 5/26/10 | | | | | | |

verizon wireless

EQP: SUNNYVALE
DCS: X
REGION: X AREA: SUNNYVALE
LOCATION CODE: Z05094
SWITCH SITE NO: X
SITE NAME: WEST SUNNYVALE



Northstar Battery Lead and Acid weights per 12 Volt Battery

| Capacity (Ah) | Lead Weight (lb) | Acid Weight (lb) | Total Weight (lb) |
|---------------|------------------|------------------|-------------------|
| 100 | 10.0 | 10.0 | 20.0 |
| 120 | 12.0 | 12.0 | 24.0 |
| 150 | 15.0 | 15.0 | 30.0 |
| 200 | 20.0 | 20.0 | 40.0 |
| 250 | 25.0 | 25.0 | 50.0 |
| 300 | 30.0 | 30.0 | 60.0 |
| 350 | 35.0 | 35.0 | 70.0 |
| 400 | 40.0 | 40.0 | 80.0 |
| 450 | 45.0 | 45.0 | 90.0 |
| 500 | 50.0 | 50.0 | 100.0 |
| 550 | 55.0 | 55.0 | 110.0 |
| 600 | 60.0 | 60.0 | 120.0 |
| 650 | 65.0 | 65.0 | 130.0 |
| 700 | 70.0 | 70.0 | 140.0 |
| 750 | 75.0 | 75.0 | 150.0 |
| 800 | 80.0 | 80.0 | 160.0 |
| 850 | 85.0 | 85.0 | 170.0 |
| 900 | 90.0 | 90.0 | 180.0 |
| 950 | 95.0 | 95.0 | 190.0 |
| 1000 | 100.0 | 100.0 | 200.0 |

All weights and volumes are for 12V-monobloc



REVISIONS

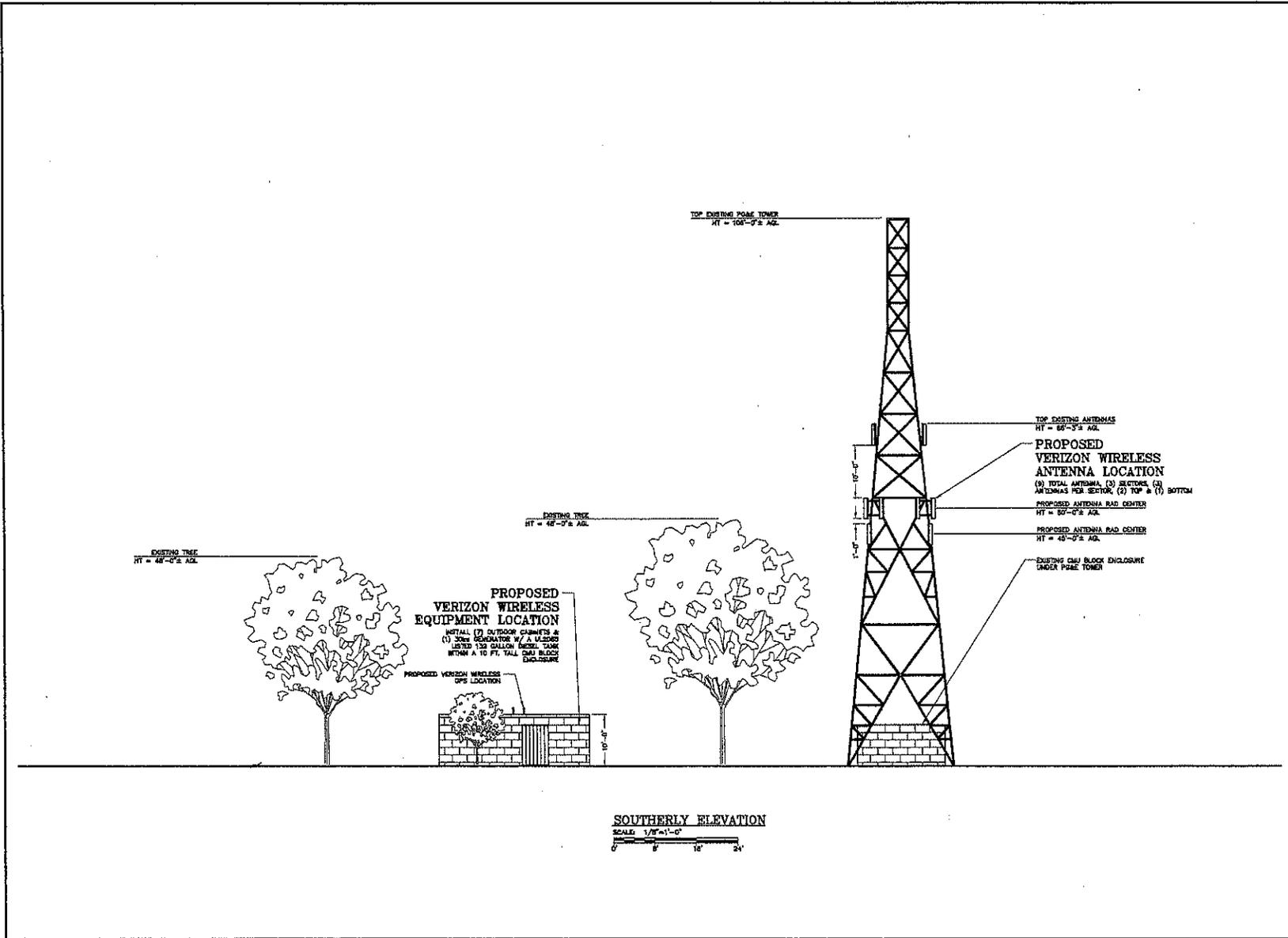
| NO. | DATE | DESCRIPTION | ISSUE FOR REVIEW | PER REVISIONS | MODE GENERATOR | REVISED TORQUE | ADD CLEARANCE ED |
|-----|----------|-------------|------------------|---------------|----------------|----------------|------------------|
| 1 | 10/15/09 | | | | | | |
| 2 | 10/22/09 | | | | | | |
| 3 | 11/05/09 | | | | | | |
| 4 | 12/01/09 | | | | | | |
| 5 | 12/01/09 | | | | | | |
| 6 | 12/01/09 | | | | | | |
| 7 | 5/26/10 | | | | | | |



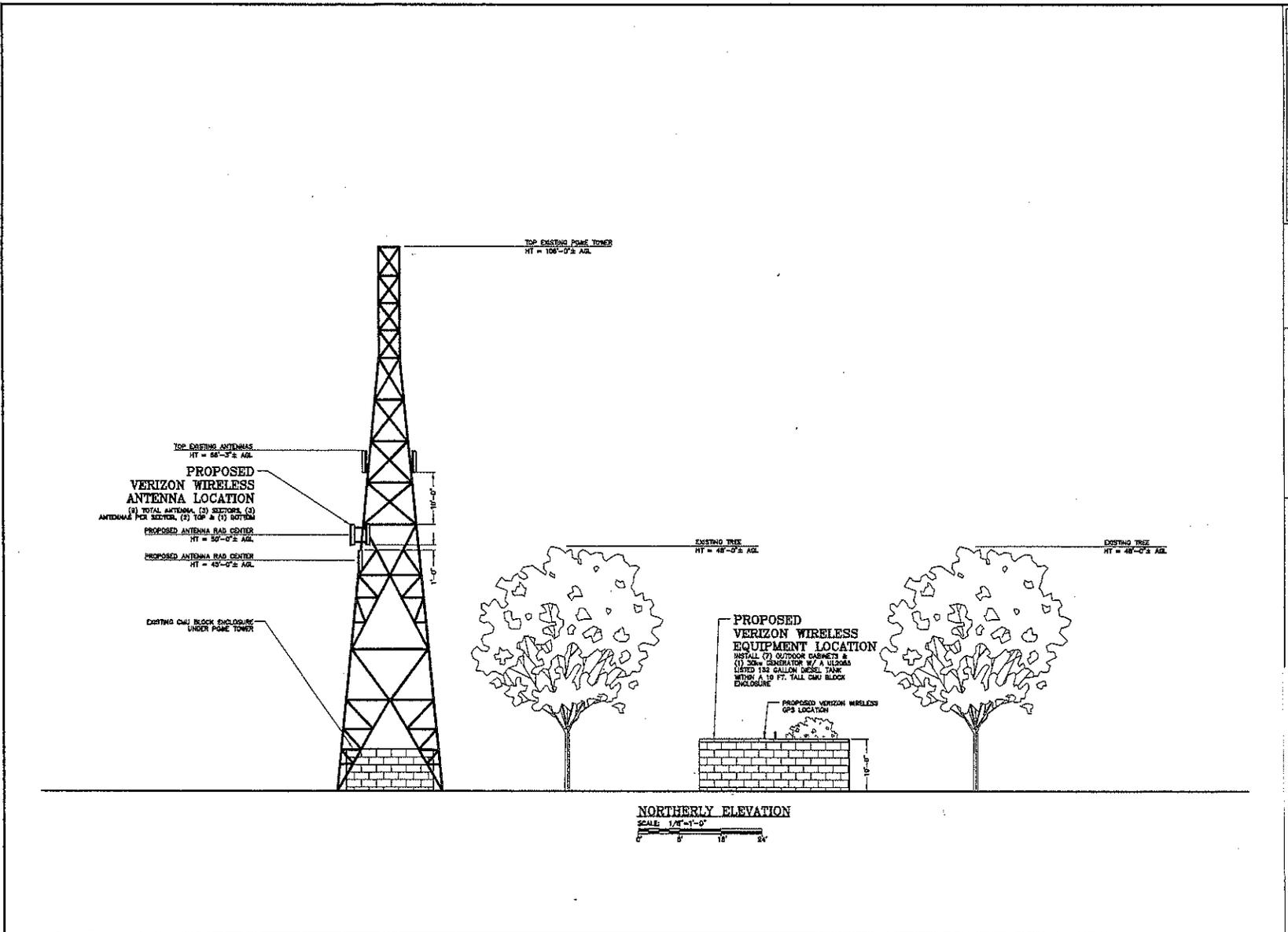
| REVISIONS | |
|-----------|----------|
| NO. | DATE |
| 1 | 10/15/08 |
| 2 | 10/22/08 |
| 3 | 11/05/08 |
| 4 | 11/20/08 |
| 5 | 2/18/09 |
| 7 | 5/26/10 |

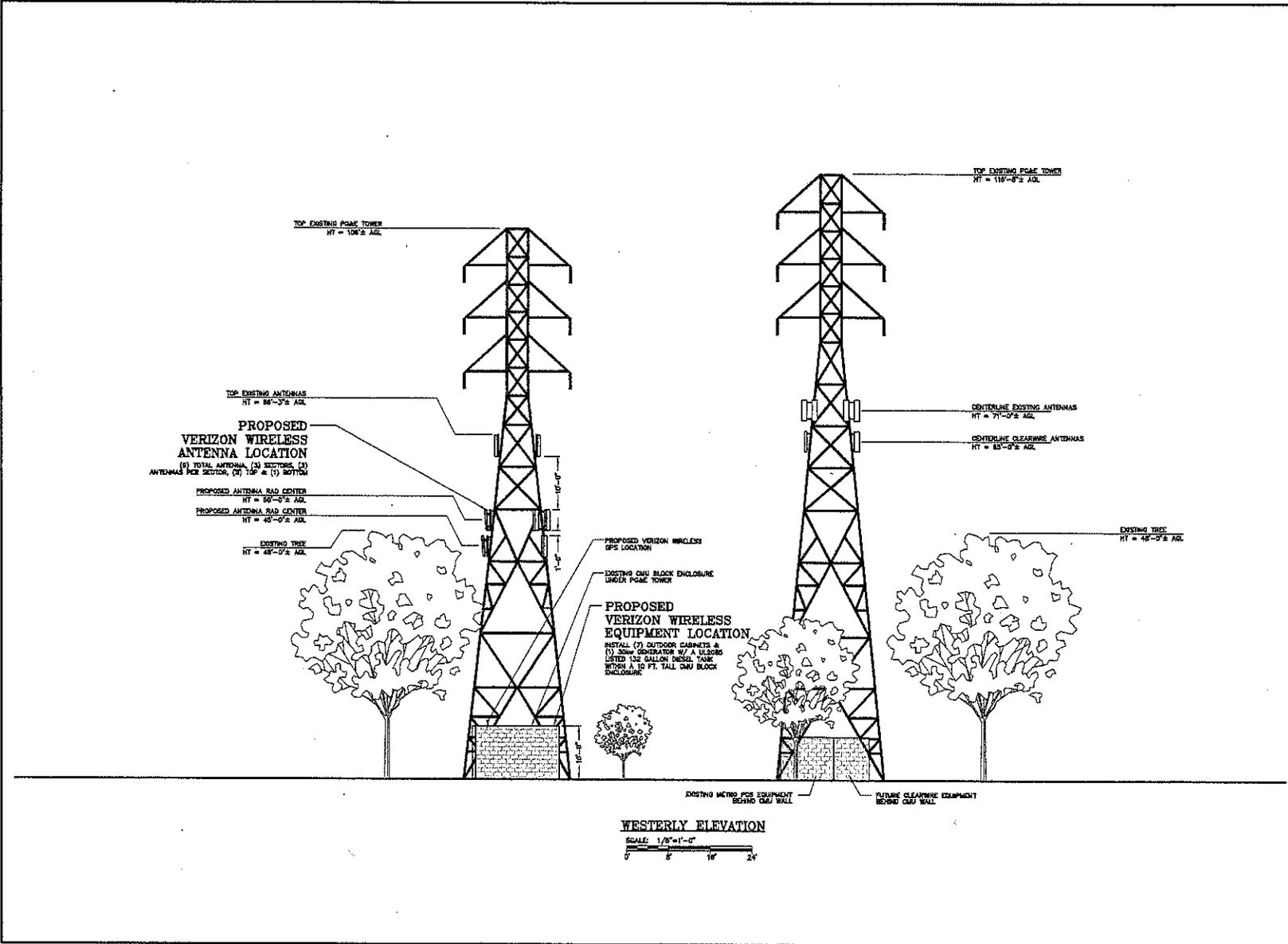
wireless

8



| REVISIONS | |
|-----------|--------------------|
| NO. | DESCRIPTION |
| 1 | ISSUE FOR REVIEW |
| 2 | PER FEEDBACK |
| 3 | MOVE GENERATOR |
| 4 | LOCK 20'S |
| 5 | REMOVE TOWER |
| 6 | AND RE-ARRANGE ED. |
| 7 | |
| 8 | |
| 9 | |
| 10 | |



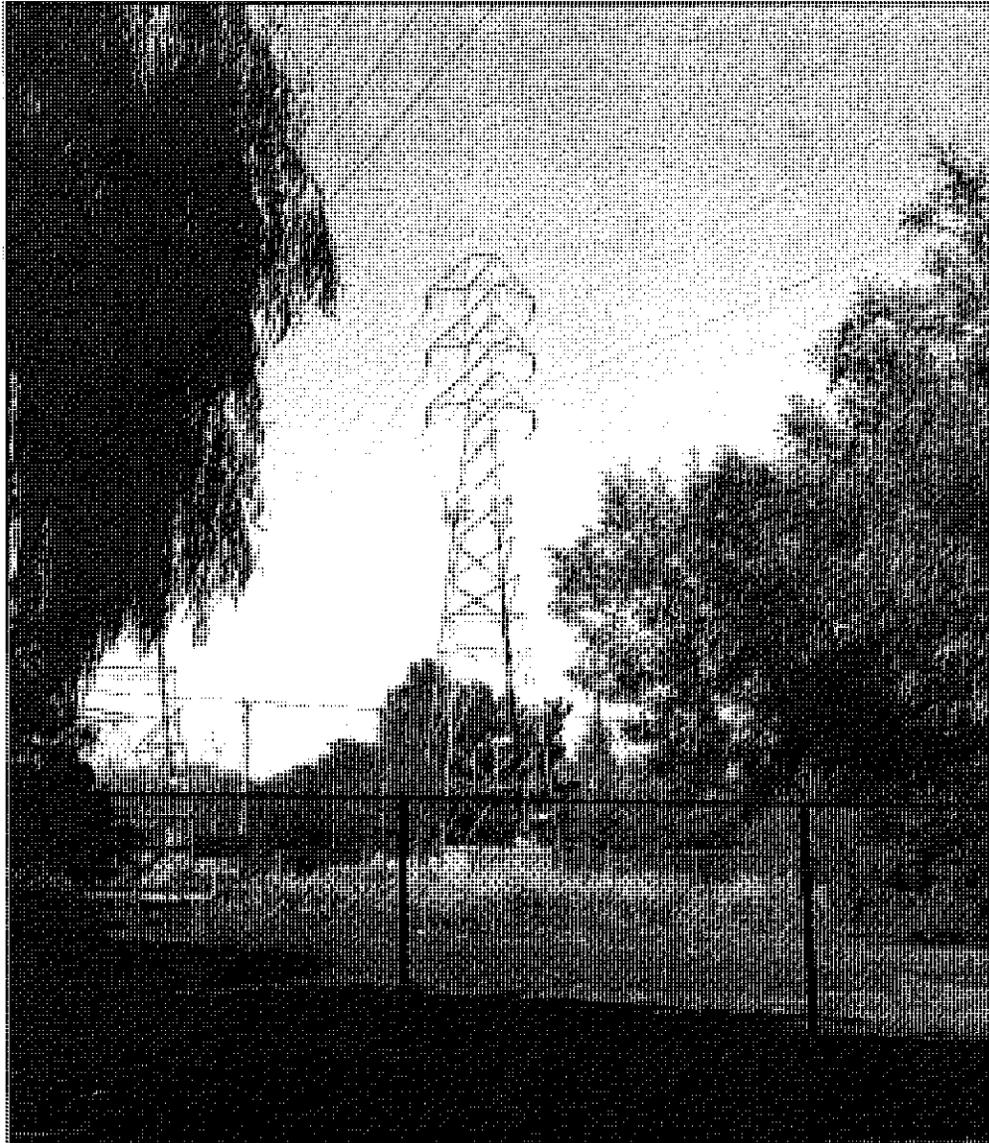


| NO. | DATE | DESCRIPTION |
|-----|----------|-------------------|
| 1 | 10/15/08 | ISSUE FOR REVIEW |
| 2 | 10/22/08 | PER REVISIONS |
| 3 | 11/10/08 | MODIFIED FOR |
| 4 | 11/24/08 | ISSUE FOR |
| 5 | 12/20/08 | ISSUE FOR |
| 6 | 01/07/09 | REVISED TOWERS |
| 7 | 02/02/09 | ADD CLEARWIRE EQ. |

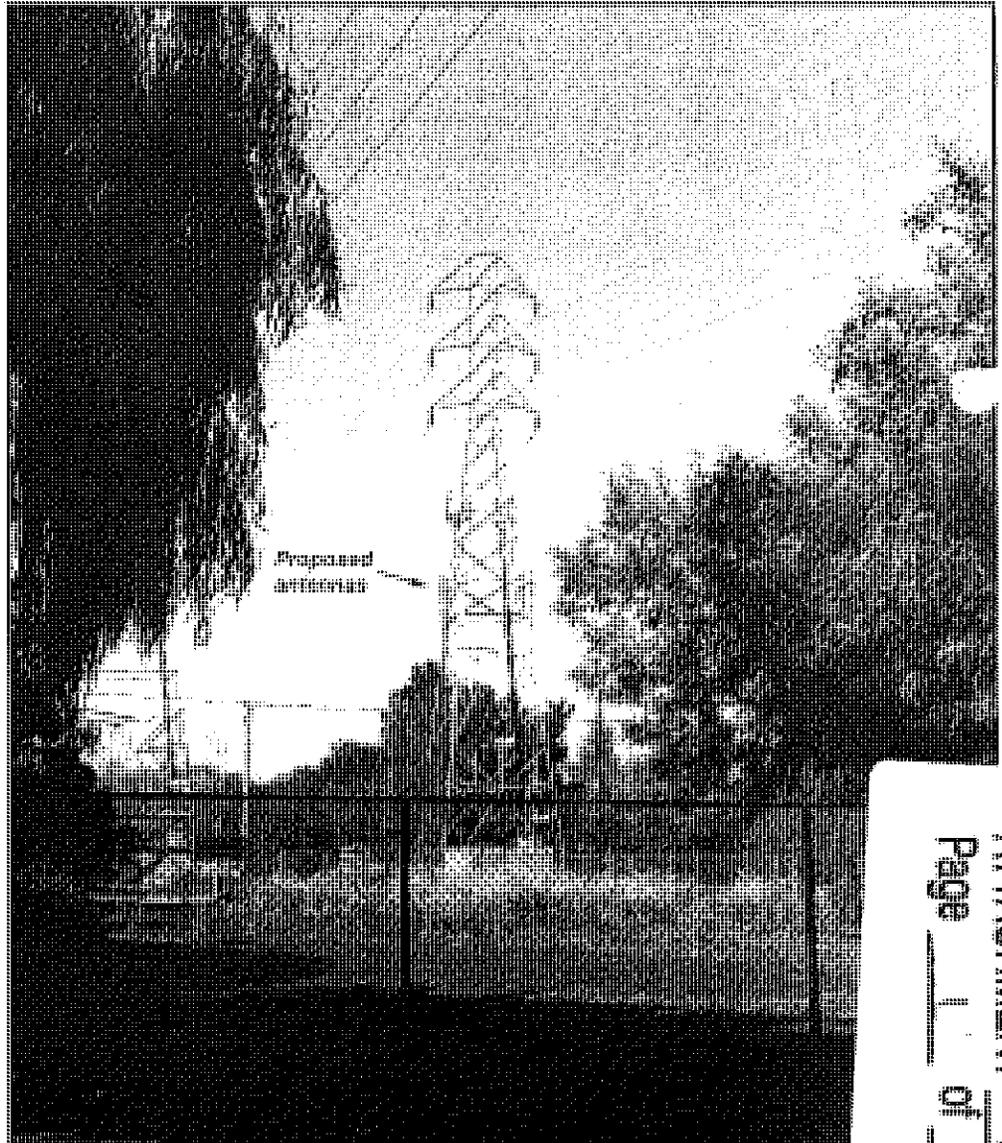
REVISIONS

wireless

Photosimulation of view looking northwest from Ramona Ave.



Existing

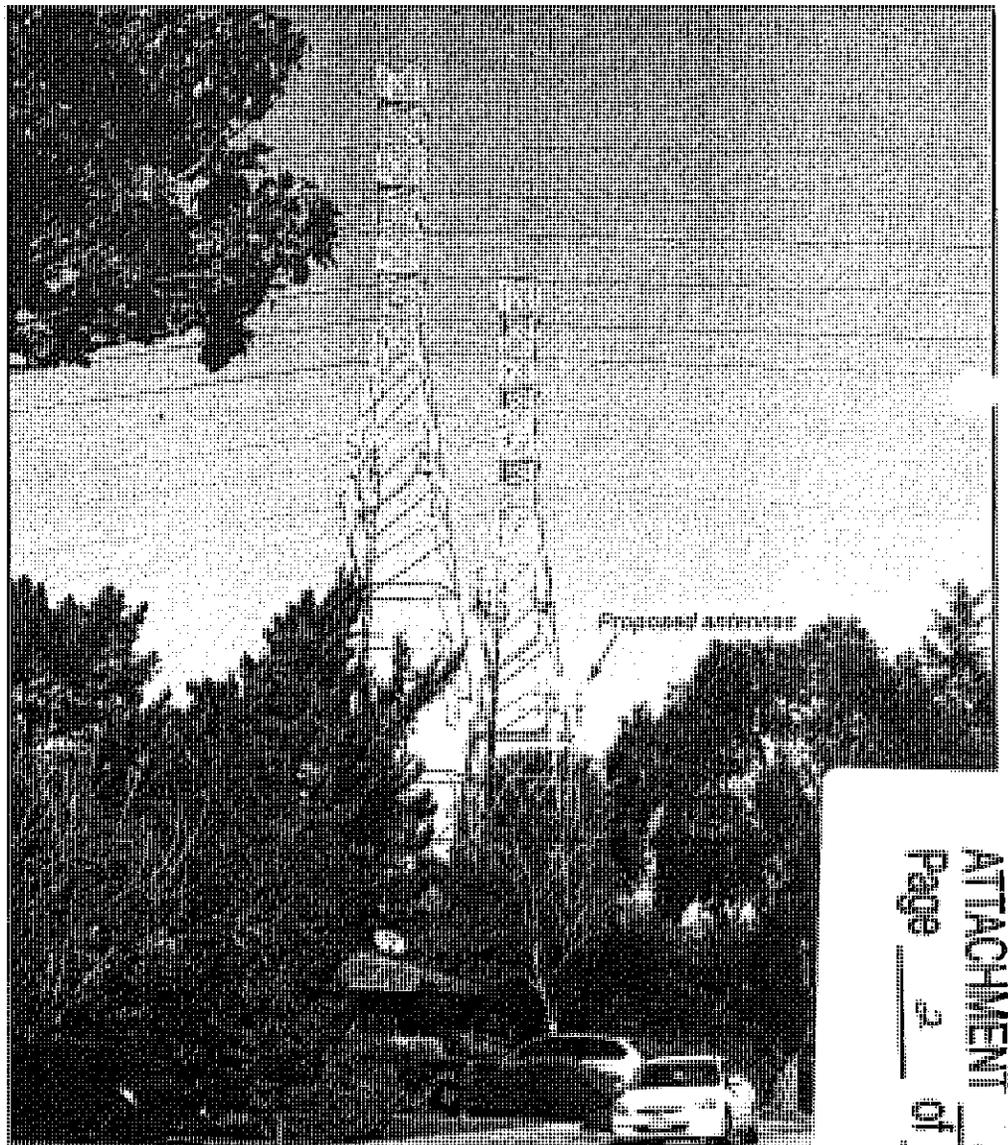
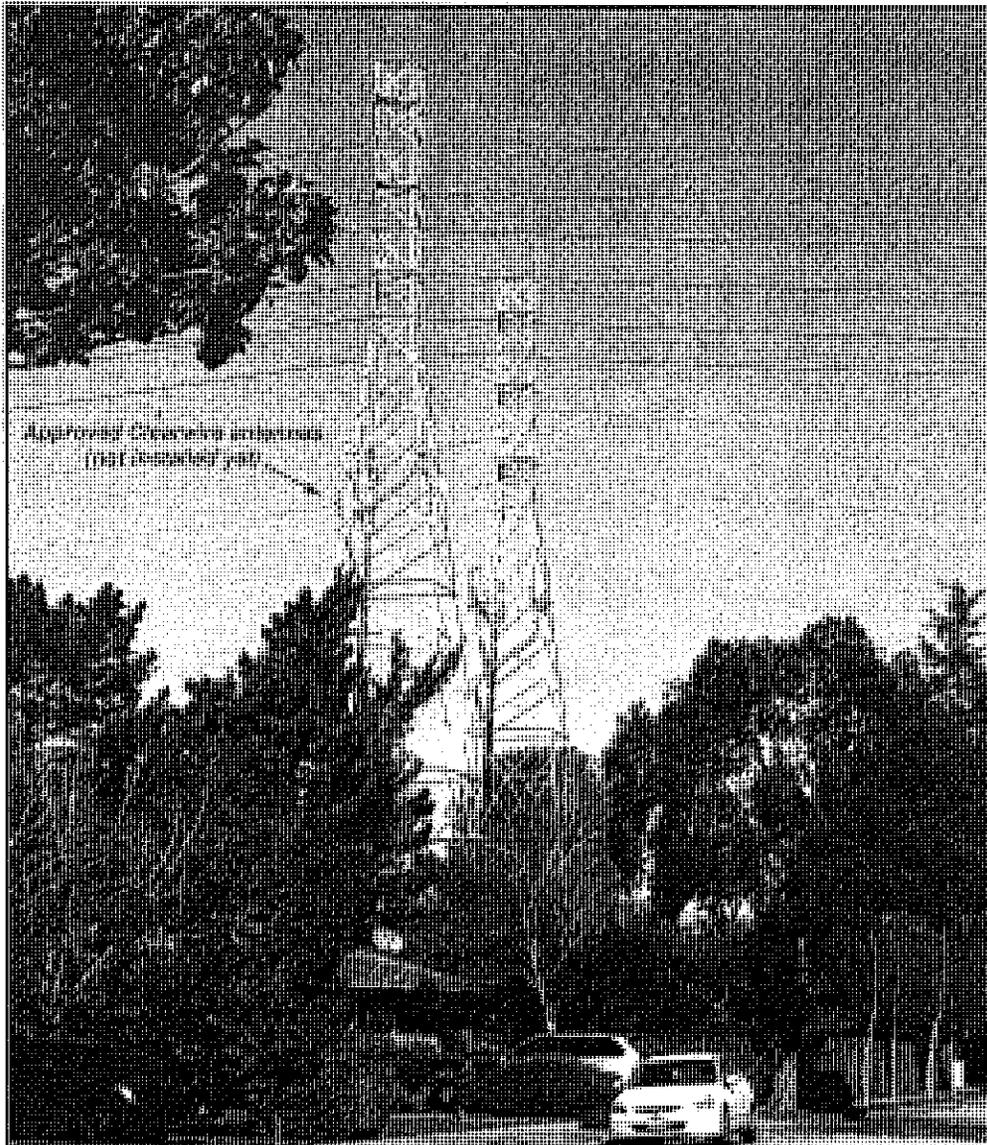


Proposed

W. Sunnyvale
757 Lake Road
Sunnyvale, CA 94087


ATTACHMENT E
Page 1 of 3

Photosimulation of view looking north from Lois Road.



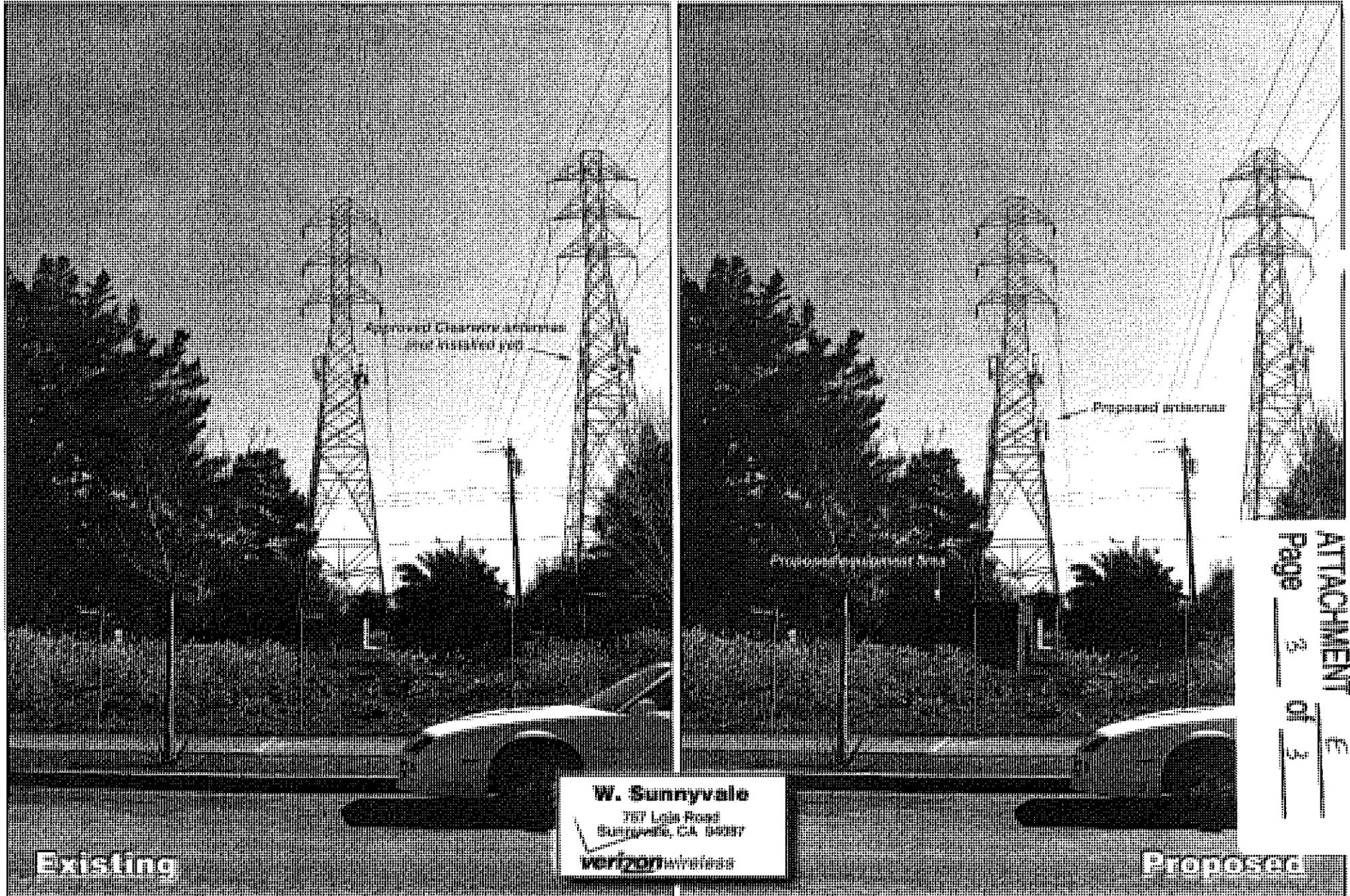
Existing

W. Sunnyvale
 757 Lyle Road
 Sunnyvale, CA 94087

Proposed

ATTACHMENT E
 Page 2 of 3

Photosimulation of view looking east from Dona Ave.



ATTACHMENT E
Page 3 of 3



City of Sunnyvale
Planning Division
456 W. Olive Ave.
Sunnyvale, CA 94087

Re: Response to PRC meeting comments 757 Lois Lane
Verizon Wireless application for Use Permit for Telecommunication Site and Standby
Generator at 757 Lois Road, Sunnyvale, CA 94087

Noren:

In response to PRC meeting please, find the attached information:

- ✓ Letter that went to Neighbors for Community Meeting held 6/3/10
- ✓ 5 sets of full size plans showing no trees removed, Clear Wire antennas
- ✓ Use Permit Justification for Generator
- ✓ Revised Photosims showing Clearwire
- ✓ Noise report from Acoustical Engineer stating site will meet noise ordinance
- ✓ Particulate matter sheet for Generator and letter from BAAQMD about 30Kw gen.
- ✓ Check in the amount of \$1,458.00 to City
- ~~✓ Check in the amount of \$2010.25 for Dept of Fish & Game~~

*Please call me
about this*

GENERATOR PROJECT INFORMATION

Address 757 Lois Lane Sunnyvale. Generator will be located on site to ensure there is no time the site will be off air incase of power outage. A roll up generator takes at least a day to deploy and that would interrupt the communications in the area. The generator has capacity for 110 gallon of diesel fuel.

PROJECT SPECIFIC INFORMATION

Verizon Wireless Project Description

The applicant is proposing to construct an unmanned wireless facility. There will be an emergency backup generator located near the equipment. The equipment will be surrounded by a 10' high CMU fence. The 10' high fence will ensure the site will meet the Noise ordinance at the property line. Please see attached noise study.

Justification for the Generator

The emergency back up generator will keep the site on air incase of an extended power outage. The site will run on battery for a 4 hour power outage. Verizon Wireless wants to be the carrier who continues to operate in case of emergency. Often emergencies are associated with power outages and that is when the need for communication is the greatest. Currently 20 % of homes in the US are wireless only. 50% of all calls to 911 are from mobile devices. Wireless devices have become a vital safety tool for customers who may need their phone to dial and stay connected with 911 in an emergency.

Facts

The Generator will only run in case of an extended power outage, four hours or more. It will be tested once a week, usually on a Tuesday between 10:00-10:20. This will be a 30Kw generator. This type of generator is exempt from an Air Quality permit due to the low Kilowatt rating and low emission.

Safety

This site is designed to meet building codes.

Conclusion

Verizon Wireless carefully designed this project to meet all the needs of the City of Sunnyvale. We look forward to working with you to bring quality, reliable service to the residents of your community.

Should you have any questions regarding this application, please call me at 925-200-6328.

Thank you,

Karen McPherson, Planner
RIDGE COMMUNICAITONS, INC.



USE PERMIT/SPECIAL DEVELOPMENT PERMIT JUSTIFICATIONS

One of the two following findings must be made in order to approve a Use Permit or Special Development Permit application.

The Sunnyvale Municipal code states that at least one of the following two justifications must be met before granting the Use Permit or Special Development Permit. Please provide us information on how your project meets at least one of the following criteria.

1. The proposed use attains the objectives and purposes of the General Plan of the City of Sunnyvale as the project ...

This Project attains the objective of the General Plan of the City of Sunnyvale, Section C1.1.2, to promote and achieve compliance with land use and transportation standards. This project is consistent with the current use of the property, utility corridor, and unmanned telecommunications site. We are adding and additional Telecommunications Carrier to the property by installing additional antennas on an existing PG&E tower. This facility has been designed to meet the established guidelines detailed in the Zoning Ordinance for the City of Sunnyvale section 19.54 Wireless Telecommunication Facilities. This is co-location; the antennas will blend in the existing tower. This site will meet coverage needs while blending in with the existing infrastructure.

OR

2. The proposed use ensures that the general appearance of proposed structures, or the uses to be made of the property to which the application refers, will not impair either the orderly development of, or the existing uses being made of, adjacent properties as ...

If you need assistance in answering either of these justifications, contact the Planning Division staff at the One-Stop Permit Center.

**Verizon Wireless • Proposed Base Station (Site No. 205094 “West Sunnyvale”)
757 Lois Road • Sunnyvale, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 205094 “West Sunnyvale”) proposed to be located at 757 Lois Road in Sunnyvale, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission (“FCC”) evaluate its actions for possible significant impact on the environment. In Docket 93-62, effective October 15, 1997, the FCC adopted the human exposure limits for field strength and power density recommended in Report No. 86, “Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements (“NCRP”). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, “Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” includes similar exposure limits. A summary of the FCC’s exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

| <u>Personal Wireless Service</u> | <u>Approx. Frequency</u> | <u>Occupational Limit</u> | <u>Public Limit</u> |
|------------------------------------|--------------------------|---------------------------|-------------------------|
| Broadband Radio (“BRS”) | 2,600 MHz | 5.00 mW/cm ² | 1.00 mW/cm ² |
| Advanced Wireless (“AWS”) | 2,100 | 5.00 | 1.00 |
| Personal Communication (“PCS”) | 1,950 | 5.00 | 1.00 |
| Cellular Telephone | 870 | 2.90 | 0.58 |
| Specialized Mobile Radio (“SMR”) | 855 | 2.85 | 0.57 |
| Long Term Evolution (“LTE”) | 700 | 2.33 | 0.47 |
| [most restrictive frequency range] | 30–300 | 1.00 | 0.20 |

Power line frequencies (60 Hz) are well below the applicable range of these standards, and there is considered to be no compounding effect from simultaneous exposure to power line and radio frequency fields.

**Verizon Wireless • Proposed Base Station (Site No. 205094 “West Sunnyvale”)
757 Lois Road • Sunnyvale, California**

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called “radios” or “channels”) that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables about 1 inch thick. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, “Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation,” dated August 1997. Figure 2 attached describes the calculation methodologies, reflecting the facts that a directional antenna’s radiation pattern is not fully formed at locations very close by (the “near-field” effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the “inverse square law”). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Verizon, including zoning drawings by Waterfront Engineering, dated December 30, 2009, it is proposed to mount nine Andrew directional panel antennas – three Model HBX-6516DS for PCS, three Model LBX-6513DS-VTM for cellular, and three Model LNX-6513DS-T4M for LTE service – on an existing 116½-foot PG&E power line tower located at 757 Lois Road in Sunnyvale. The antennas would be mounted with up to 4° downtilt at an effective height of at least 57 feet above ground and would be oriented in groups of three (one of each) toward 10°T, 150°T, and 230°T. The maximum effective radiated power in any direction would be 1,720 watts, representing simultaneous operation at 320 watts for PCS, 400 watts for cellular, and 1,000 watts for LTE service.

Proposed to be located on the same tower are antennas for use by Clearwire, and presently located on a nearby tower about 60 feet to the south are similar antennas for use by T-Mobile and MetroPCS.



**Verizon Wireless • Proposed Base Station (Site No. 205094 “West Sunnyvale”)
 757 Lois Road • Sunnyvale, California**

For the limited purposes of this study, the transmitting facilities of those carriers are assumed to be as follows:

| Carrier | Service | Maximum ERP | Antenna Model | Height |
|-----------|---------|-------------|--------------------|--------|
| Clearwire | BRS | 970 watts | Argus LLX310R | 99 ft |
| T-Mobile | PCS | 2,000 | } Andrew TMBX-6516 | 74 |
| | AWS | 1,000 | | |
| MetroPCS | PCS | 1,890 | Kathrein 742-213 | 73 |

Study Results

For a person anywhere at ground, the maximum ambient RF exposure level due to the proposed Verizon operation by itself is calculated to be 0.0037 mW/cm², which is 0.68% of the applicable public limit. The maximum calculated cumulative level at ground, for the simultaneous operation of all four carriers, is 1.4% of the public exposure limit; the maximum calculated cumulative level at the second-floor elevation of any nearby building* is 2.0% of the public exposure limit. It should be noted that these results include several “worst-case” assumptions and therefore are expected to overstate actual power density levels.

No Recommended Mitigation Measures

Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that PG&E already takes adequate precautions to ensure that there is no unauthorized access to its tower. To prevent exposures in excess of the occupational limit by authorized PG&E workers, it is expected that they will adhere to appropriate safety protocols adopted by that company.

Conclusion

Based on the information and analysis above, it is the undersigned’s professional opinion that the base station proposed by Verizon Wireless at 757 Lois Road in Sunnyvale, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations.

* Located at least 60 feet away, based on aerial photographs from Google Maps.



Verizon Wireless • Proposed Base Station (Site No. 205094 "West Sunnyvale")
757 Lois Road • Sunnyvale, California

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2011. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

February 25, 2010



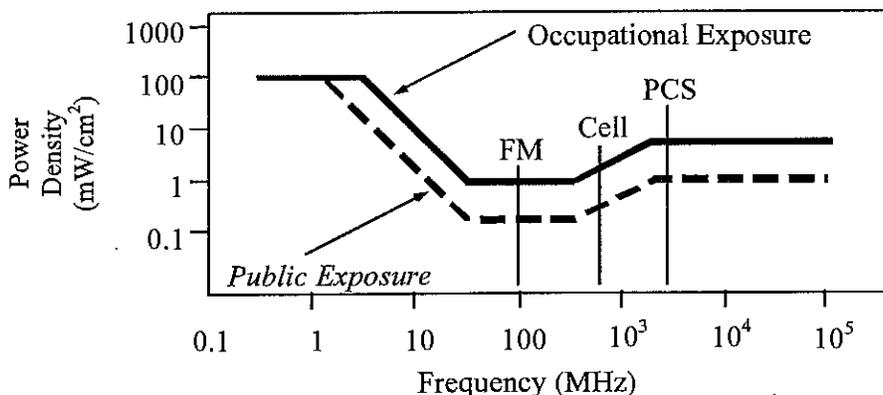
William F. Hammett
William F. Hammett, P.E.

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

| Frequency Applicable Range (MHz) | Electromagnetic Fields (f is frequency of emission in MHz) | | | | | |
|---|--|----------------|-------------------------------------|---------------|--|--------------------------|
| | Electric Field Strength (V/m) | | Magnetic Field Strength (A/m) | | Equivalent Far-Field Power Density (mW/cm ²) | |
| 0.3 – 1.34 | 614 | <i>614</i> | 1.63 | <i>1.63</i> | 100 | <i>100</i> |
| 1.34 – 3.0 | 614 | <i>823.8/f</i> | 1.63 | <i>2.19/f</i> | 100 | <i>180/f²</i> |
| 3.0 – 30 | 1842/f | <i>823.8/f</i> | 4.89/f | <i>2.19/f</i> | 900/f ² | <i>180/f²</i> |
| 30 – 300 | 61.4 | <i>27.5</i> | 0.163 | <i>0.0729</i> | 1.0 | <i>0.2</i> |
| 300 – 1,500 | 3.54√f | <i>1.59√f</i> | √f/106 | <i>√f/238</i> | f/300 | <i>f/1500</i> |
| 1,500 – 100,000 | 137 | <i>61.4</i> | 0.364 | <i>0.163</i> | 5.0 | <i>1.0</i> |



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.



RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm²,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm²,

- where θ_{BW} = half-power beamwidth of the antenna, in degrees, and
- P_{net} = net power input to the antenna, in watts,
- D = distance from antenna, in meters,
- h = aperture height of the antenna, in meters, and
- η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

$$\text{power density } S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}, \text{ in mW/cm}^2,$$

- where ERP = total ERP (all polarizations), in kilowatts,
- RFF = relative field factor at the direction to the actual point of calculation, and
- D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF TRANSPORTATION AND AIR QUALITY
WASHINGTON, DC 20460



CERTIFICATE OF CONFORMITY
2009 MODEL YEAR

Manufacturer: **JOHN DEERE POWER SYSTEMS**
Engine Family: **9JDXL02.4074**
Certificate Number: **JDX-NRCI-09-04**
Intended Service Class: **NR 3 (19-37)**
Fuel Type: **DIESEL (LOW OR ULTRA-LOW SULFUR)**
FELs: g/kW-hr NMHC+NOx: N/A NOx: N/A PM: N/A
Effective Date: **11/21/2008**
Date Issued: **11/21/2008**

Karl J. Simon, Director
Compliance and Innovative Strategies Division
Office of Transportation and Air Quality

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR Part 1039, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following nonroad engines, by engine family, more fully described in the documentation required by 40 CFR 1039 and produced in the stated model year.

This certificate of conformity covers only those nonroad compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 1039 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 1039.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR Part 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to a revocation or suspension of this certificate for reasons specified in 40 CFR Part 1039. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 1039.

This certificate does not cover nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

| | | |
|--|--------------------------|--|
|  California Environmental Protection Agency AIR RESOURCES BOARD | John Deere Power Systems | EXECUTIVE ORDER U-R-004-0351 New Off-Road Compression-Ignition Engines |
| | | |

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

| MODEL YEAR | ENGINE FAMILY | DISPLACEMENT (liters) | FUEL TYPE | USEFUL LIFE (hours) |
|---|---------------|-----------------------|---|---------------------|
| 2009 | 9JDXL02.4074 | 2.4 | Diesel | 5000 |
| SPECIAL FEATURES & EMISSION CONTROL SYSTEMS | | | TYPICAL EQUIPMENT APPLICATION | |
| Direct Diesel Injection, Turbocharger, Smoke Puff Limiter | | | Pump, Compressor, Generator Set, Other Industrial Equipment | |

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

| RATED POWER CLASS | EMISSION STANDARD CATEGORY | | EXHAUST (g/kw-hr) | | | | | OPACITY (%) | | |
|-------------------|----------------------------|------|-------------------|-----|----------|-----|------|-------------|-----|------|
| | | | HC | NOx | NMHC+NOx | CO | PM | ACCEL | LUG | PEAK |
| 19 ≤ kW < 37 | Tier 4 interim | STD | N/A | N/A | 7.5 | 5.5 | 0.30 | 20 | 15 | 50 |
| | | CERT | -- | -- | 6.6 | 2.7 | 0.30 | 1 | 2 | 2 |

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 12th day of December 2008.


 Annette Hebert, Chief
 Mobile Source Operations Division

Verizon Wireless
Wireless
Verizon Wireless
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27 April 2010

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Subject: Verizon West Sunnyvale Site – Standby Generator Noise Mitigation

Dear Karen:

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This letter forwards our report on the standby generator noise levels and property-line noise mitigation at the Verizon Communications West Sunnyvale site. This wireless communication project is located on an existing wireless communication facility site at 757 Lois Road in the City of Sunnyvale.

SUMMARY

Without any noise mitigation measures, the generator noise at the nearest property-line is calculated to exceed the City Noise Ordinance limit of 50 dBA by 11 decibels. With the currently shown 8-foot high enclosure wall (with acoustically absorptive material applied to the inside surfaces), the calculated noise level at the nearest property-line will still exceed the ordinance limit by one decibel.

Raising the enclosure wall height to ten feet is calculated to reduce the property-line noise level to the ordinance limit of 50 dBA. Alternately, the 8-foot high enclosure wall can be maintained and a slightly more quiet generator/enclosure package can be selected.

NOISE CRITERION

The City of Sunnyvale Noise Ordinance limits the generator noise to 50 dBA during nighttime hours (10:00 pm to 7:00 am) at the nearest residential property-line. The noise ordinance allows 60 dBA at the nearest residential property-line, during daytime hours (7:00 am to 10:00 pm).

The Noise Ordinance allows for 60 dBA at the nearest property-line during daytime hours, however the ordinance does not appear to any distinction between maintenance operations (which could be done during daytime hours) and actual backup operation. The nighttime limit of 50 dBA should then be considered the governing criterion.

Verizon West Sunnyvale
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STANDBY GENERATOR NOISE

The standby generator manufacturer has provide technical information stating that the proposed Generac SD030 2.4L kW diesel generator with a Level 2A "Sound Attenuated Enclosure" enclosure, produces 68 dBA at a distance of 23 feet, that will result in a noise level of 61 dBA at the nearest property-line (at a distance of about 51 feet). The currently proposed 8-foot high enclosure wall will reduce the noise at the property-line to a calculated 51 dBA. Raising the enclosure wall height to 10 feet is calculated to provide an additional decibel of noise reduction, to 50 dBA meeting the ordinance nighttime limit.

MITIGATION MEASURES

At either enclosure wall height, the inner surface of the wall should be covered with acoustically absorptive panels such as Kinetics Noise Control Model KNP panels or Noise Barriers NB-II QuietPerf panels (manufacturers' information attached). This absorptive finish is necessary to get the full barrier effect out of the enclosure wall.

The enclosure wall height should be increase to 10-feet. Alternately, a generator/enclosure package with slightly lower noise levels could be provided.

There was a question as to whether porous expanded polypropylene (PEPP) panels can be used for absorptive material on the enclosure walls. In the vendors "Installation and Cleaning Instructions Outdoor Version" they state "*Sound Silencer is Not UV Stable and Will Degrade in Direct Sunlight*". Therefore, we recommend against using this material in this application.

We hope this information proves useful. Should you have any questions or comments, please call.

Best regards,

Charles M. Salter Associates, Inc.



Thomas A. Schindler P.E.
Vice President

