



Staff Report to the Zoning Administrator

Application Number: **04-0073**

Applicant: Chnstian Svensk (Parsons Co.),
for Nextel Communications

Agenda Date: January 6, 2006

Owner: Fred Jensen, trustee
APN: 080-021-27

Agenda Item #: **5**
Time: After 10:00 a.m.

Project Description: Proposal to co-locate a wireless communication facility by mounting 12 panel antennas onto an existing monopole, installing an equipment shelter, and relocating an existing generator.

Location: Property located on the east side of Empire Grade (12500 Empire Grade) approximately 1.4 miles north of the intersection with Alba Road.

Supervisory District: Third District (District Supervisor: Mardi Wormhoudt)

Permits Required: Amendment to Commercial Development Permits 93-0239 and 02-0522

Staff Recommendation:

- Approval of Application 04-0073, based on the attached findings and conditions.
- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

Exhibits

- | | | | |
|----|---|----|--|
| A. | Project plans | H. | Radio Frequency Analysis |
| B. | Findings | I. | Project Synopsis (from applicant) |
| C. | Conditions | J. | Permit 93-0239 with Findings and
Conditions of Approval |
| D. | Categorical Exemption (CEQA
determination) | K. | Permit 02-0522 with Conditions of
Approval |
| E. | Assessor's parcel map | | |
| F. | Zoning & General Plan maps | | |
| G. | Photo simulations | | |

Parcel Information

Parcel Size: 46 acres
Existing Land Use - Parcel: Chnstmas tree farm, timber, and monopole cell site
Existing Land Use - Surrounding: Christmas tree farm, timber, residential
Project Access: Empire Grade Road
Planning Area: Bonny Doon
Land Use Designation: R-M (Mountain Residential)
Zone District: TP (Timber Production)
Coastal Zone: Inside Outside
Appealable to Calif. Coastal Comm. Yes No

Environmental Information

Geologic Hazards: No hazards mapped or sighted
Soils: Soils Report done for original monopole
Fire Hazard: Not a mapped constraint
Slopes: Existing flat graded pad; steep slopes nearby
Env. Sen. Habitat: No physical evidence on site
Grading: No grading proposed
Tree Removal: No trees proposed to be removed
Scenic: Empire Grade scenic road
Drainage: Existing drainage to receive minor upgrading
Archeology: Negative archeological site review

Services Information

Urban/Rural Services Line: Inside Outside
Water Supply: Private well
Sewage Disposal: N/A
Fire District: Bonny Doon/County Fire
Drainage District: None

History

The original telecommunications facility permit for the site was approved on March 1, 1994 as Commercial Development Permit 93-0239 (Exhibit J). The original approval was for an 80-foot tall monopole with antennas, equipment building, emergency generator and perimeter fencing. Staff Reports and supporting documents for 93-0239, including an Environmental Review Initial Study, are on file and available for viewing at the Santa Cruz County Planning Department.

In 2004, Commercial Development Permit 02-0522 was approved for a second wireless carrier (AT&T Wireless, since acquired by Cingular), co-locating six panel antennas on the existing monopole and installing an equipment cabinet.

Analysis and Discussion

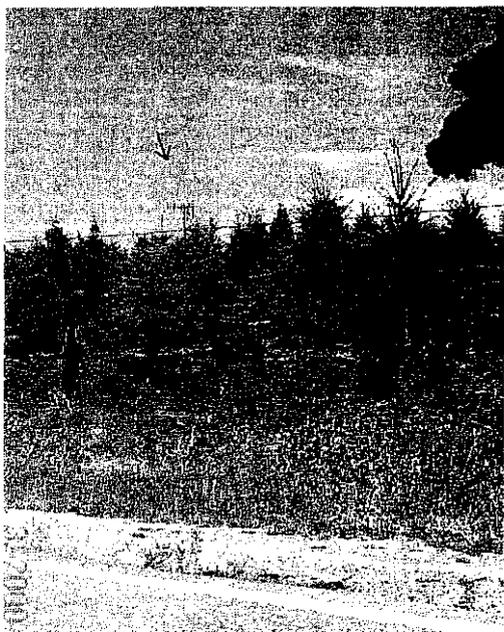
The proposed wireless facility co-location is a minor change to an approved project. The proposed 12 new antennas will be mounted as a third tier of antennas on the existing monopole at about 55 feet above ground level, approximately 13 feet below a second tier of co-located antennas. There will also be a new 11.5 foot by 20 foot walk-in equipment shelter, located in the south end of the existing 29 foot by 59 foot fenced compound at the base of the monopole. Placement of the equipment shelter will require relocation of the existing emergency generator approved under the original permit 93-0239.

The existing wireless facility is owned and operated by Crown Castle International of Pleasanton, California, in a joint venture with GTE Mobilnet. AT&T Wireless (recently acquired by Cingular) is in the final construction stage of building permit #139723 for co-locating antennas on the monopole.

Nextel Communications, an FCC licensed wireless communication company, seeks the additional antennas to provide improved service coverage for Ben Lomond, Felton, Scotts Valley and surrounding areas. Shared use of the monopole facility will be sublet to Nextel.

Lease income to the property owner from the wireless facility in effect adds to the economic viability of maintaining the property in its primary use as the well-mown Crest Ranch Christmas Tree Farm,

The proposed co-location of a new wireless communication facility on the existing monopole is consistent with the Wireless Ordinance's strong encouragement of co-located facilities.



Example view of existing monopole and antennas as of July 2003, seen from Empire Grade Road near the entrance to the Crest Ranch Christmas Tree Farm. This photo was taken before the second tier of antennas was constructed, so only the top tier of antennas is in the photo.

Visual analysis. As shown in the above photo (existing condition, July 2003), the photo simulations (Exhibit G), and project plans (Exhibit A), the new antennas will result in additional protruding equipment installed on an existing monopole. (The photo simulations were prepared

and submitted before AT&T Wireless installed antennas midway between the existing top tier of antennas and the proposed Nextel tier of antennas.) The additional Nextel antennas will be painted a green color to match the existing monopole, and will only minimally alter the existing overall visual impact of the monopole.

The upper section of the existing monopole is intermittently visible, at distances of 800 feet or more, from portions of Empire Grade Road only while passing by the Christmas tree farm on which the monopole is located. In this rural setting there are mature native trees, smaller Christmas tree plantings, other screening vegetation, a topographical rise between Empire Grade and the monopole site, and an elevated road embankment along a portion of Empire Grade, all of which serve to reduce the visibility of the monopole from Empire Grade Road. The visual impact of the added antennas in this particular circumstance is slight, and the casual observer would quite easily not be aware of any change. The potential visual impact of locating a new, separate monopole facility nearby would be greater.

The permit conditions of the original monopole permit required certain additional screening tree plantings to be made in order to further reduce the visibility of the facility. Two well-established redwood plantings are now thriving just south of the fenced facility area. Other plantings did not survive the initial period of planting establishment. Since that time there were no records of complaints to the County Planning Department about unreplaced plantings. County Planning staff noted the absent plantings in 2003 during a followup site inspection for application 02-0522 (AT&T Wireless), and replacement plantings have since been made.

Federal requirements. The proposed co-location to the existing monopole complies with Federal Communications Commission regulations including construction requirements, technical standards, interference protection and radio frequency standards (Exhibit H).

Conclusion

As proposed and conditioned, the project is consistent, as a conditional use, with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit B (Findings) for a complete listing of findings and evidence. This project conforms to the County of Santa Cruz Wireless Communication Facilities ordinance (Ordinance No. 4769), which was adopted in 2004 after the previous wireless communication facilities on the project site were approved.

All permit conditions of the preceding project approvals for Commercial Development Permits 93-0239 and 02-0522 remain in effect.

Staff Recommendation

- APPROVAL of Application Number 04-0073, based on the attached findings and conditions.
- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa **Cruz** County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

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Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made. The project is sited on a 46 acre parcel at an existing monopole location. The visual impact of the co-location of facilities will be very slight, and much less than would potentially follow from a separate new facility nearby. The facility will comply with Federal Communications Commission safety criteria. A Radio Frequency Analysis was completed for the project which found that the project will comply with the prevailing standards for limiting public exposure to radio frequency energy (Exhibit H). The transmitting energy will not interfere with TV or AM/FM transmissions in the vicinity.

Construction will comply with prevailing building technology, the Uniform Building Code, and the County Building ordinance to ensure safety and the conservation of energy and resources.

The proposed co-located wireless communication facility will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the structure meets all current setbacks that ensure access to light, air, and open space in the neighborhood.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

The project is located on a parcel in the TP (Timber Production) zone district. Communications facilities are a conditionally permitted use in the TP zone district. Lease income from the wireless facility to the property owner effectively adds to the economic viability of continuing the property as a Christmas tree farm and for timber production. The project is also consistent with the requirements of the County's Wireless Communication Facilities ordinance, including the ordinance's strong encouragement for co-location of wireless facilities.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

The property is designated Mountain Residential in the County General Plan. Findings for consistency with the General Plan were approved under Application 93-0239 (see Exhibit J) for the original facility at which this project proposes to co-locate. The proposed project maintains that General Plan consistency.

A specific plan has not been adopted for this portion of the County.

- 4, That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed AT&T facility requires only electrical and telephone services, which are already available at the site. The expected level of traffic generated by the proposed project is anticipated to be only or two visits per month by maintenance personnel. Such an increase will not adversely impact existing roads and intersections in the surrounding area.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, because as a co-location the proposed wireless facility complements and harmonizes with the existing monopole wireless facility and the facility as a whole remains compatible with the surrounding Christmas tree farm. The visual impact of the added antennas in this particular setting is slight, and the casual observer would quite easily not be aware of any change. The potential visual impact of locating a new, separate monopole facility nearby would be much greater.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed addition to the existing wireless communications facility will be of a physical shape and color that blends in with the existing facility.

Wireless Communication Facility, Use Permit Findings

1. The development of the proposed wireless communications facility as conditioned will not significantly affect any designated visual resources, environmentally sensitive habitat resources (as defined in the Santa Cruz County General Plan/LCP Sections 5.1, 5.10, and 8.6.6.), and/or other significant County resources, including agricultural, open space, and community character resources; **or** there are no other environmentally equivalent and/or superior and technically feasible alternatives to the proposed wireless communications facility as conditioned (including alternative locations and/or designs) with less visual and/or other resource impacts and the proposed facility has been modified by condition and/or project design to minimize and mitigate its visual and other resource impacts.

This finding can be made, in that the proposed wireless facility co-location is a minor change to an approved project. The visual impact of the added antennas in this particular setting is slight. The potential visual impact of locating a new, separate monopole facility nearby would be much greater.

2. The site is adequate for the development of the proposed wireless communications facility and, for sites located in one of the prohibited and/or restricted areas set forth in Sections 13.10.661(b) and 13.10.661 (c). that the applicant has demonstrated that there are not environmentally equivalent or superior and technically feasible: (1) alternative sites outside the prohibited and restricted areas; and/or (2) alternative designs for the proposed facility as conditioned.

This finding can be made, because this is a proposal for co-location with an approved wireless communications facility, and no concerns about the adequacy of the site for the co-location have been identified. The site is not in a prohibited or restricted area.

3. The subject property upon which the wireless communications facility is to be built is in compliance with all rules and regulations pertaining to zoning uses, subdivisions and any other applicable provisions of this title (County Code 13.10.660) and that all zoning violation abatement costs, if any, have been paid.

No zoning violation abatement costs are applicable to the project site. The subject property is in compliance with existing zoning regulations and with the County wireless communications facilities ordinance.

4. The proposed wireless communication facility as conditioned will not create a hazard for aircraft in flight.

The proposed additional antennas will be lower on an existing monopole than the existing antennas. The new antennas are not in an anticipated flight area and do not create a hazard for aircraft in flight.

5. The proposed wireless communication facility as conditioned is in compliance with all FCC and California PUC standards and requirements.

This finding can be made, in that the maximum ambient RF levels due to the proposed facility, including the cumulative of all three onsite facilities operating simultaneously, are calculated to be 1.1 percent of the public exposure limit. The proposed facility, operated by Nextel Communications and co-located on an existing facility operated by Crown Castle International, is required to comply with all FCC and **PUC** licensing and operating requirements.

6. For wireless communication facilities in the coastal zone, the proposed wireless communication facility as conditioned is consistent with all applicable requirements of the Local Coastal Program.

The project is not located in the coastal zone.

Conditions of Approval

Exhibit A: Project plans by Advanced Design Consultants, revised dated July 30, 2005

- I. This permit authorizes the construction and operation of a co-located wireless communication facility as shown in Exhibit A. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
 - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
 - B. Obtain a Building Permit from the Santa Cruz County Building Official
 - C. Obtain and maintain all required licenses and approvals from the California Public Utilities Commission and the Federal Communications Commission.

- II. Prior to issuance of a Building Permit the applicant/owner shall:
 - A. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder).
 - B. Submit final construction plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. Any changes from the approved Exhibit "A" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:
 1. Identify finish and color of all features including antennas and equipment shelter (to be a green that matches the existing facility). The antennas shall have a non-reflective finish.
 2. Drainage and Erosion Control Plan. The plan shall show how the drainage function of existing rock-lined surface drainage channel inside the southeast portion of the facility compound will be maintained with no reduction in drainage capacity, no conflict with the foundation of the new equipment shelter, and no increase in erosion hazard. The drainage function shall continue capable of carrying surface drainage flow through the facility, observant that the adjacent service road on the west side of the facility is delivering some surface drainage through the facility. Detailed drainage materials and construction, and the adjacent interface with the

equipment shelter foundation, shall be depicted and specified. The function of the existing rock-lined swale exiting south of the facility shall be shown maintained.

3. Details showing compliance with fire department requirements,
- C. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached. The Conditions of Approval shall be recorded prior to submittal, if applicable.
- D. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services, if any hazardous materials, such as batteries, are utilized or generated on site.
- E. Meet all requirements and pay any applicable plan check fee of the Fire Protection District.

III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:

- A. All site improvements shown on the final approved Building Permit plans shall be installed.
- B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.
- C. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.

IV. Operational Conditions

- A. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.
- B. Operation of the facility shall be in conformance with the County's Wireless

Communication Facilities Ordinance, and any other regulatory authority.

- C. Transfer of Ownership. In the event that the original permittee (or original permit applicant) sells or has sold its interest in a wireless communication facility, the succeeding owner shall assume all responsibility concerning the project and shall be held responsible to the County for maintaining consistency with all project conditions of approval. A new contact name, if changed, for the project shall be provided by the succeeding owner to the Planning Department within 30 days of transfer of interest in the facility.
- D. The exterior finish and materials of the wireless communication facility must be maintained when needed to continue to blend with the existing utilities infrastructure. Additional paint and/or replacement materials shall be installed as necessary to blend the subject wireless communication facility with the existing monopole and infrastructure.
- E. The operator of the wireless communication facility must submit within 90 days of commencement of normal operations (or within 90 days of any major modification of power output of the facility) a written report to the Santa Cruz County Planning Department documenting the measurements and findings with respect to compliance with the established Federal Communications Commission (FCC) Non-Ionizing Electromagnetic Radiation (NEIR) exposure standard. The wireless communication facility must remain in continued compliance with the NEIR standard established by the FCC at all times. Failure to submit required reports or to remain in continued compliance with the NEIR standard established by the FCC will be a violation of the terms of this permit.
- F. The use of temporary generators to power the wireless communication facility at any time is prohibited. Any generator associated with construction and installation shall not be left running while personnel are not present and shall not be left onsite overnight.
- G. All noise shall be contained on the property. A maximum exterior noise level at the property line is 60 LDN.
- H. All associated site, building, and security lighting shall be directed onto the lease site and away from the scenic corridor and adjacent properties. Light sources shall not be visible from adjacent properties. Light sources shall be shielded by landscaping, structures, fixture design, or other physical means. Building and security lighting shall be integrated into building design.
- I. If, as a result of future scientific studies and alterations of industry-wide standards resulting from those studies, substantial evidence is presented to Santa Cruz County that radio frequency transmissions may pose a hazard to human health and/or safety, and existing Federal standards are modified, the Santa Cruz County

Planning Department shall set a public hearing and in its sole discretion, may revoke or modify the conditions of this permit.

- J. If future technological advances would allow for reduced visual impacts resulting from the proposed telecommunication facility, the operator of the wireless communication facility must make those modifications which would allow for reduced visual impact of the proposed facility as part of the normal replacement schedule. If, in the future, the facility is no longer needed, the operator of the wireless communication facility must abandon the facility and be responsible for the removal of all permanent structures and the restoration of the site as needed to re-establish the area consistent with the character of the surrounding natural landscape.
- K. Any modification in the type of equipment shall be reviewed and acted on by the Planning Department staff. The County may deny or modify the conditions at this time, or the Planning Director may refer it for public hearing before the Zoning Administrator.
- L. A Planning Department review that includes a public hearing shall be required for any future co-location at this wireless communications facility.
- V. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
 - A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
 - B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
 - 1. COUNTY bears its own attorney's fees and costs; and
 - 2. COUNTY defends the action in good faith.

- C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

Please note: This permit expires two years from the effective date unless you obtain the required permits and commence construction.

Approval Date: _____
Effective Date: _____
Expiration Date: _____

Don Bussey
Deputy Zoning Administrator

Jack Nelson
Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

CALIFORNIA ENVIRONMENTAL QUALITY ACT NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 04-0073
Assessor Parcel Number: 080-021-27
Project Location: 12500 Empire Grade

Project Description: Co-located wireless communication facility

Person or Agency Proposing Project: Christian Svensk (Parsons Co.), for Nextel Communications

Contact Phone Number: (415) 495-4082

- A. The proposed activity is not a project under CEQA Guidelines Section 15378.
B. The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).
C. **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.
D. **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type:

- E. **Categorical Exemption**

Specify type: Class 3 -New Construction or Conversion of Small Structures (Section 15303)

F. Reasons why the project is exempt:

Minor addition of co-located small structures to an existing wireless telecommunications facility.

In addition, none of the conditions described in Section 15300.2 apply to this project.

Jack Nelson, Project Planner

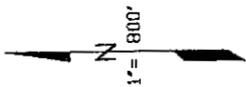
Date: _____

80-02

Tax Area Code
58-000 58-001

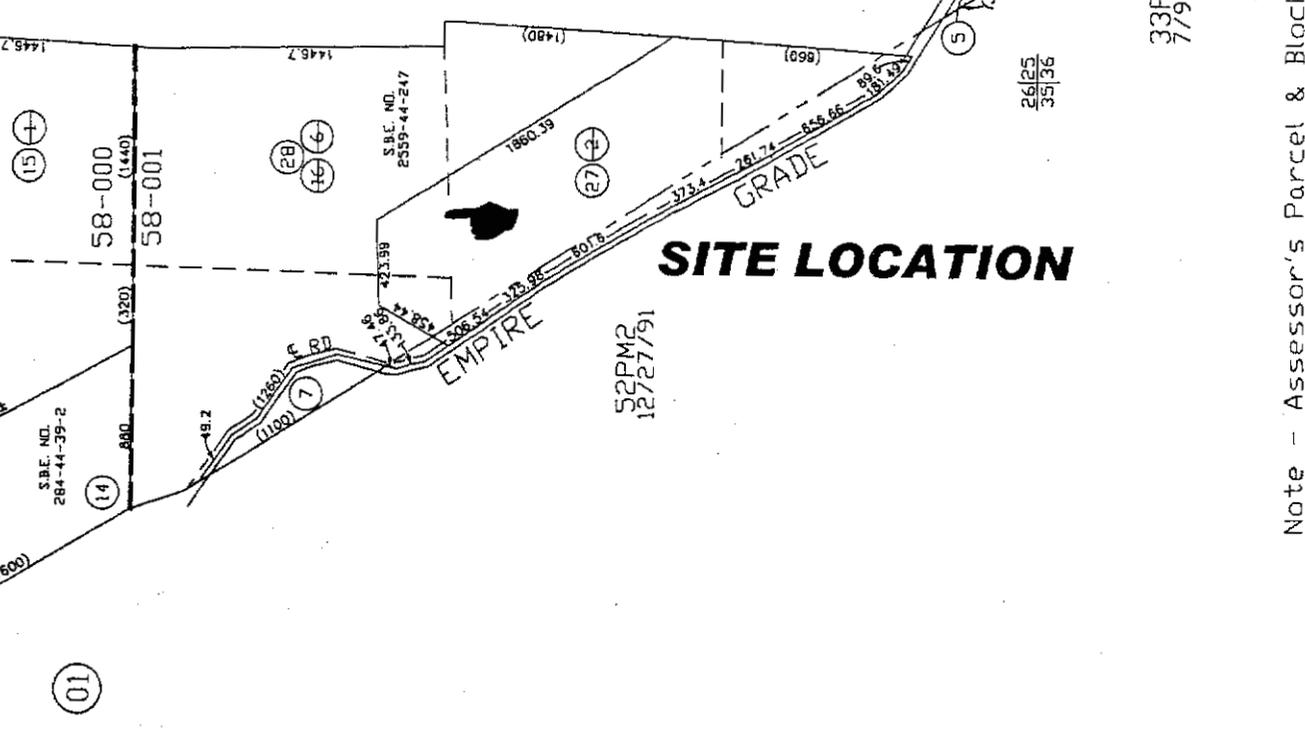
SEC. 25, 26, & 36, T.9S., R.3W., M.D.B. & M.

SEC. 23
SEC. 26
ACCURACY NBR ASSUMED
S.D. ALL RIGHTS RESERVED
ASSESSOR 2000



80-02

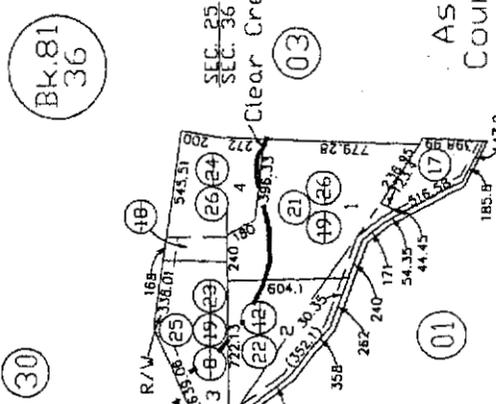
Easterly Boundary
San Vicente Rancho



SITE LOCATION

52PM2
12/27/91

33PM8
7/9/79

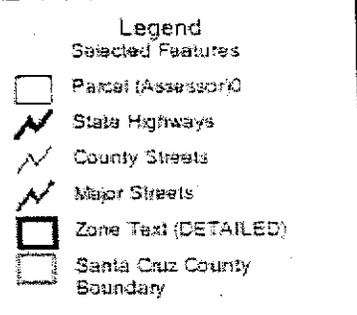
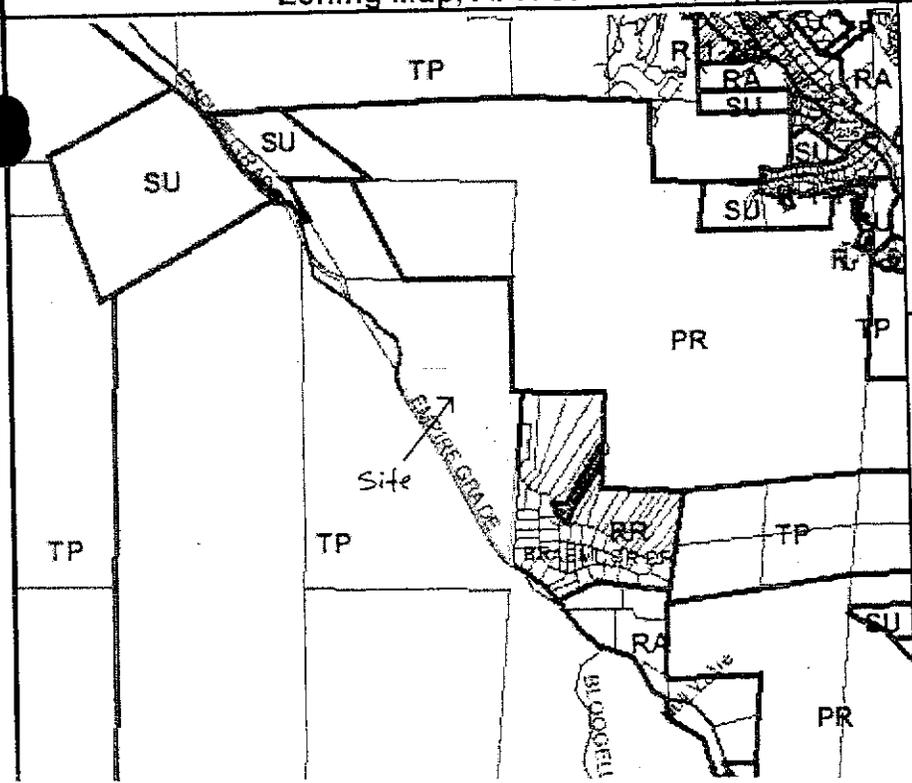


Assessor's Map No. 80-
County of Santa Cruz,
Sept., 2000

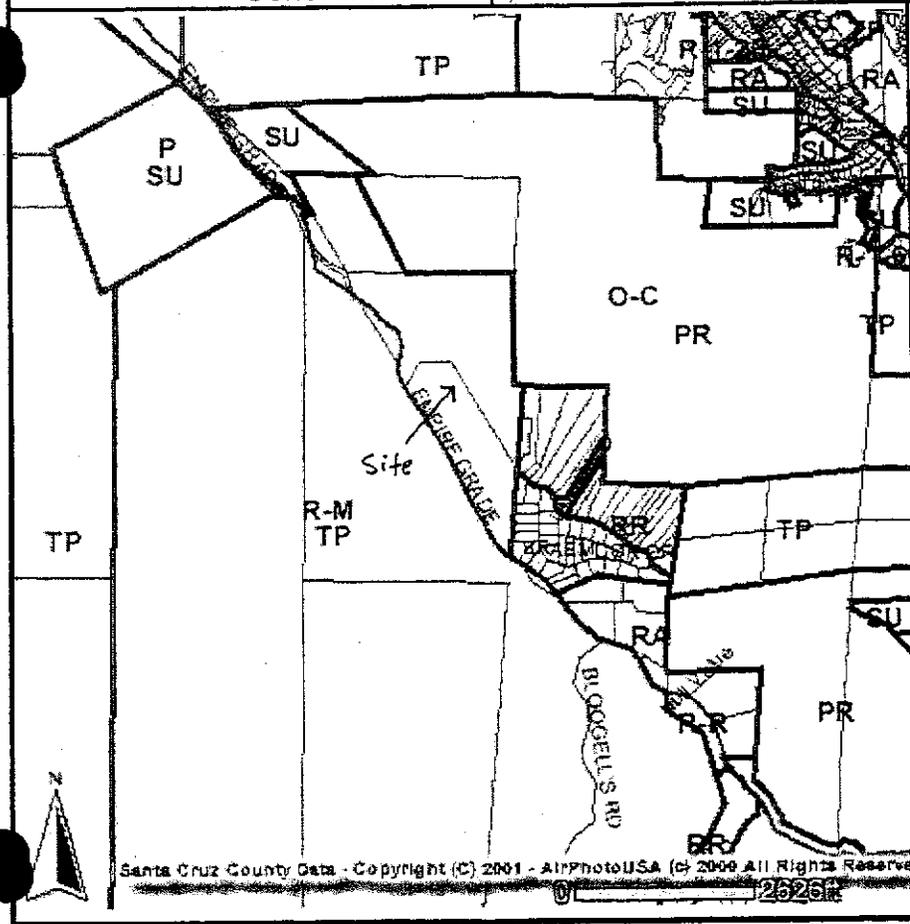
Note - Assessor's Parcel & Block
Numbers Shown in Circles.

EXHIBIT E

Zoning Map, APN 80-021-27, Application 04-0073



General Plan Map, APN 80-021-27, Application 04-0073

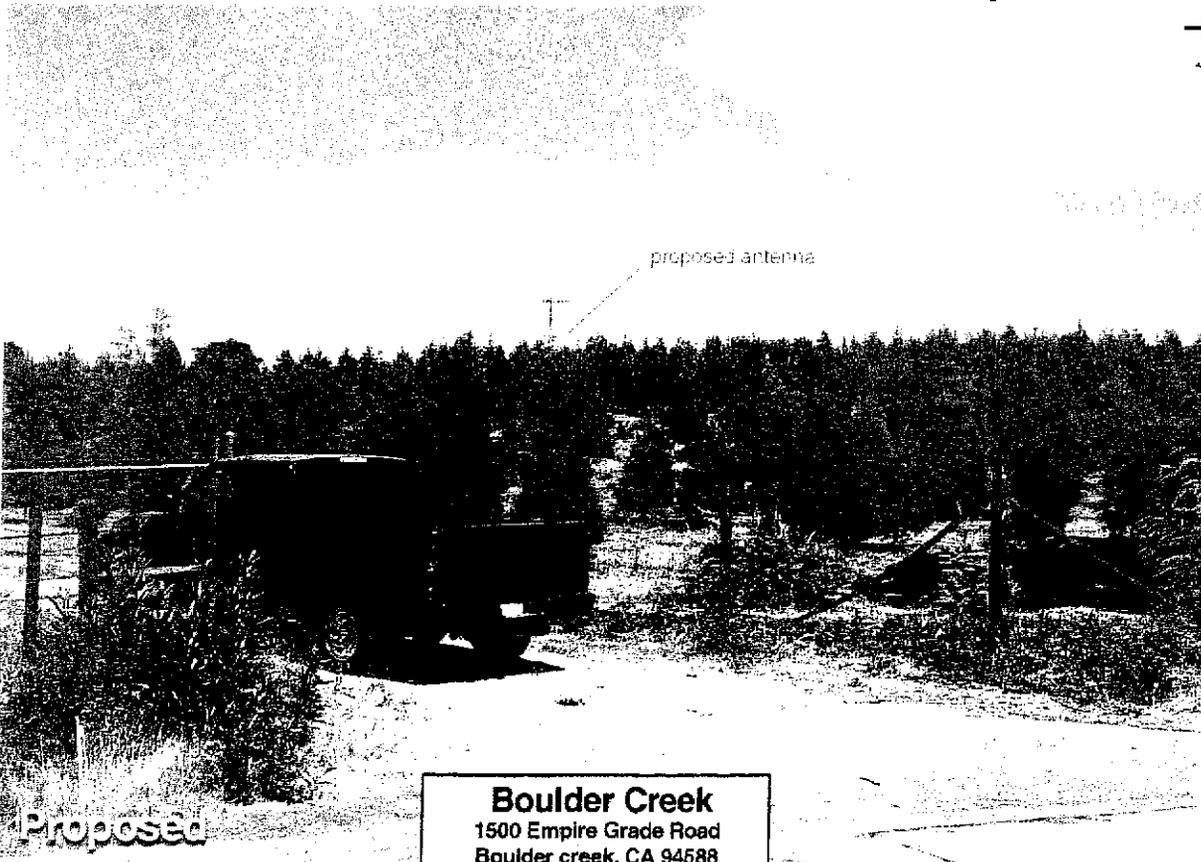


Santa Cruz County Data - Copyright (C) 2001 - AirPhotoUSA (© 2000 All Rights Reserved)



Existing

Looking East from Empire Grade Road



proposed antenna

Proposed

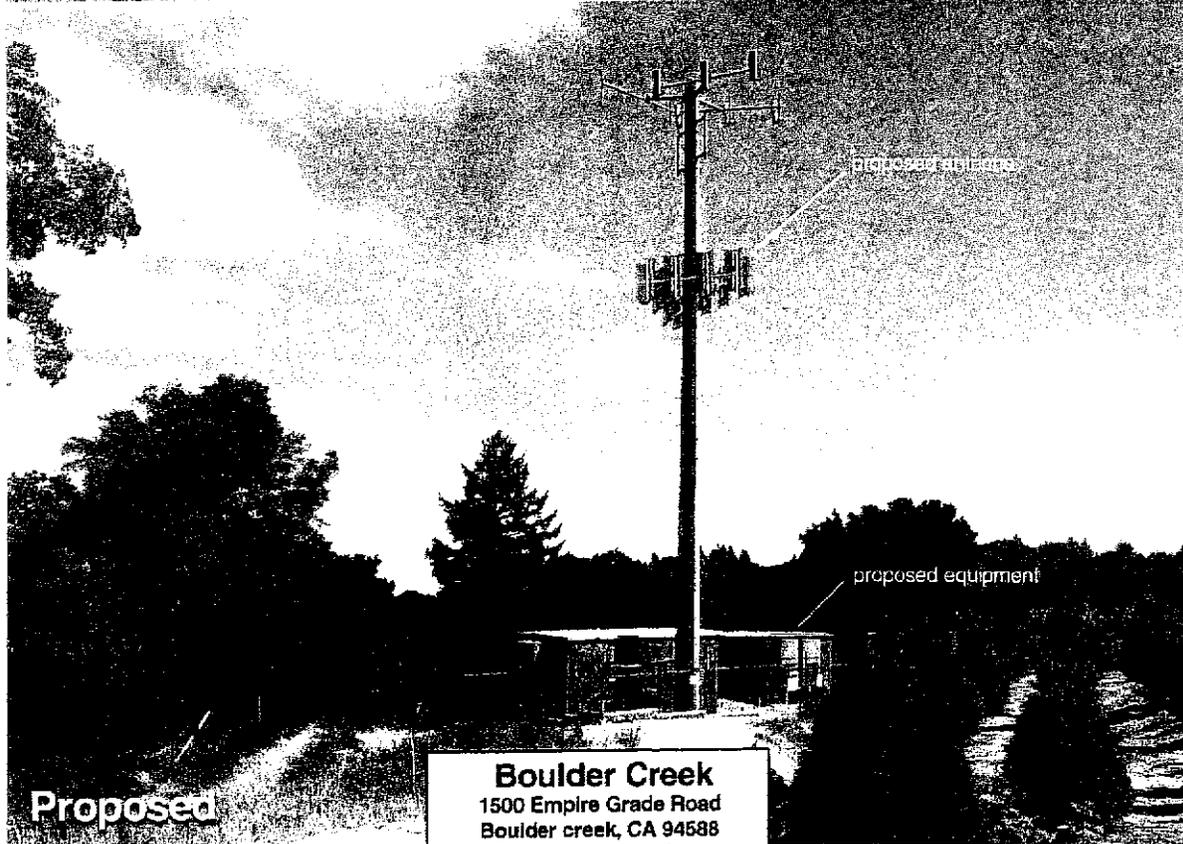
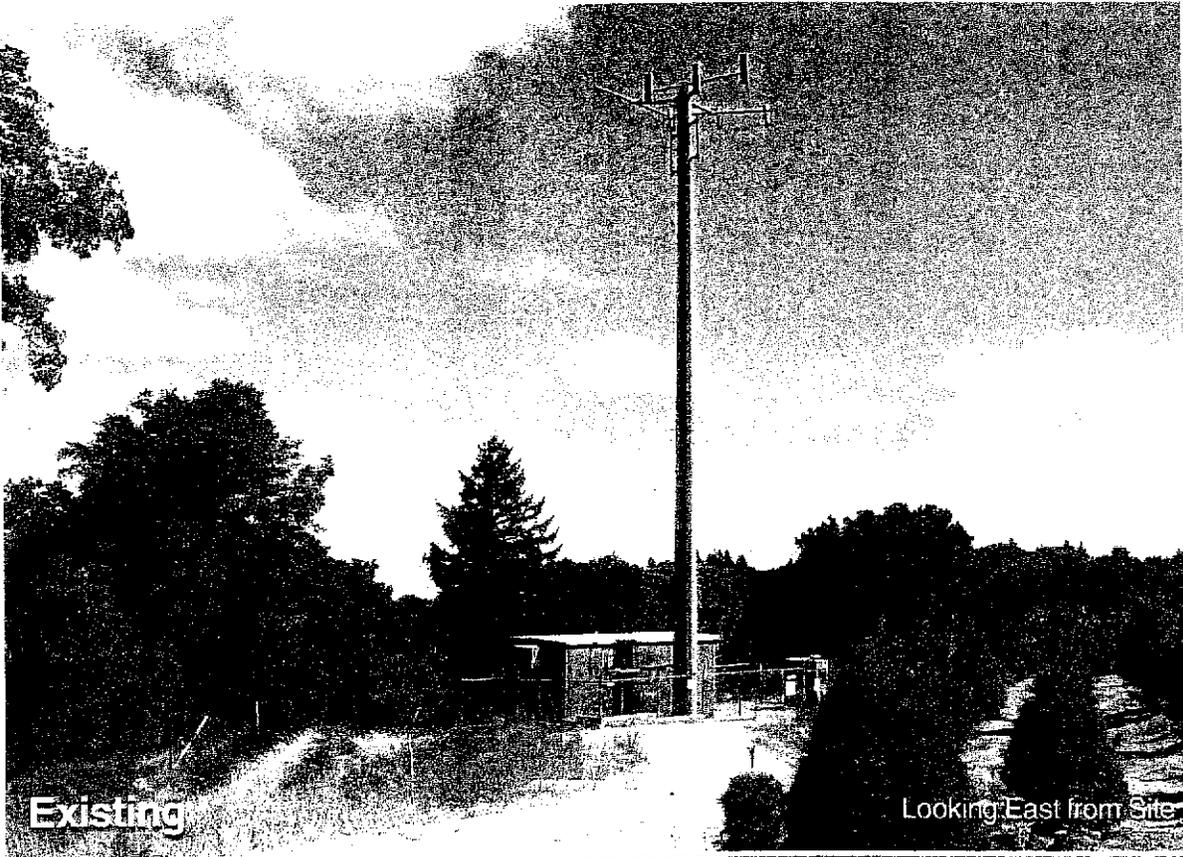
Boulder Creek
 1500 Empire Grade Road
 Boulder creek, CA 94588
 site # CA 2654A

NEXTEL 9/5/03

Photosimulation by Applied Imagination 510 914-0500

View 1

EXHIBIT 6

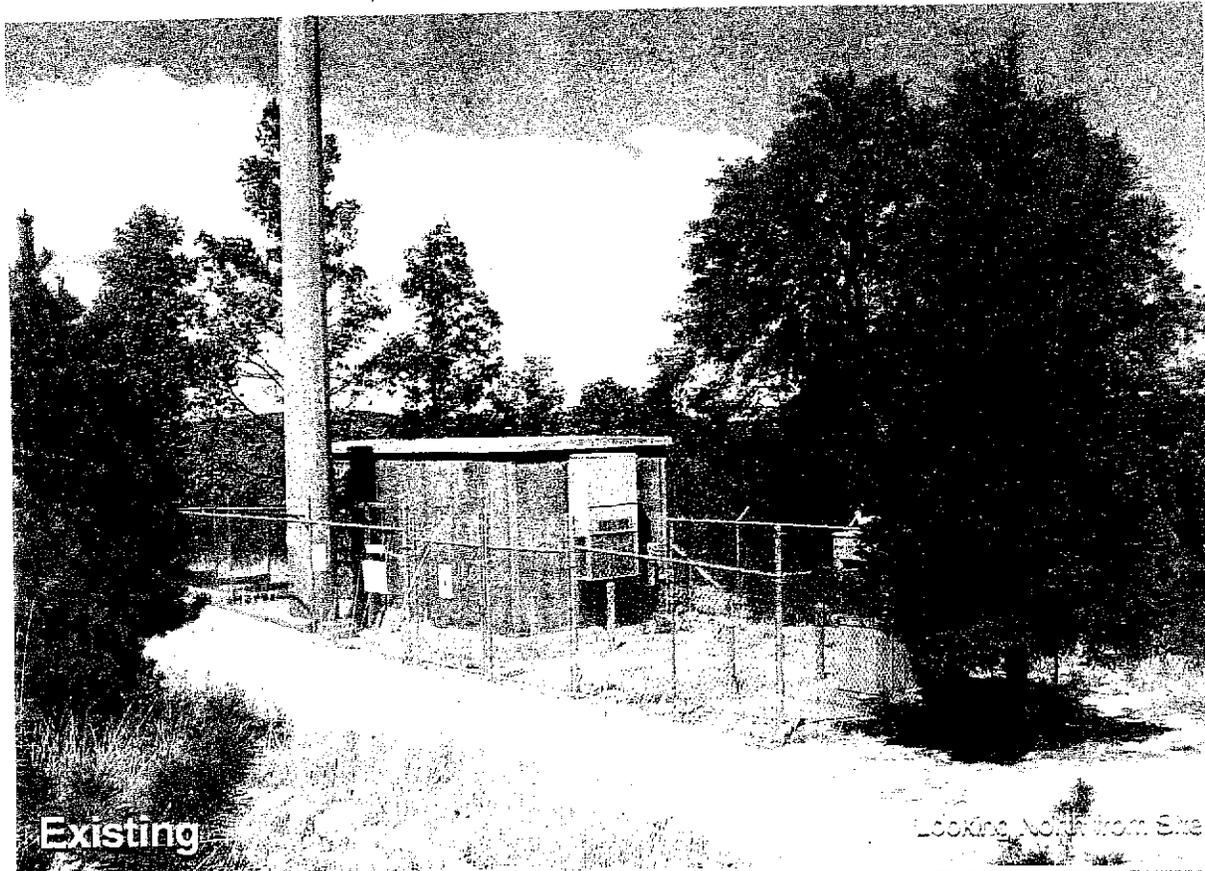


Boulder Creek
1500 Empire Grade Road
Boulder creek, CA 94588
site # CA 2654A

NEXTEL 9/5/03

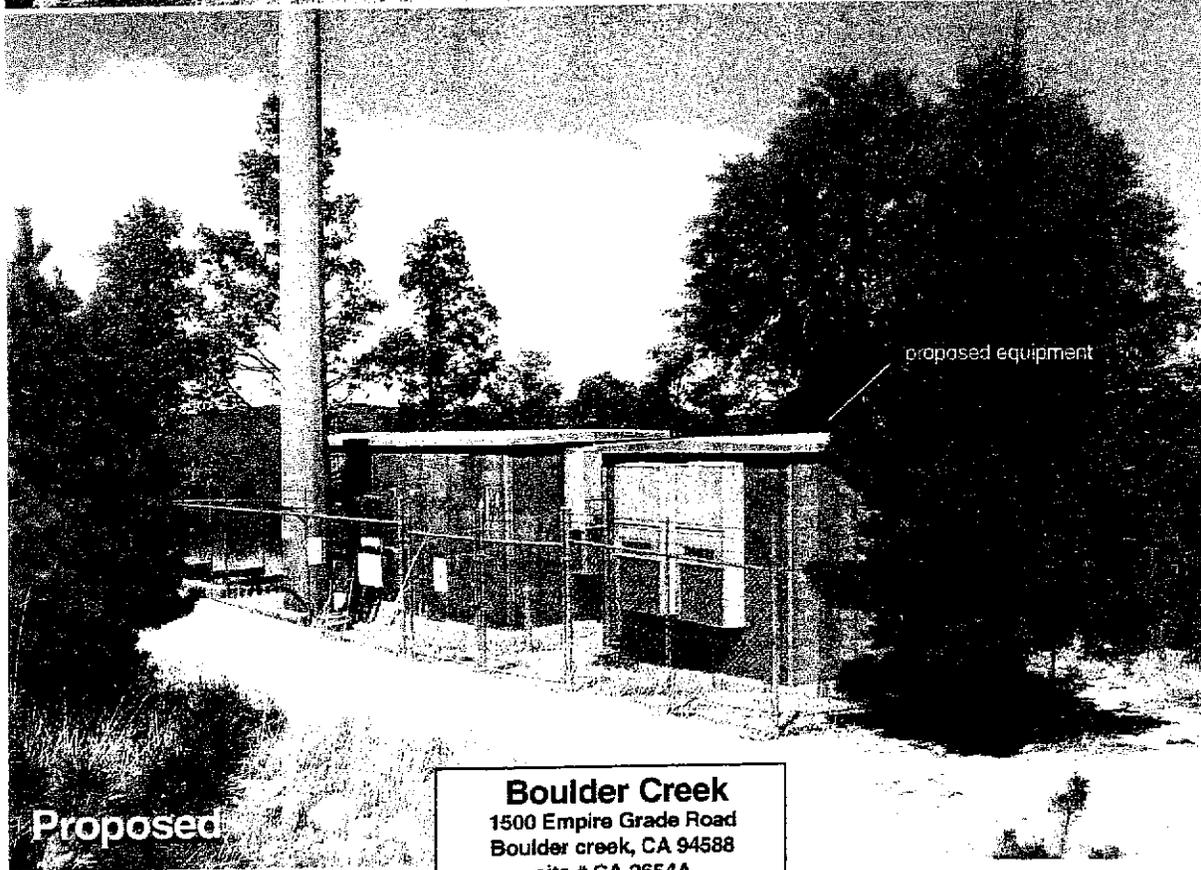
Photosimulation by Applied Imagination 510 914-0500

EXHIBIT G



Existing

Looking North from Site



Proposed

proposed equipment

Boulder Creek
 1500 Empire Grade Road
 Boulder creek, CA 94588
 site # CA 2654A

NEXTEL 9/5/03

Photosimulation by Applied Imagination 610 914-0500

EXHIBIT G

VIEW 3

19

**Nextel SMR • Proposed Base Station (Site No. CA-2654A)
12500 Empire Grade Road • Felton, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Nextel SMR, a wireless telecommunications carrier, *to* evaluate the base station (Site No. CA-2654A) proposed to be located at 12500 Empire Grade Road in Felton, 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 Institute of Electrical and Electronics Engineers (“IEEE”) Standard C95.1-1999, “Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” includes nearly identical 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 thresholds 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>
Personal Communication (“PCS”)	1,950 MHz	5.00 mW/cm ²	1.00 mW/cm ²
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio	855	2.85	0.57
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called “radios” or “cabinets”) 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

**Nextel SMR • Proposed Base Station (Site No. CA-2654A)
12500 Empire Grade Road • Felton, California**

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 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 Nextel, including zoning drawings by Advanced Design Consultants, LLC, dated June 10, 2003, it is proposed to mount up to twelve Andrew Model DB844H90E-XY directional antennas on an existing 82-foot steel pole, located near 12500 Empire Grade Road in Felton. The antennas would be mounted at an effective height of about 55 feet above ground and would be oriented in three groups of three, with 6° downtilt and oriented toward 10°T, 120°T, and 260°T. The maximum effective radiated power in any direction during peak operation periods would be 1,000 watts, representing the simultaneous operation of ten channels at 100 watts each

Located higher on the same pole are similar antennas for use by AT&T Wireless and Verizon Wireless, other telecommunications carrier. AT&T reports that it is using six directional panel antennas mounted at an effective height of about 68 feet above ground; four Allgon Model 7250.03 antennas are oriented in pairs toward 40°T and 120°T and two ARC Wireless Model PCS-DS-16-09007 antennas are oriented toward 260°T, and the maximum effective radiated power in any direction is 985 watts. For the purposes of this study, it is assumed that Verizon has installed Andrew Model DB884H60 directional antennas at a height of about 80 feet above ground, operating with a maximum effective radiated power of 1,500 watts

Study Results

The maximum ambient RF level at any ground level location within 1,000 feet, due to the proposed Nextel operation by itself, is calculated to be 0.0050 mW/cm², which is 0.88% of the applicable public limit. The maximum calculated cumulative level within 1,000 feet for the simultaneous operation of all

**Nextel SMR • Proposed Base Station (Site No. CA-2654A)
12500 Empire Grade Road • Felton, California**

three carriers is 1.1% 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. Figure 3 attached provides the specific data required under Santa Cruz County Code Section 13.10.659(g)(2)(ix), for reporting the analysis of RF exposure conditions.

No Recommended Mitigation Measures

Since they are to be mounted on a tall pole, the Nextel antennas are not accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines.

It is presumed that the three carriers will, as FCC licensees, take adequate steps to ensure that their employees or contractors comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that the base station proposed by Nextel SMR at 12500 Empire Grade Road in Felton, 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.

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, 2005. This work has been carried out by him or 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.



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

December 12, 2003

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

EXHIBIT II

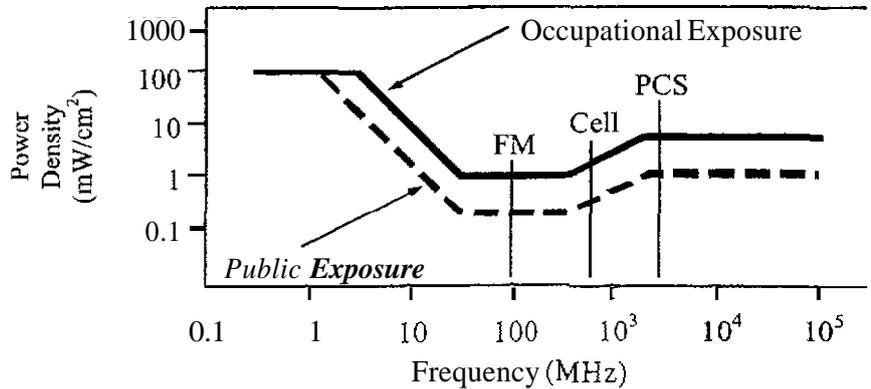
NX2654595
Page 3 of 3

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, which are nearly identical to the more recent Institute of Electrical and Electronics Engineers Standard C95.1-1999, “Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.” 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 (<i>f</i> 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>	ion	<i>180/f²</i>
3.0– 30	1842/ <i>f</i>	<i>823.8/f</i>	4.89/ <i>f</i>	<i>2.19/f</i>	900/ <i>f²</i>	<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√ <i>f</i>	<i>1.59√f</i>	√ <i>f</i> /106	<i>√f/238</i>	<i>f/300</i>	<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 Human Exposure Limitations**

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, which are nearly identical to the more recent Institute of Electrical and Electronics Engineers Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz." 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. 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. The near field zone is the distance from an antenna before which the manufacturer's published, far field antenna patterns have formed; the near field is assumed to be in effect for increasing distance, D until results coincide with far-field predictions. The FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives this formula for calculating power density in the near field zone about an individual RF source:

$$\text{power density } S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}, \text{ in mW/cm}^2,$$

where θ_{BW} = half-power beamwidth of antenna, in degrees, and

P_{net} = net power input to the antenna, in watts.

where h = aperture height of the antenna, in meters, and

λ = wavelength of the transmitted signal, in meters.

The factor of 0.1 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates the distances to the FCC public and occupational limits.

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 in 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 ($1.6 \times 1.6 = 2.56$). 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.

These formulas have 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 at the site, to obtain more accurate projections.

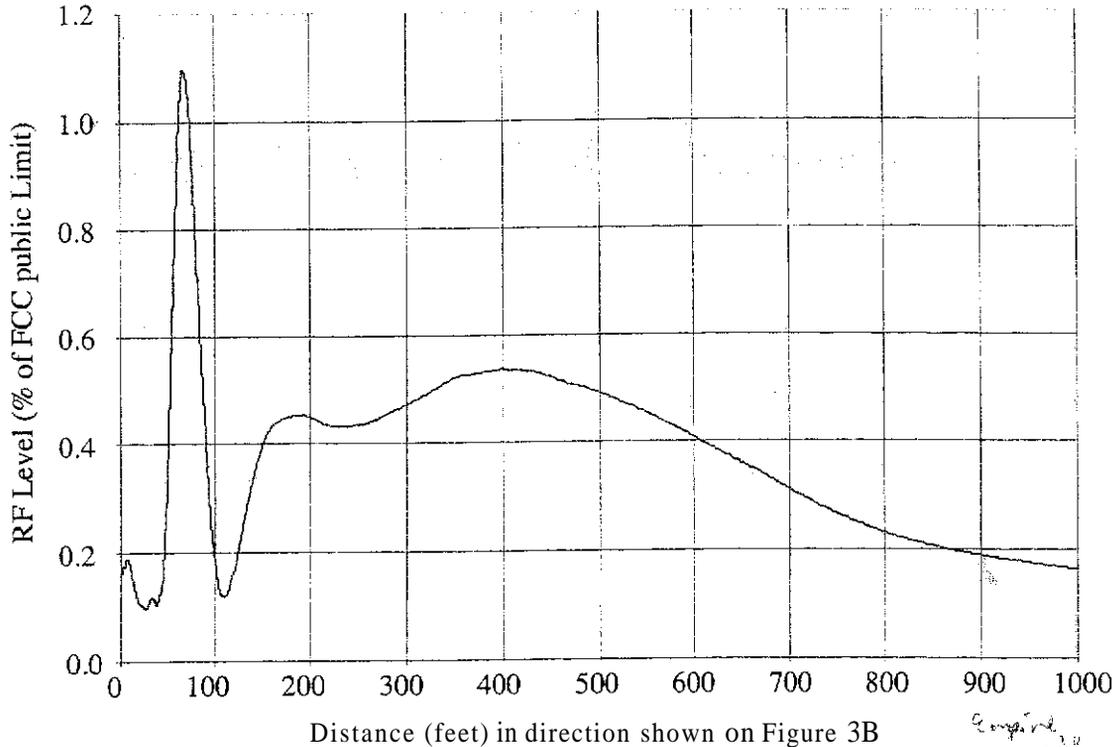
* The fa-field azimuth patterns included to account for exposures at locations behind the antenna.

**Nextel SMR • Proposed Base Station (Site No. CA-2654A)
12500 Empire Grade Road • Felton, California**

Compliance with Santa Cruz County Code §13.10.659(g)(2)(ix)

"Compliance with the FCC's non-ionizing electromagnetic radiation (NIER) standards or other applicable standards shall be demonstrated for any new wireless communication facility through submission, at the time of application for the necessary permit or entitlement, of NIER calculations specifying NIER levels in the area surrounding the proposed facility. Calculations shall be made of expected NIER exposure levels during peak operation periods at a range of distances from fifty (50) to one thousand (1,000) feet taking into account cumulative NIER exposure levels from the proposed source in combination with all other existing NIER transmitter sources within a one-mile radius. This should also include a plan to ensure that the public would be kept at a safe distance from any NIER transmission source associated with the proposed wireless communication facility, consistent with the NIER standards of the FCC, or any potential future superceding standards."

Calculated Cumulative NIER Exposure Levels during Peak Operation Periods



Distance (feet)	50	100	200	300	500	750	1,000
RF level (% limit)	0.33%	0.19%	0.45%	0.47%	0.49%	0.27%	0.16%

Calculated using formulas in FCC Office of Engineering Technology Bulletin No. 65 (1997) considering terrain variations within 1,000 feet of site.

Maximum effective radiated power (peak operation) - 1,000 watts

Effective Nextel antenna height above ground - 55 feet

Other sources nearby - AT&T Wireless and Verizon Wireless

Other sources within one mile - No AM, FM, or TV broadcast stations

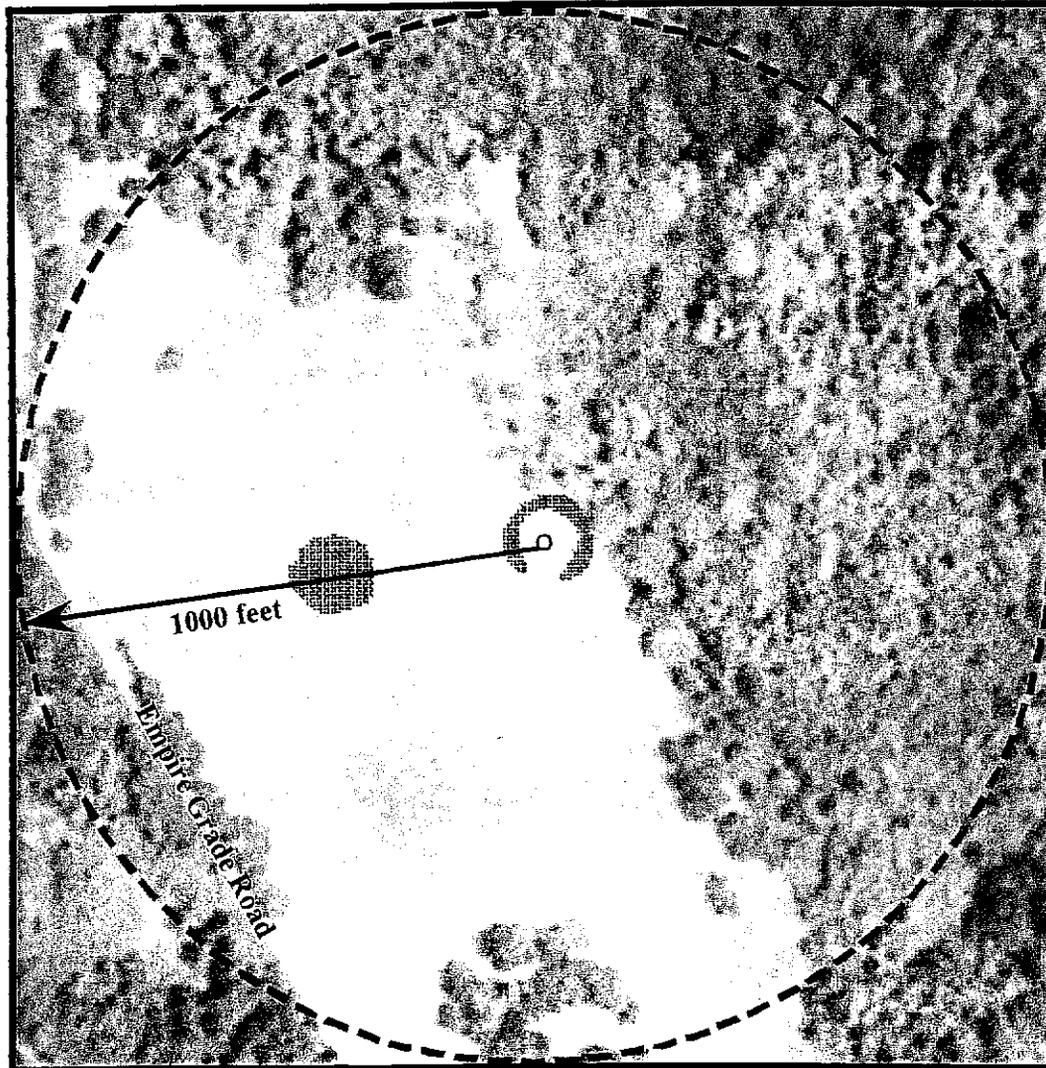
No two-way stations close enough to affect compliance

~~Plan for restricting public access~~ - Antennas are mounted on tall pole within fenced enclosure

e
Nextel SMR • Proposed Base Station (Site No. CA-2654A)
12500 Empire Grade Road • Felton, California

**Calculated NIER Exposure Levels
Within 1,000 Feet of Proposed Site**

**For Simultaneous Operation of
Nextel SMR, AT&T Wireless, and Verizon Wireless**



Aerial photo from Mapquest.

Legend	
blank	- less than 0.5% of FCC public limit (<i>i.e.</i> , more than 200 times below)
	- 0.5% and above near ground level (highest level is 1.1%)

Calculated using formulas in FCC Office of Engineering Technology Bulletin No. 65 (1997), considering terrain variations within 1,000 feet of site. See text for further information.

Project Synopsis

Nature of Request

Nextel Communications (Nextel") seeks approval of a Conditional Use Permit, and all related permits to allow the co-location of a communication facility on an existing parcel, developed with a "monopole". Crown Castle International - 6620 Owens Drive Pleasanton, CA. 94588, owns the existing telecommunications facility. The proposed plan calls for (12) new antennas, 3 sectors, four antennas per sector. The antennas are to be mounted below the existing configuration, at an operating center of 55' above ground level. The existing tower is 81' - 8" above ground level. The ancillary equipment shelter will be placed next to the tower, within the existing compound. The shelter will require a new concrete slab, approximately 11' x 20', within the 20'x28' lease area. The base station is intended to provide improved coverage for the San Lorenzo valley. This facility is being proposed in accordance with Nextel's FCC license requirements.

Property Description

The subject property is located at 12500 Empire Grade Road, Santa Cruz County. The Assessor's Parcel # of the property is 080 - 021 - 27. The property owner is Mr. Fred Jensen, of the same address. The existing facilities are located at the southeastern end of the property. The property is a Timber Production zone, with a Commercial Agriculture designation, and has no neighboring residential structures within 500 feet of the communication facility. The property has no public access, and is not visible from anywhere but Empire Grade Road. The existing tower is the only location within a two-mile radius that is approved for telecommunications use.

Project Description

Nextel Communications proposes to provide service for the area around this parcel by installing (12) new antennas to an existing "monopole". The flat panel antennas will be mounted below the existing antennas, at an operating center height of 55 above ground level. The existing pole stands at 81' - 8" in height. The equipment shelter is to be placed within the existing compound, behind a locked gate and fence. The entire equipment area is not within any public access, and will not be expanded to include the Nextel equipment. The on-site generator will be re-located to accommodate the proposed equipment shelter. Access to the project site will be gained through permission of the property owner, and will only be gained by authorized Nextel employees and contractors for periodic monitoring. There are no hazardous materials used in conjunction with this facility. This facility is part of a three site network plan for San Lorenzo valley and the surrounding area.

1255 Treat Blvd. Suite 800
Walnut Creek, CA 94596
Main (925) 279-5780
Fax (925) 279-2683



Statement of Operations

The proposed Nextel facility requires only electrical and telephone services, which are available at the site. No nuisances will be created by the proposed installation, and the facility will not endanger public safety or health. The expanded service will benefit the public. Cellular technology does not interfere with any other forms of electronic communication, public or private. Construction of the facility may be done with minimal impact to the surrounding area, and the entire complex is securely self-contained.

Upon completion of the project, periodic maintenance will occur, but the site is to operate as an unmanned facility. Existing parking will be unaffected. The site is self-monitoring, and connects directly to central office computers, which alert personnel to any equipment malfunction or security breach. No on-site water or sanitation facilities will be required in this proposal.

Zoning Analysis

Pursuant to The County of Santa Cruz Wireless Telecommunication Services (WTS) guidelines, the proposed use is permitted in this Zoning District, subject to approval of a Conditional Use Permit. The proposal is consistent with the County design, siting, and review guidelines for commercial antenna installation. The project calls for co-location with existing facilities, and is architecturally integrated into the existing conditions. The proposal is put forth in the least obtrusive manner possible, and is separated from areas of public access. This proposal adheres to all of the design guidelines outlined in the current County Zoning Ordinance.

Compliance with Federal Regulations

Nextel Communications' installations comply fully with all Federal Communications Commission (FCC) guidelines, governing construction requirements, technical standards, interference protection, power level and height restrictions, and radio frequency regulations. Additionally, Nextel will comply with all Federal Aviation Administration (FAA) standards on cellular base station operations. Nextel's facilities are proposed and built in strict accordance with all Federal (NEPA), State (CEQA) and local environmental regulations.

Alternative Site Analysis

The area surrounding the subject parcel does not contain another wireless facility within 10,000 feet. This site was selected for very specific reasons: 1) The view of the intended coverage area; 2) The fact that a site exists and co-location is encouraged by the jurisdiction, and 3) the design of the proposal integrates well with the current zoning standards for the County of Santa Cruz. In addition to this, the existing layout facilitates construction in a non-invasive manner.

Our goal in determining this site as one for our proposal is based on minimizing impacts, visual and others, and to adhere as closely as possible to the zoning standards set forth by the jurisdiction regarding cellular base stations.

No other reasonable candidates exist within the search area, and to create a new facility on another parcel would mean closer encroachment to residential areas, greater visual impacts to the community, and a more intrusive construction process. The commercial zoning and favorable location of this facility make it the ideal candidate for Nextel to provide improved service to this area.

Amendment

The applicant agrees to notify within 30 days, any change of information required and submitted as part of this ordinance.

Technical Review

An independent technical expert, at the direction of the County of Santa Cruz and notification by, may review any technical materials submitted with this application.



Tetra Tech Communication Services
 1255 Treat Blvd. Suite 800
 Walnut Creek, CA 94596
 Main (925) 279-5780
 Fax (925) 279-2683

Supplemental Application Information

(1) Pre Application Meeting

Tetra Tech Communications has met with the Santa Cruz County Planning Department in December of 2003. Issues discussed were site location, zoning classifications and co- location policies. Since co-locations on existing facilities are encouraged by the county ordinance, the proposed site was considered favorable due to the surrounding conditions, and the private access to the site. This proposal meets with the county's expectations and guidelines, and does not pose a significant impact to the existing conditions.

(2) Submittal Information

(i) Identity and Legal Status of the Applicant

Nextel Communications Corporation
 DBA "Nextel of California"

(ii) Name Address and Telephone Number

Nextel of California
 1255 Treat Boulevard
 Suite 800
 Walnut Creek, CA 94596
 925/279-2300

(iii) Name, Address, Telephone # of Authorized Agent

Tetra Tech Communications Services, Inc
 1255 Treat Boulevard
 Suite 800
 Walnut Creek, CA 94596
 Contact Representative: David Ney - ph.925/250-1498

*Note: see elsewhere
 for revised applicant/
 agent.*

(iv) Address, Parcel Map Description Lat/Long

12500 Empire grade Road
 Boulder Creek, Ca. 95006
 A.P.N. # 080 - 021 - 027

Latitude/Longitude
 37' 07' 18.32" N
 122' 09' 22.83" W
 (NAVD 88)

EXHIBIT I

(v) Narrative of Future Sites (5 year plan)

The build out plan for Nextel of California is determined by RF engineers who design the system to allow for the maximum blanketing coverage, while using the least amount of sites in the area. This limits the number of visual impacts in the area, and can minimize the expense of building the network, thus keeping the price of wireless services down, while quality of service remains good. The current 3rd generation network will require 6 to 10 sites throughout Santa Cruz county. Preliminary studies have determined that currently, 6 sites fall within the jurisdiction of Santa Cruz County, with the remaining sites yet to be determined by Nextel engineers.

(vi) Wireless Services to be Provided

Benefits to the Community

Wireless technology can provide many benefits to the County of Santa Cruz County residents. These benefits include:

- 1) Quick access to 911 emergency allowing motorists to summon emergency aid and report dangerous situations.
- 2) Support for emergency services by providing wireless communications access to paramedics, firefighters and law enforcement agencies that utilize this technology
- 3) The ability to transmit data over the airwaves allowing immediate access to information for emergency services
- 4) Communication capabilities in remote areas, enhancing the safety of travelers and residents by allowing immediate access to emergency services.
- 5) Provide quality wireless communication including voice, paging and digital data.
- 6) Enhance the communication services of those residents who conduct business and professional services for Santa Cruz County.

(vii) California Public Utilities Commission

Nextel of California is registered with the CPUC under General Order 159A as:

- 1) Nextel of California
- 2) Nextel Communications Corporation

(viii) Federal Communications Commission

Nextel Communications is registered with the Telecommunications Bureau as:

FCC License # WPOH392

Date of issuance: 06/17/98

*Site- specific FCC licenses are issued as each new site goes on -air.

(ix) FCC Compliance with NIER Standards

Exhibit E, which describes NIER/EMF compliance issues regarding this proposal. This report is submitted respectively by Hammett & Edison, an independent consultant that examines the safety of cellular installations.

EXHIBIT I

(x) Security Considerations

The proposed area of installation is not accessible to the general public, being located on private property. Only authorized technicians will be allowed access to the facility, through permission of the property owner.

Federal Law mandates that all areas, in compliance with FCC guidelines, shall include ANSI compliant RF sign in a visible place for workers approaching the site.

(xi) Visual Impact Study

Exhibit F, photographic simulations, which show what the site will look like from the nearest public vantage point.

EXHIBIT I



COUNTY OF SANTA CRUZ
Planning Department

COMMERCIAL DEVELOPMENT **PERMIT**

Darcy

Owner Fred Jensen
Address 17400 High Street
Los Gatos, CA 95032

Permit Number 93-0239
Parcel Number(s) 080-021-27

PROJECT DESCRIPTION AND LOCATION

Proposal to construct a G.T.E. Mobilnet Cell site consisting of an 80 foot high monopole with panel antenna and microwave dish, emergency generator, diesel tank, transformer pad, and a 292.5 square foot prefabricated equipment building. Requires a commercial development permit and a grading permit to grade 425 cubic yards of earth. Property located on the east side of Alba Road. Subject to attached conditions.

Approval Date: 3/1/94
Exp. Date (if not exercised) N/A/96
Denied by: 3/1

Effective Date: 3/1/94
Coastal Appeal Exp. Date: N/A
Denial Date: _____

This project requires a coastal zone permit which is not appealable to the California Coastal Commission, it may be appealed to the Planning Commission. The appeal **must** be filed within 10 working days of action by the Zoning Administrator.

_____ This project requires a Coastal Zone Permit, the approval of which is appealable to the California Coastal Commission. (Grounds for appeal are listed in the County Code Section 13.20.1 10) The appeal must be filed with the Coastal Commission within 10 working days of receipt by the Coastal Commission of notice of local action. Approval or denial of the Coastal Zone Permit is appealable to the Planning Commission; the appeal must be filed within 10 working days of action by the Zoning Administrator.

This permit cannot be exercised until after the Coastal Commission appeal period. That appeal period ends on the above indicated date. Permittee is to contact Coastal staff at the end of the above appeal period prior to commencing any work.

A Building Permit must be obtained (if required) and construction must be initiated prior to the expiration date in order to exercise this permit. **THIS PERMIT IS NOT A BUILDING PERMIT.**

By signing this permit below, the Owner agrees to accept the terms and conditions of this permit and to accept responsibility for payment of the County's costs for inspections and all other actions related to noncompliance with the permit conditions. This permit shall be null and void in the absence of the owner's signature below.

Signature of Owner/Agent
Nancy Houghton
Staff Planner

Date
3/7/94
Date

EXHIBIT J

Distribution: Applicant - white, File -yellow, Clerical - pink, Coastal Commission - goldenrod

DEVELOPMENT PERMIT FINDINGS:

REVISED 12/15/93

Required Findings:

1. THAT THE PROPOSED LOCATION OF THE PROJECT AND THE CONDITIONS UNDER WHICH IT WOULD BE OPERATED OR MAINTAINED WILL NOT BE DETRIMENTAL TO THE HEALTH, SAFETY, OR WELFARE OF PERSONS RESIDING OR WORKING IN THE NEIGHBORHOOD OR THE GENERAL PUBLIC, OR BE MATERIALLY INJURIOUS TO PROPERTIES OR IMPROVEMENTS IN THE VICINITY.

The proposed G.T.E. Mobilnet Cellular site will emit radiofrequency radiation (RFR) and microwave radiation. The applicant has provided an assessment of the potential for health effects from these emissions. The study has been conducted by radiation consultant, Peter Polson, PH.D. (see Attachment 8 of Exhibit C). Assessment results are based on the engineering design information for this particular site.

The 80 foot tower will support six antennas, functionally arranged in threes. These antennas are the source of the radiofrequency radiation (RFR). The antenna system is planned to have the capacity of 32 channels. The effective radiated power (ERP) will be 32.5 watts per channel. The maximum RFR power density level to which people could be exposed in the vicinity of the tower is less than 0.4 microwatts (millionths of a watt) per sq cm. The most stringent exposure standard in the United States allows exposures of approximately 1,350 times greater than the highest level near the facility. Levels at residences surrounding the site will be less. Levels inside residences are estimated to be between 10 and 100 times less than the outdoor levels because of the attenuation properties of vegetation and building materials.

The facility will include an eight foot diameter grid dish mounted just below the antenna system. A microwave communications link is planned between this site and the Loma Prieta cell site using this microwave dish. The radiated microwave power will be 1.25 watts. It will be a highly directional, narrow beam of radiation. The maximum power density in the microwave beam (73 feet above the ground) will be approximately 37 microwatts per sq cm. At ground level, the microwave power density will be hundreds of times less than in the beam, or less than 0.37 microwatts per sq cm. This value is approximately 3,600 times lower than the maximum permissible exposure level for this frequency as determined by the IEEE C95.1-1991 standard, and is negligible in terms of potential hazard to human health.

The project will not result in the disposal of any wastes. The equipment building will be occupied only briefly during routine periodic maintenance work. No waste disposal system or water source will be required.

The facility will not obstruct any private or public viewshed. The tower will be almost entirely screened by trees and other vegetation. It will not be detrimental to surrounding properties or improvements.

EXHIBIT J

2. THAT THE PROPOSED LOCATION OF THE PROJECT AND THE CONDITIONS UNDER WHICH IT WOULD BE OPERATED OR MAINTAINED WILL BE CONSISTENT WITH ALL PERTINENT COUNTY ORDINANCES AND THE PURPOSE OF THE ZONE OISTRICT IN WHICH THE SITE IS LOCATED.

The project site is zoned TP (Timber Production). Utilities such as communications facilities are conditional uses within the TP Zone District . To find that a conditional use is consistent with the zoning, the use must prove to be compatible with the surrounding, existing uses. The proposed cellular transmission site is compatible with the neighboring residential uses.

Section 13.10.371 of the County Code establishes the purposes of the TP Zone Oistrict. The TP Zoning is intended to protect and maintain the timberland of the County through regulation of timberland use; to establish a zone district consistent with the mandates of the Forest Taxation Reform Act of 1976; to protect the health, safety and welfare of the people of Santa Cruz County; and to preserve agriculture and other open space uses where compatible with timberland uses. A Timber Management Plan has been prepared and accepted for the project area. The plan establishes long range timber management techniques which the property owner has agreed to implement. A letter has been submitted from a forester which addresses the impacts of the project on the timber resources and future implementation of the timber management plan. The letter by Stephen Smith dated February 10, 1993, (see Attachment 6 of Exhibit C), concludes that construction and operation of the G.T.E. Mobilnet Cellular Site will not disrupt the management of the timber resources or conflict with future timber harvests.

3. THAT THE PROPOSED USE IS CONSISTENT WITH ALL ELEMENTS OF THE COUNTY GENERAL PLAN AND WITH ANY SPECIFIC PLAN WHICH HAS BEEN ADOPTED FOR THE AREA.

The project site is designated Mountain Residential on the Santa Cruz County General Plan. Chapter 5.1 of the General Plan describes the objectives and policies for development in the Mountain Residential Land Use Classification. The Mountain Residential areas are unsuited to intensive development due to the presence of physical hazards and development constraints, the necessity to protect natural resources, and the lack of public services and facilities. The project under-consideration will not subject any humans to physical hazards as it will not be occupied by a full time resident. The equipment building will only be occupied occasionally for maintenance purposes. The analysis by the forester for the project has demonstrated that the cellular transmission facility will not impact the timber resource;. No other mapped protected natural resources exist at this location. The project does not require public services which are not available at this location such as public water and sewer to operate. Therefore, the proposal to allow a communication facility is consistent with the criteria for development in the Mountain Residential General Plan Classification.

EXHIBIT J

4. THAT THE PROPOSED USE WILL NOT OVERLOAD UTILITIES AND WILL NOT GENERATE MORE THAN THE ACCEPTABLE LEVEL OF TRAFFIC ON THE STREETS IN THE VICINITY.

The project will not require the use of public services such as water and sewer. Electrical and telephone utilities will be placed underground. These utilities will not be overloaded.

Fire protection will be provided by the County Fire Department. The proposal includes installation of an automatic fire extinguishing system within the equipment building. The County Fire Department has approved the project with the halon sprinkler system and 12 foot wide access road.

The site will be served by a new access road off Empire Grade Road. It will consist of a 20 foot wide right-of-way, with a 12 foot wide improved surface which will be 6" Class 111 aggregate base. Adequate turn around will be provided at the end of the road. The transceiving site will generate about one trip for the purposes of maintenance each month. The maintenance vehicle will not include large equipment which may be inappropriate for a 12 foot wide access road. This section of Empire Grade Road is not operating at a level of service which would prohibit one additional trip each month.

5. THAT THE PROPOSED PROJECT WILL COMPLEMENT AND HARMONIZE WITH THE EXISTING AND PROPOSED LAND USES IN THE VICINITY AND WILL BE COMPATIBLE WITH THE PHYSICAL DESIGN ASPECTS, LAND USE INTENSITIES, AND DWELLING UNIT DENSITIES OF THE NEIGHBORHOOD.

The project site consists of a 46 acre Christmas tree farm. Structures and improvement associated with the tree farm such as caretakers residence, outbuildings, and a rough road system are located throughout the property. Surrounding the farm are 2 residential uses with accessory agricultural pursuits. Large, vacant parcels with timber and open space uses are located to the north, west, and south of the site. To the south-east a subdivision consisting of residentially used lots exists. The dense vegetation and distance from the developed site are factors which minimize the visibility of the tower from these residences. To the east is an open space area owned by the San Lorenzo Valley Water District. The project will have minimal impact on these surrounding uses due to the lack of noise or any other disturbance associated with the proposed communication facility.

Photographic evidence of the visibility of a similar sized tower was provided regarding the proposed monopole and antennae, at this particular site. It will complement the surrounding Braemore Drive neighborhood and harmonize with the surrounding land uses in that it does not result in a significant visual impact to the neighborhood and provides cellular telephone services which will benefit the neighborhood.

EXHIBIT J

Applicant: Matthews Land Co. for G.T.E. Mobilnet, Inc.
Application No.: 93-0239
APN: 080-021-27

CONDITIONS OF APPROVAL
Commercial Development Permit
Application No. 93-0239
APN: 080-021-27
Fred Jensen
Mathews Land Company for G.T.E. Mobilnet

PLANNING AREA: San Lorenzo Valley
LOCATION: 12500 Empire Grade Road in Bonny Doon

EXHIBITS

- A. Findings
 - B. Conditions
 - C. Environmental Review Initial Study and Notice Of Determination
 - D. Letter from Matthews Land Company dated April 20, 1993 which includes project details
 - E. Location Map
 - F. Assessor's Map
 - G. Zoning Map
 - H. Site Plan of Property
 - I. Site Plan of G.T.E. Mobilnet Cell Site
 - J. Project Plans (on file at the Planning Department)
- I. Applicant shall obtain a building permit and a grading permit for the proposed improvements. Building plans shall substantially conform to the approved Exhibit J and the following.
- A. To provide an adequate and stable foundation base for the antenna pole and related structures, the owner/applicant shall follow all recommendations of the soil report prepared for this project by Earth Systems Consultants dated March 26, 1993 in project grading and construction.
 - B. Plans for the automatic fire extinguishing system.
 - C. Proposed color of exterior of equipment and fence.
- ii. Prior to approval of the building permit and grading permit, the following shall be completed.
- A. To ensure that all soil report recommendations have been followed, the owner/applicant shall submit the following to the County Planning Department:
 1. A plan review letter from the project geotechnical engineer demonstrating geotechnical review and approval of the project building plans (submitted prior to issuance of Building Permit);
 2. To prevent erosion impacts from occurring as a result of grading activities for the project, the owner/applicant shall revise the project grading plan to incorporate the following:
 - a. Show drainage improvements along the project roadway entrance and at the building site;

EXHIBIT J

- E. Submit a landscape plan to the Planning Department which proposes planting native trees to the north of the proposed cellular site; along the south-west property line of Assessor's Parcel Number 080-021-27.
 - b. Show details for energy dissipation ; and
 - c. Include a letter from the project geotechnical engineer that demonstrates the grading plan's drainage and erosion control features have been reviewed and approved by this consultant.

- 111. Prior to pouring concrete for the foundations, an inspection letter shall be submitted from the project geotechnical engineer that demonstrates soil excavations meet the recommendations of the soil report.

- IV. Prior to final inspection/ occupancy, the following shall be complied with.
 - A. Submit a final inspection letter from the project geologist demonstrating that all recommendations of the soil report have been adequately complied with in the construction of the project.
 - E. To minimize the visual impact of the antenna pole, the owner/applicant shall:
 - 1. Paint the pole, associated buildings and fences dark green and permanently maintain them with this color;
 - 2. Not attach any flags, banners, signs, beacons or other similar visual displays to the antenna pole or its antennas in view of any property beyond the project parcel.
 - 3. Extend the planting of coast live oak (*Quercus agrifolia*) and madrone (*Arbutus menziesii*) to the west side of the project site in a manner that will effectively screen the visibility of the lower 30-40 feet of project facilities from Empire Grade right-of-way in the event all Christmas trees in that vicinity are harvested.
 - 4. Implement the approved landscape plan to plant native trees to the north and east of the cellular site.
 - C. To protect against fire danger from the project facilities, the owner/applicant shall:
 - 1. Install an automatic fire suppression system in the equipment building prior to final inspection and clearance of the Building Permit; and
 - 2. Construct the project roadway at a width of 12 feet.

- V. Operational conditions.
 - A. Permanently retain and maintain all visual screening tree planting surrounding the project building site.
 - B. This permit authorizes a monopole equipped with six antennas, functionally arranged in groups of three. Each set will comprise a transmitter and two receiver antennas. One set will service an approximately 90-degree sector and the other set will service a similar sector at 135 degrees. The system shall have a maximum capacity of 16 channels per sector. Any modification in the type of equipment, number of channels, or radiated power per channel shall be reviewed and acted on subsequent to public notice and a public hearing. The County may deny or modify the conditions in the Commercial Development Permit at this time.

EXHIBIT J

- C. If as a result of future scientific studies and alterations of industry wide standards resulting from those studies, substantial evidence is presented to the County that radio frequency transmissions may be a hazard to human health and/or safety, then the County Planning Department shall set a public hearing and in its sole discretion, may revoke or modify the conditions in the Commercial Development Permit.

VI. Mitigation Monitoring

The mitigation measures listed under this heading have been incorporated into the conditions of approval for this project in order to mitigate or avoid significant effects on the environment. As required by Section 21081.6 of the California Public Resources Code, a monitoring and reporting program for the above mitigations is hereby adopted as a condition of approval for this project. This monitoring program is specifically described following each mitigation measure listed below. The purpose of this monitoring is to ensure compliance with the environmental mitigations during project implementation and operation. Failure to comply with the conditions of approval, including the terms of the adopted monitoring program, may result in permit revocation pursuant to Section 18.10.462 of the Santa Cruz County Code.

1. Mitigation Measure: Condition I.A. - Follow recommendations in the soil report.

Monitoring Program: The building technician will require that the applicant submit two copies of the soil report with the application for the building permit. The building permit application and plans shall be reviewed by the Environmental Planning Section and the Building Plan Checker with the copies of the soil report. Foundation plans and grading plans must match specifications in the report. In addition, a plan check letter from the soil engineer is required which states that the plans conform to the recommendations in the report (per Condition II.A.1.). A building permit will not be issued until this letter is submitted.

2. Mitigation Measure: Condition II.A.1. - Plan review letter.

Monitoring Program: The Environmental Planning Section of the Planning Department will deny the application for a building permit until this letter is received.

3. Mitigation Measure: Condition III. - Inspection letter from soil engineer.

EXHIBIT J

Monitoring Program: Project Planner will enter into the computer that this is a requirement prior to pouring the concrete for the foundation. Building Inspector will not approve the foundation inspection without this letter submitted from applicant.

4. Mitigation Measure: Condition IV.A. - Final inspection letter from soil engineer.

Monitoring Program: Project Planner will enter into the computer that the inspection letter from the geotechnical engineer is required to be submitted before final clearance for occupancy. The Building Inspector will not give the buildings their final inspection until this is complete.

5. Mitigation Measure: Condition II.A.2. - Revisions to grading plan.

Monitoring Program - The Resource Planner that review and approves the grading permit application and grading plans will require that this has been completed before issuance of the grading permit.

6. Mitigation Measure: Condition IV.B. - Minimize visual impact of the antenna pole.

Monitoring Program: The project planner will enter a hold on the final of the building permit and conduct an inspection of the site to ensure these items have been completed by the applicant.

7. Mitigation Measure: Condition IV.C. - Fire protection improvements.

Monitoring Program: The Bonny Doon Fire Department must inspect the building and the access road prior to final of the buildings to ensure the sprinkler system has been installed and road improved to meet the standards required in the permit conditions.



COUNTY OF SANTA CRUZ Planning Department

COMMERCIAL DEVELOPMENT PERMIT AMENDMENT

Owner Fred Jensen
Address 12500 Empire Grade Road
Santa Cruz

Permit Number 02-0522
Parcel Number(s) 080-021-27

PROJECT DESCRIPTION AND LOCATION

Permit to co-locate a wireless services site by mounting six panel antennas onto an existing monopole and installing an equipment cabinet. Requires an Amendment to Commercial Development Permit 93-0239, Biotic Pre-Site, and Archeological Site Review. Property located on the east side of Empire Grade Road, 1.4 miles north from Alba Road, at 12500 Empire Grade Road.

SUBJECT TO ATTACHED CONDITIONS.

Approval Date: 2/6/04
Exp. Date (if not exercised): 2/20/06
Denied by: _____

Effective Date: 2/20/04
Coastal Appeal Exp. Date: N/A
Denial Date: _____

_____ This project requires a Coastal Zone Permit which is not appealable to the California Coastal Commission. It may be appealed to the Planning Commission, The appeal must be filed within 14 calendar days of action by the decision body.

_____ This project requires a Coastal Zone Permit, the approval of which is appealable to the California Coastal Commission. (Grounds for appeal are listed in the County Code Section 13.20.110.) The appeal must be filed with the Coastal Commission within 10 business days of receipt by the Coastal Commission of notice of local action, Approval or denial of the Coastal Zone Permit is appealable. The appeal must be filed within 14 calendar days of action by the decision body.

This permit cannot be exercised until after the Coastal Commission appeal period. That appeal period ends on the above indicated date, Permittee is to contact Coastal staff at the end of the above appeal period prior to commencing any work.

A Building Permit must be obtained (if required) and construction must be initiated prior to the expiration date in order to exercise this permit. **THIS PERMIT IS NOT A BUILDING PERMIT.**

By signing this permit below, the owner agrees to accept the terms and conditions of this permit and to accept responsibility for payment of the County's costs for inspections and all other actions related to noncompliance with the permit conditions. This permit shall be null and void in the absence of the owner's signature below.

Jason Osborne
Signature of Owner/Agent Jason Osborne

2/6/04
Date

Jack Nelson
Staff Planner

2-6-04
Date

Distribution: Applicant. File. Clerical

EXHIBIT K

CONDITIONS OF APPROVAL

Exhibit A Project Plans by CH2MHILL, revised dated 9-25-02.

- I. This permit authorizes the construction and operation of the co-located wireless communications facility as shown in Exhibit A. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
 - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
 - B. Obtain a Building Permit from the Santa Cruz County Building Official.
 - C. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder) within 30 days of the approval date on this permit.
 - D. Obtain and maintain all required licenses and approvals from the California Public Utilities Commission and the Federal Communications Commission.

- II.
 - A. Before a Building Permit application may be filed for this project, the existing facility operators, applicant, or property owner must complete the visual screening plantings that were required as a condition of Permit 93-0239. Before planting, final selection of native species and locations must be: (1) consistent with the intended visual screening outcome under Permit 93-0239; (2) not unfavorable to growing conditions for the nearby Christmas trees, except to an extent that may be necessary to achieve the visual screening; and (3) documented on an updated Landscaping Plan, for any revisions to the previously approved plan. Any such revisions must first obtain approval from the Zoning Administrator at the County Planning Department. With or without any revisions, a Landscape Maintenance Plan shall be provided to County Planning for review and approval, for maintaining the plantings until established and for the life of the monopole facility. The designated party responsible for maintenance (i.e., facility operator, property owner, etc.) shall be identified in writing in the maintenance plan.
 - B. Before a Building Permit application may be filed for this project, the primary leaseholder (presently Crown Castle International) operating the wireless communications facility at the subject property, or the property owner, shall return to the County a signed replacement copy of the original Commercial Development Permit 93-0239, accepting the terms and conditions of permit 93-0239.

- III. Prior to issuance of a Building Permit the applicant/owner shall:
 - A. Submit ~~Final~~ Architectural Plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. The final plans shall

include the following additional information:

1. Identify finish of exterior materials and color of antennas and equipment cabinets (to be dark green to match existing facility). The antennas shall have a non-reflective finish.
 2. Drainage and Erosion Control Plan. Site-specific measures shall be provided in the plans, to correct and control the ~~minor~~ rill erosion and slope erosion occurring on the sloping east and south sides of the monopole compound.
 3. Details showing compliance with fire department requirements.
- B. Obtain an Environmental Health Clearance for this project if **any** hazardous materials, such as batteries, are utilized or generated on site from the County Department of Environmental Health Services.
- C. Meet all requirements and pay any applicable plan check fee to the Fire Protection District.
- D. To guarantee that the monopole remains in good visual condition and to ensure the continued provision of mitigation of the visual impact of the wireless communications facility, the applicant shall submit a maintenance program prior to building permit issuance which includes a signed maintenance contract with the company that provides the exterior **finish**, for **annual** visual inspections and follow-up maintenance as needed.
- IV. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the **applicant/owner** must meet the following conditions:
- A. All site improvements shown on the **final** approved Building Permit plans shall be installed.
 - B. All inspections required by the building permit **shall** be completed to the satisfaction of the County Building Official.
 - C. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from ~~all further~~ site excavation and notify the Sheriff-Coroner if the discovery contains **human** remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.
- V. Operational Conditions

EXHIBIT K

- A. In the event that **future** County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, **up** to and including permit revocation.
 - B. The applicant shall agree in writing that where future technological advances would allow for reduced visual impacts resulting from the proposed telecommunications facility, the applicant agrees to make those modifications which would allow for the reduced visual impact of the proposed facility as part of the normal replacement schedule. If, in the future, the facility is no longer needed, the applicant agrees to abandon the facility and be responsible for the removal of all related structures and the restoration of the site as needed,
 - C. Any modification in the 'type of equipment shall be reviewed and acted on by Planning Department staff. The County may deny or modify conditions of permit approval at this time, or the Planning Director may refer it for public hearing before the Zoning Administrator.
 - D. All noise shall be contained on the property. The maximum exterior noise level at the property line shall be 60 dBL dn, consistent with General Plan Policy 6.9.1.
 - E. All associated site, building, and security lighting shall be directed onto the lease site and away from the scenic corridor and adjacent properties. Light sources shall not be visible from adjacent properties. Light sources shall be shielded by landscaping, structures, **fixture** design, or other physical means. Building and security lighting shall be **integrated** into building design.
 - F. The applicant shall meet the requirements of County Code Section 13.10.659 pertaining to monitoring of Non-ionizing Electromagnetic Radiation (NIER) levels. Within 90 days after the commencement of normal operations, the applicant shall submit a report documenting NIER measurements at the facility site, consistent with the reporting requirements adopted in County Code. Failed compliance shall be grounds for review of this permit.
- VI.. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
- A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If

COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.

- B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
1. COUNTY bears its own attorney's fees and costs; and
 2. COUNTY defends the action in good faith.
- C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor(s) in interest, transferee(s), and assign(s) of the applicant.

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

PLEASE NOTE: THIS PERMIT EXPIRES TWO YEARS FROM THE EFFECTIVE DATE UNLESS YOU OBTAIN THE REQUIRED PERMITS AND COMMENCE CONSTRUCTION.

Approval Date: February 6, 2003

Effective Date: February 20, 2003

Expiration Date: February 20, 2005

Don Bussey
Don Bussey
Deputy Zoning Administrator'

Jack Nelson
Jack Nelson
Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.