



## Staff Report to the Zoning Administrator

Application Number: **131042**

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**Applicant:** Aaron DeLaO, On Air, Inc. (for Verizon)

**Agenda Date:** July 19, 2013

**Owner:** Christopher and Nancy Currier  
**APN:** 081-084-05

**Agenda Item #:** 2  
**Time:** After 9:00 a.m.

**Project Description:** Proposal to construct a new 50-ft. tall Verizon "monopine" faux-tree cell tower pole, with 9 panel antennas hidden within the faux tree branches, and 7 outdoor equipment cabinets, a 30 kilowatt stand-by generator, and associated utility runs, within a 30'x40' lease area surrounded by a 6-ft. tall cedar picket fence.

**Location:** Project is located on a vacant parcel on the north side of Big Basin Way (State Hwy. 236) at 13260 Big Basin Way, 1.5 blocks west of its intersection with State Hwy. 9, in central Boulder Creek.

**Supervisory District:** 5th District (District Supervisor: Bruce McPherson)

**Permits Required:** Level 5 Commercial Development Permit

**Technical Reviews:** Soils Report Review (REV131011)

### Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 131042, based on the attached findings and conditions.

### Exhibits

- |   |   |
|---|---|
| A. Categorical Exemption (CEQA determination) | F. Assessor's, Location, Zoning and General Plan Maps |
| B. Findings                                   | G. Alternatives Analysis                              |
| C. Conditions                                 | H. RF Emissions Report                                |
| D. Project plans                              | I. Correspondence                                     |
| E. Photo Simulations                          |   |

### Parcel Information

Parcel Size:	23,920 sq. ft. (0.55 acres)
Existing Land Use - Parcel:	Vacant
Existing Land Use - Surrounding:	Commercial
Project Access:	Hwy. 236 (Big Basin Way)
Planning Area:	SLV
GP Land Use Designation:	C-S (Service Commercial)
Zone District:	C-4 (Commercial Services)
Coastal Zone:	<input type="checkbox"/> Inside <input checked="" type="checkbox"/> Outside
Appealable to Calif. Coastal Comm.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

### Environmental Information

Geologic Hazards:	Not mapped/no physical evidence on site
Soils:	Permeable Hydrogroup B (Ben Lomond Sandy Loam - #110)
Fire Hazard:	Not a mapped constraint
Slopes:	N/A (flat site)
Env. Sen. Habitat:	Not mapped/no physical evidence on site
Grading:	No grading proposed
Tree Removal:	No trees proposed to be removed
Scenic:	Hwy. 236 is a mapped highway
Drainage:	Existing drainage adequate
Archeology:	Mapped Archeological Resource Area

### Services Information

Urban/Rural Services Line:	<input checked="" type="checkbox"/> Inside <input type="checkbox"/> Outside
Water Supply:	SLV Water District
Sewage Disposal:	CSA 12
Fire District:	Boulder Creek Fire Protection District
Drainage District:	Flood Control Zone 8

### History

The vacant commercially-zoned (C-4) site was approved in 1999 for development of a two-story, 12,124 sq. ft. commercial structure (under permit #98-0616) that was to house an auto repair shop, an auto parts store, a copy store and other retail on the first floor, with offices on the second. However it was never built and the Building Permit (BP# 139765) went void.

### Project Setting

The project site is located in central Boulder Creek, on a level 23,921 sq. ft. vacant parcel that comprises almost the entire block, bounded by Big Basin Way (State Hwy. 236) on the south, Pine Street on the east, Oak Street on the west, and Lorenzo Street on the north. The subject parcel is surrounded on all four sides by commercially-zoned parcels (either C-4 or C-2) that contain a variety of commercial uses typical for central Boulder Creek. The nearest

residentially-zoned parcel is approximately 230 feet from the base of the proposed “monopine” cell tower, and there are only two residentially zoned parcels within 300-feet of the base of the proposed tower.

### **Zoning & General Plan Consistency**

The subject property is a parcel of approximately 23,921 square feet, located in the C-4 (Commercial Services) zone district, a designation which allows Wireless Communications Facility uses. The proposed Verizon “monopine” cell tower is a principal permitted use within the zone district, and the zoning is consistent with the site's (C-S) Service Commercial/Light Industrial General Plan designation. The proposed height of the “monopine” is 50-feet, well below the allowed 85-foot height limit for cell towers in the C-4 zone district.

To minimize visual impacts to surrounding residential uses, County Code Subsection 13.10.663(A)(9) requires the base of any new freestanding telecommunications tower be set back from the property line of any residentially zoned parcel a distance equal to five times the height of the tower, or a minimum of 300 feet, whichever is greater. Subsection 13.10.663(A)(9) goes on to state that this requirement may be waived by the decision making body if the applicant can prove that the wireless communication facility will be camouflaged or otherwise made inconspicuous such that visual impacts are not created. The applicant has provided a photo simulation that shows that there will be no visual impact to the 2 residential parcels that lie within 300-feet of the base of the proposed “monopine”.

### **Design Review**

The proposed “monopine” WCF complies with the requirements of the County Design Review Ordinance, in that the proposed project will incorporate architectural design features to reduce the visual impact of the proposed development on surrounding land uses and the natural landscape. The proposed faux-tree “monopine” should blend in very well with an adjacent grove of mature redwoods, making the WCF inconspicuous to the extent possible. The 30' x 40' lease area, including the towers and the 10 proposed ground-level equipment cabinets and 30kw emergency back-up generator, will be enclosed, and screened from public view, by a 6-foot high cedar plank fence, that will also blend in well with the site and its surroundings.

### **Visual Analysis**

The project site is located on Big Basin Way (State Highway 236), a designated scenic corridor per General Plan policy 5.10.10. The proposed faux-tree “monopine” telecommunication tower and ground-level equipment cabinets/generator will be camouflaged or hidden to the extent feasible, and will blend in with the existing adjacent grove of redwood trees, and thus will not significantly impact views from this scenic corridor.

### **Radio Frequency Emissions**

A radio frequency (RF) radiation emissions calculation report has been prepared for this project by a qualified consulting engineer (with Hammett & Edison). The proposed facility is calculated to result in a maximum ambient RF level of no more than 1.6% of the applicable FCC public exposure limit at ground level, and 3.0% of that limit at the second floor level of the nearest 2-

story structure.

### **Environmental Review**

Staff has determined that the proposed project is Categorically Exempt from the requirements of the California Environmental Quality Act (CEQA) because it qualifies as "New Construction or Conversion of a Small Structure" (Class 3, Section 15303). The CEQA Categorical Exemption form is attached as Exhibit D.

### **Conclusion**

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

### **Staff Recommendation**

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- **APPROVAL** of Application Number 131042, based on the attached findings and conditions.

**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](http://www.co.santa-cruz.ca.us)**

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# 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: 131042

Assessor Parcel Number: 081-084-05

Project Location: 13260 Big Basin Way (State Hwy. 236), Boulder Creek, CA

**Project Description:** Construction of a "monopine" cell tower and related ground mounted equipment

**Person or Agency Proposing Project:** Aaron DeLaO, On Air, Inc. (for Verizon)

**Contact Phone Number:** (916) 792-8686

- 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.   X   **Categorical Exemption**

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

**F. Reasons why the project is exempt:**

Construction of a camouflaged "monopine" faux tree WCF and related ground mounted equipment is not anticipated to generate any environmental impacts.

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

\_\_\_\_\_  
Frank Barron, Project Planner

Date: \_\_\_\_\_

**EXHIBIT A**

## 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, in that the project is located in an area designated for commercial uses and is not encumbered by physical constraints to development. Construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources. The maximum ambient cumulative RF radiation levels at ground level due to nearby existing wireless communications facilities in addition to peak operation of the proposed facility are calculated to be no more than 3.0 percent of the most restrictive applicable (FCC) limit, therefore the project will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public. The proposed "monopine" cell tower and related ground mounted equipment 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 these amenities.

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.

This finding can be made, in that the proposed location of the "monopine" cell tower and related ground mounted equipment, and the conditions under which it would be operated or maintained, will be consistent with all pertinent County ordinances and the purpose of the C-4 (Service Commercial) zone district as the primary use of the property will be one "monopine" cell tower and related ground mounted equipment that meets all current site standards for the zone district.

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.

This finding can be made, in that the proposed cell tower use is consistent with the use and density requirements specified for the Service Commercial (C-S) land use designation in the County General Plan (GP).

The proposed "monopine" cell tower and related ground mounted equipment will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties, and meets all current site and development standards for the zone district as specified in GP Policies 8.5.2 (Commercial Compatibility with Other Uses) and 8.5.3 (Areas with Unique Design Guidelines), in that the "monopine" cell tower and related ground mounted equipment will not adversely shade adjacent properties, will blend in with the adjacent redwood grove, and will meet current setbacks for the zone district.

The proposed "monopine" cell tower and related ground mounted equipment will be properly proportioned to the parcel size and the character of the neighborhood as specified in General

Plan Policy 8.6.1 (Maintaining a Relationship Between Structure and Parcel Sizes), in that the proposed “monopine” cell tower and related ground mounted equipment will comply with the site standards for the C-4 zone district (including setbacks, lot coverage, floor area ratio, height, and number of stories) and will result in a structure consistent with a design that could be approved on any similarly sized lot in the vicinity.

A specific plan (the Boulder Creek Town Plan) has been adopted for this portion of the County. The proposed development is not inconsistent with that plan because the project is a commercial use that will be located in commercial zone district.

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 “monopine” cell tower and related ground mounted equipment is to be constructed on an existing undeveloped lot. There is no additional traffic expected to be generated by the proposed project, and thus the project will not adversely impact existing roads or 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, in that the proposed structure is located in a mixed neighborhood containing a variety of architectural styles, and the proposed “monopine” cell tower and related ground mounted equipment is not inconsistent with the land use intensity and density of the neighborhood.

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 “monopine” cell tower and related ground mounted equipment will be of an appropriate scale and type of design that will not detract from the aesthetic qualities of the surrounding properties and will not reduce or visually impact available open space in the surrounding area. With the proposed “monopine” stealthing, the cell tower will blend in with the adjacent redwoods and will be almost completely unnoticeable from a distance of about one block or greater, and relatively unnoticeable from closer distances.

## 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 “monopine” cell tower and related ground mounted equipment will be located in downtown Boulder Creek, adjacent to a stand of large redwoods that will dwarf the cell tower. With the “monopine” stealthing the cell tower will blend in with the redwoods and will be almost completely unnoticeable from a distance of about one block or greater, and relatively unnoticeable from closer distances.

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, in that the site is adequate for the development of the proposed wireless communications facility (WCF) because it is located within a C-4 zone district, one of the zoning districts in which WCFs are a principally permitted use.

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.

This finding can be made, in that the subject property is currently vacant except for being used for parking and several temporary storage containers. The parcel is in compliance with the requirements of the zone district and General Plan designation, in which it is located. No zoning violation abatement fees are applicable to the subject property.

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

This finding can be made, in that the proposed wireless communications facility will be located on a wireless communications tower, which will be approximately 50 feet in height, and this elevation is too low to interfere with an 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 at ground level due to the existing wireless communications facilities and the proposed operation are calculated to be no more than 3.0 percent of the most restrictive applicable limit.

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

This finding can be made, in that the proposed project site is not located within the coastal zone.

## Conditions of Approval

Exhibit D: Project plans, 7 sheets, prepared by Foresight, dated 4/25/13

- I. This permit authorizes the construction of a "monopine" cell tower and related ground mounted equipment. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. 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.
    1. Any outstanding balance due to the Planning Department must be paid prior to making a Building Permit application. Applications for Building Permits will not be accepted or processed while there is an outstanding balance due.
  - C. Obtain a Grading Permit from the Santa Cruz County Building Official.
  - D. Obtain an Encroachment Permit from the Department of Public Works for all off-site work performed in the County road right-of-way.
  - E. Submit a Hazardous Materials Management Plan for review and approval by the County Department of Environmental Health Services.
  - F. Obtain approval from the California Public Utilities Commission and the Federal Communications Commission to install and operate this facility.
  - G. 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 from the effective date of this permit.
- II. 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 "D" on file with the Planning Department. Any changes from the approved Exhibit "D" 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 color and finish of exterior materials for Planning Department approval. All colors and materials must be non-reflective and blend with the existing infrastructure and/ or provide camouflage. All color boards must be no larger than 8.5"w x 11"h x 1/16"
  2. Identify the height and material of fencing surrounding the lease area for Planning Department approval.
  3. Grading, drainage, and erosion control plans.
  4. All new electric and telecommunications lines shall be placed underground.
  5. Details showing compliance with fire department requirements, including all requirements of the Urban Wildland Intermix Code, if applicable.
  6. Construction details of the access pathway/ road and the method of installation for the equipment platform. Tree protection measures must be clearly delineated on the plans for both the access pathway/road and the construction of the equipment platform.
  7. A lighting plan. All lighting must be manual and must not be visible from neighboring properties.
- B. Submit a Hazardous Materials Management Plan for review and approval by the County Department of Environmental Health Services, if required.
- C. Submit a maintenance program, to guarantee that the camouflaged tower remains in good visual condition and to ensure the continued provision of mitigation of the visual impact of the wireless communications facility, which includes the following:
1. A signed contract for maintenance with the company that provides the exterior finish and camouflage materials, for annual visual inspection and follow up repair, painting, and resurfacing as necessary.
- D. 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.
- E. Meet all requirements of and pay Zone 8 drainage fees to the County Department of Public Works, Stormwater Management. Drainage fees will be assessed on the net increase in impervious area.
- F. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services, as applicable.



- G. Meet all requirements and pay any applicable plan check fee of the Boulder Creek Fire Protection District.
  - H. Submit 3 copies of a soils report prepared and stamped by a licensed Geotechnical Engineer.
- 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. The project must comply with all recommendations of the approved soils report.
  - D. A Hazardous Materials Management Plan shall be approved by the County Department of Environmental Health Services.
  - E. 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. The wireless communication facility may not be connected to a power source or operated until a final inspection and clearance from the Santa Cruz County Planning Department has been received.
  - C. The use of temporary generators to power the wireless communication facility is not allowed.
  - D. All noise generated from the approved use shall be contained on the property.

- E. The exterior finish and materials of the wireless communication facility must be maintained on an annual basis to continue to blend with the existing trees and utilities infrastructure. Additional paint and/or replacement materials shall be installed as necessary to blend the wireless communication facility with the existing trees and utilities infrastructure to maintain visual appearance as approved.
- F. The existing vegetative screening of the project site and facilities must be maintained throughout the duration of the approved use. Tree removals or excessive pruning which reduce the visual screening of the project site are not allowed. If visual screening is reduced due to natural causes, replacement trees will be required which provide adequate visual screening of the project site and facilities.
- G. 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.
- H. If, in the future, the pole based utilities are relocated underground at this location, 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.
- 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, 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 the modification or amend the approved conditions at that time, or the Planning Director may refer it for public hearing before the Zoning Administrator.
- L. The access road shall be permanently maintained to allow access to emergency vehicles at all times. Any obstruction of the access road, as a result of neglect or lack of maintenance, will be in violation of the conditions of this permit.
- M. The equipment cabinet area must be locked at all times except when authorized personnel are present. The antennas must not be accessible to the public.
- N. All site, building, security and landscape lighting shall be directed onto the lease site and away from adjacent properties. Light sources shall not be visible from adjacent properties. Building and security lighting shall be integrated into the building design and shall be operated with a manual on/off switch. The site shall be unlit except when authorized personnel are present at night.
- O. Transfer of Ownership: In the event that the original permittee sells its interest in the permitted wireless communications facility, the succeeding carrier shall assume all responsibilities concerning the project and shall be held responsible to the County for maintaining consistency with all project conditions of approval, including proof of liability insurance. Within 30-days of a transfer of ownership, the succeeding carrier shall provide a new contact name to the Planning Department.
- P. 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.
- 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.
- E. Within 30 days of the issuance of this development approval, the Development Approval Holder shall record in the office of the Santa Cruz County Recorder an agreement which incorporates the provisions of this condition, or this development approval shall become null and void.

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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 three years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.**

Approval Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

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Wanda Williams  
Deputy Zoning Administrator



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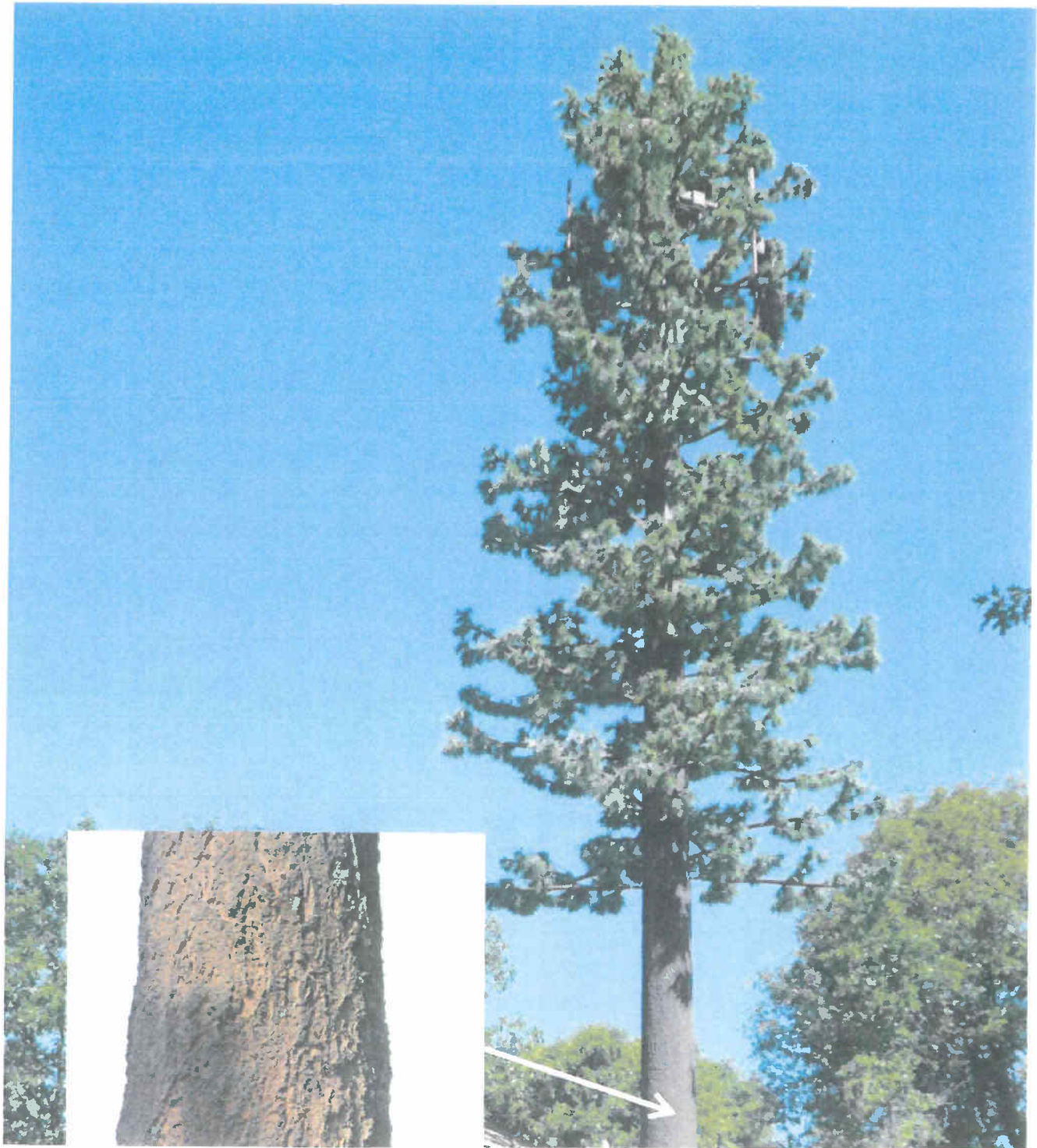
Frank Barron  
Project Planner

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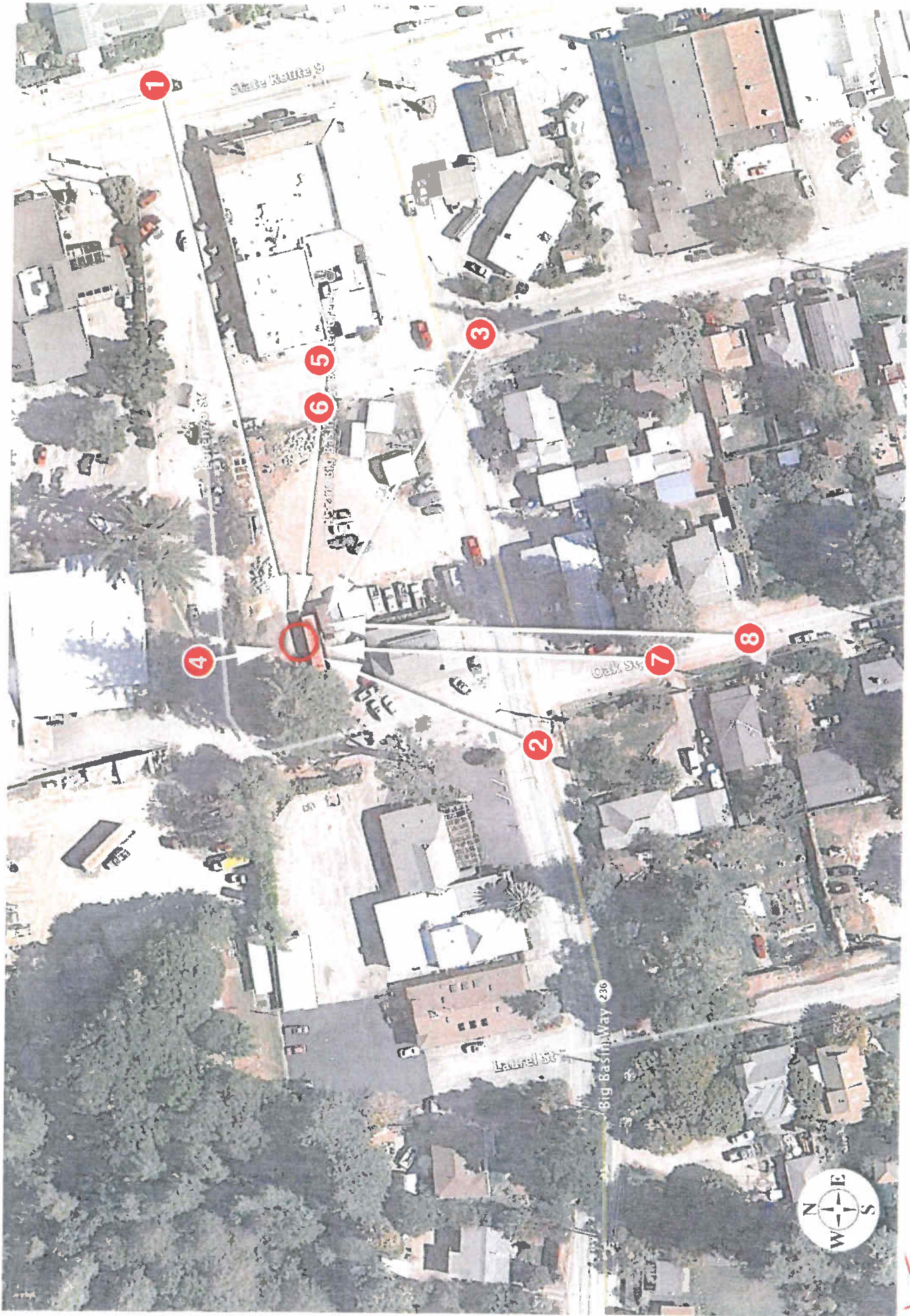
Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.



**Photo of Typical Monopine Branches and Bark**







Aerial Map

Applied Imagination 510 914-0500

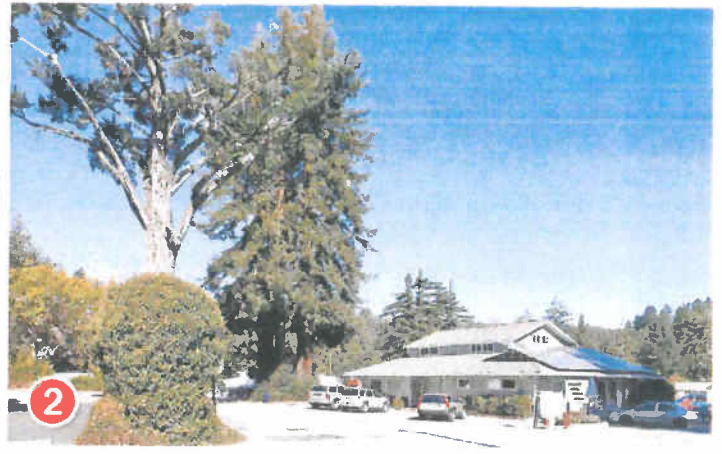
Hwy 9 & Hwy 236 Site # 250378

13260 Big Basin Way  
Boulder Creek, CA

verizonwireless

3/15/13

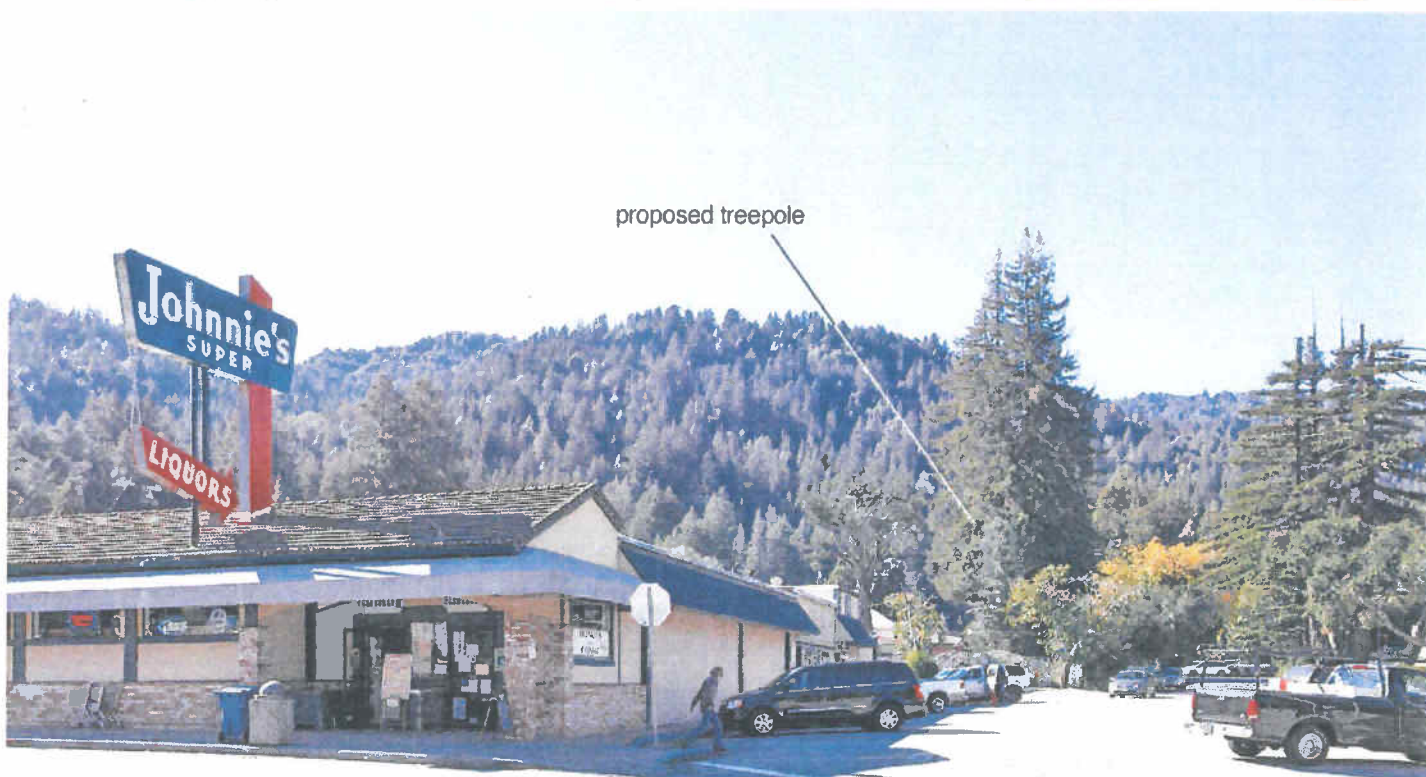








Existing



Proposed



Hwy 9 & Hwy 236

Site # 250378

Looking West from Hwy 9

11/12/12

13260 Big Basin Way  
Boulder Creek, CA

View #1

Applied Imagination 510.514.0500





Existing



proposed treepole

Proposed



Hwy 9 & Hwy 236

Site # 250378

Looking Northeast from Big Basin Way

11/12/12

13260 Big Basin Way  
Boulder Creek, CA

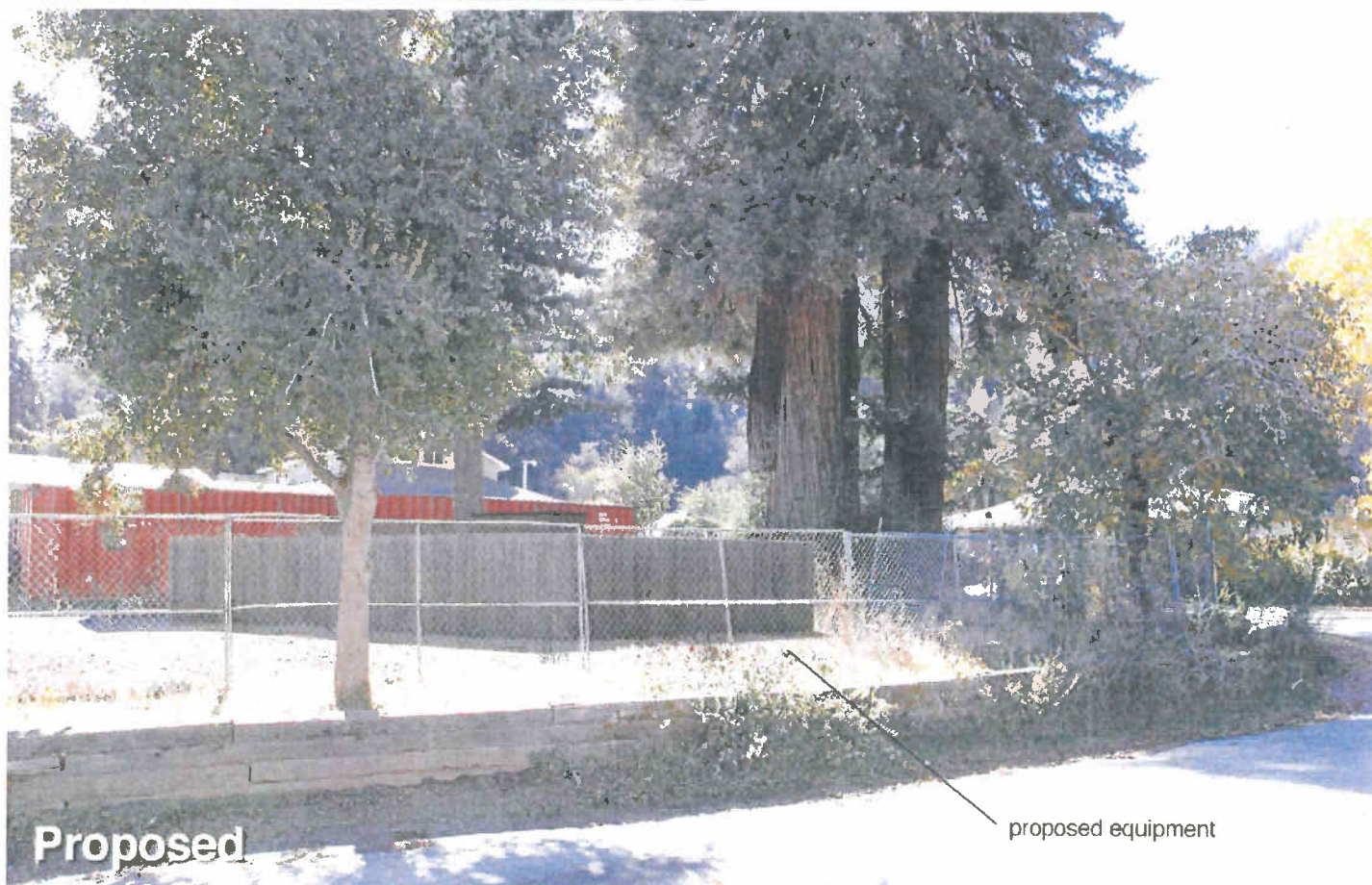
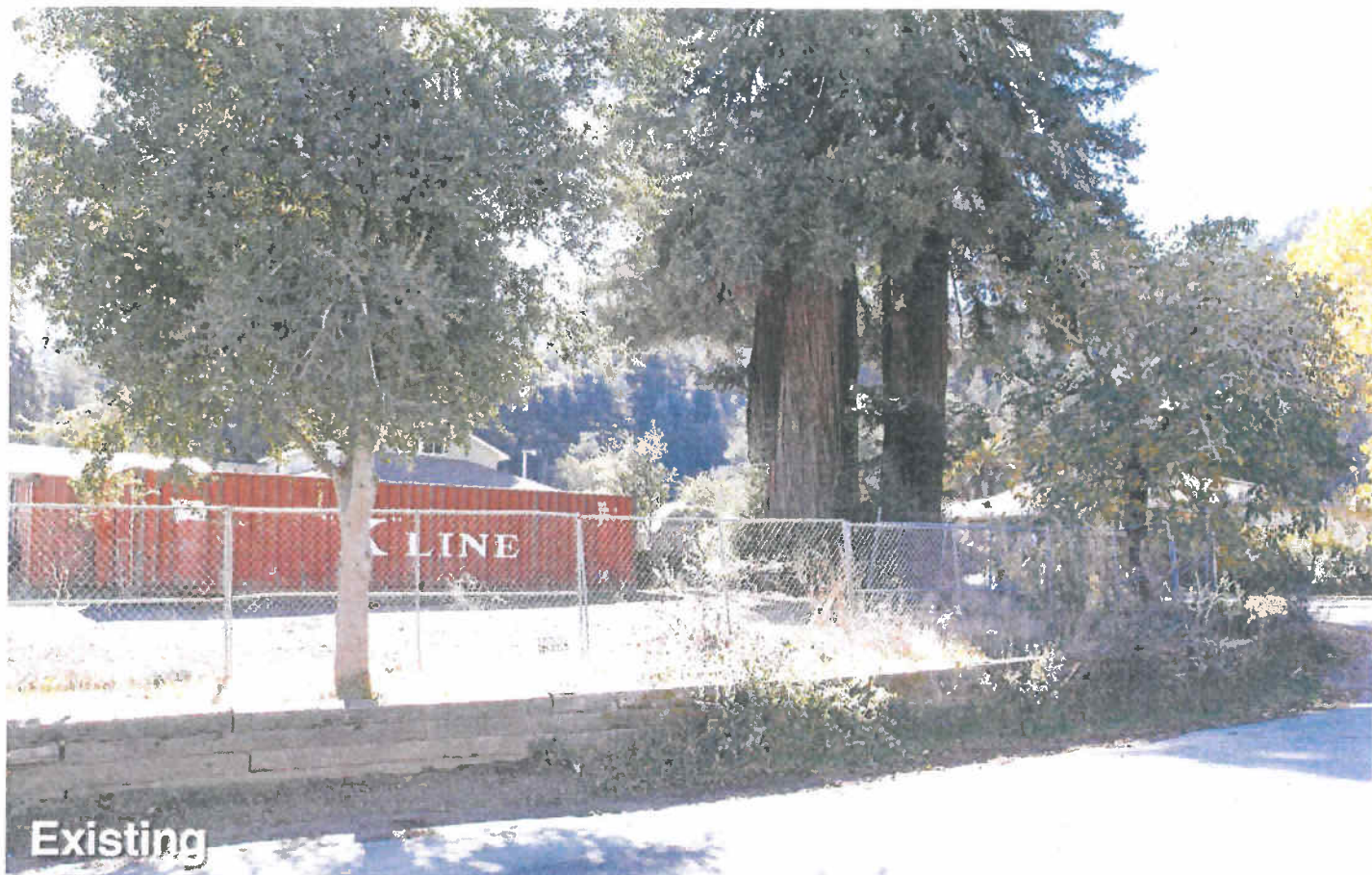
View #2

Applied Imagination 510.914.0500





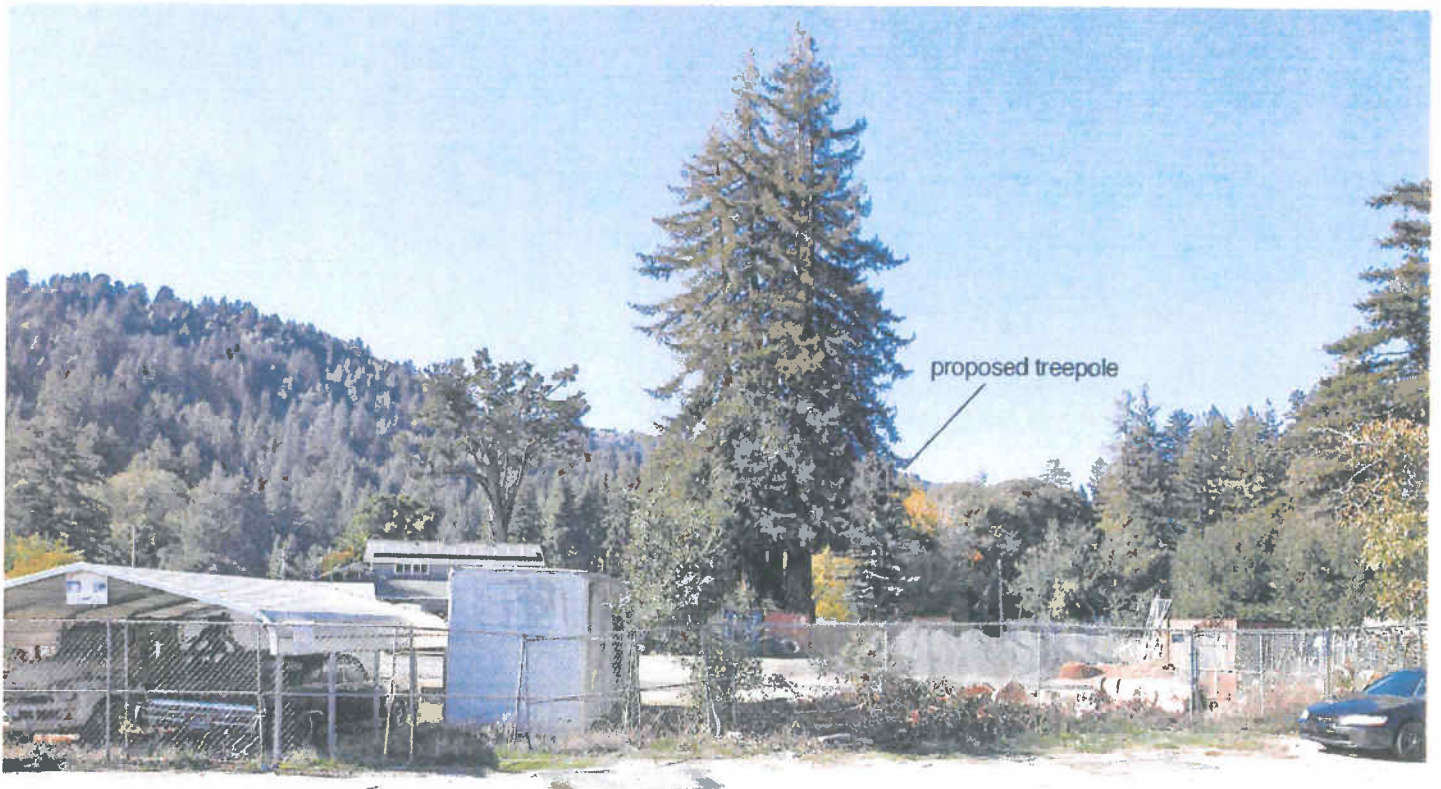






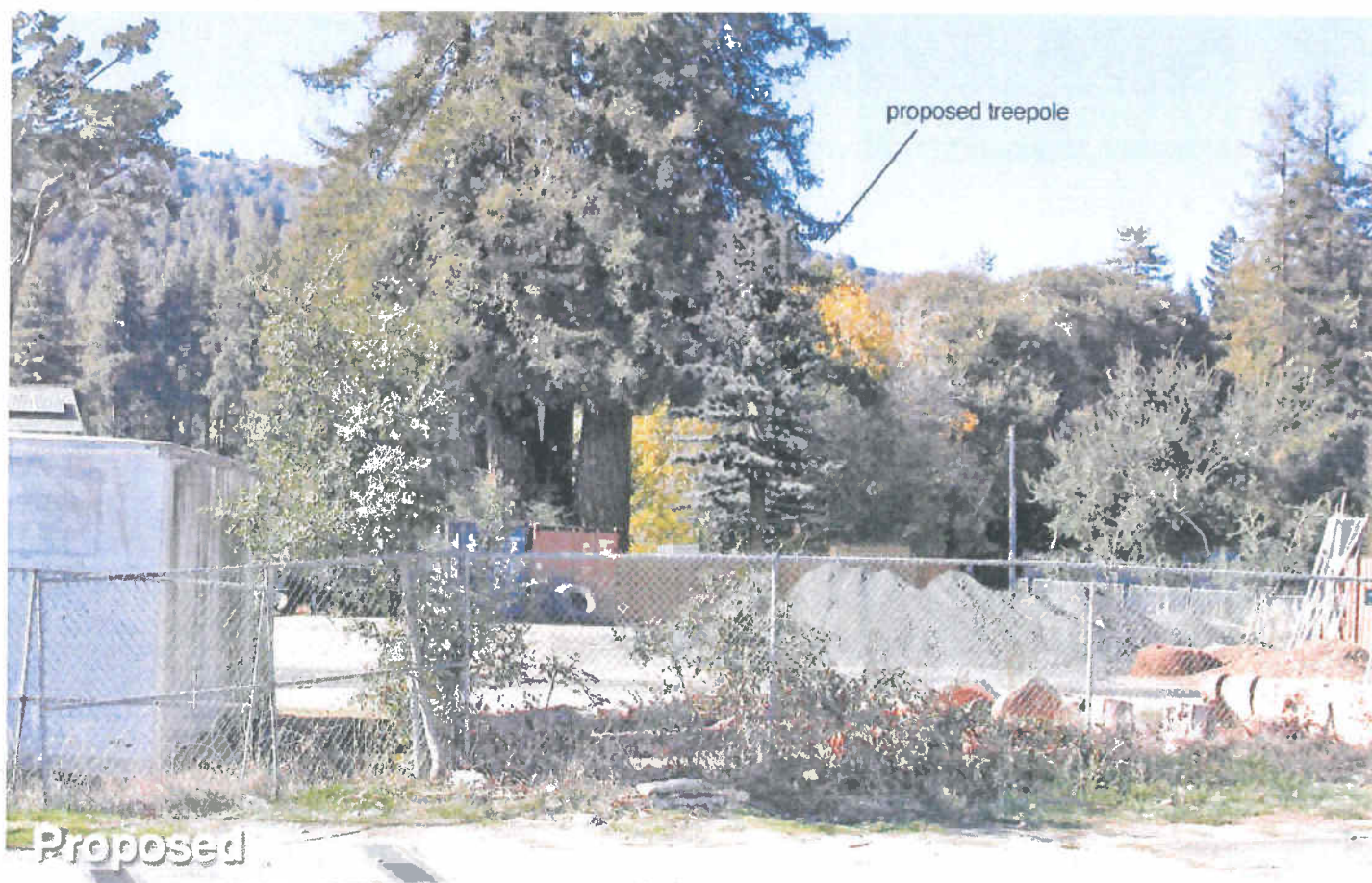


Existing

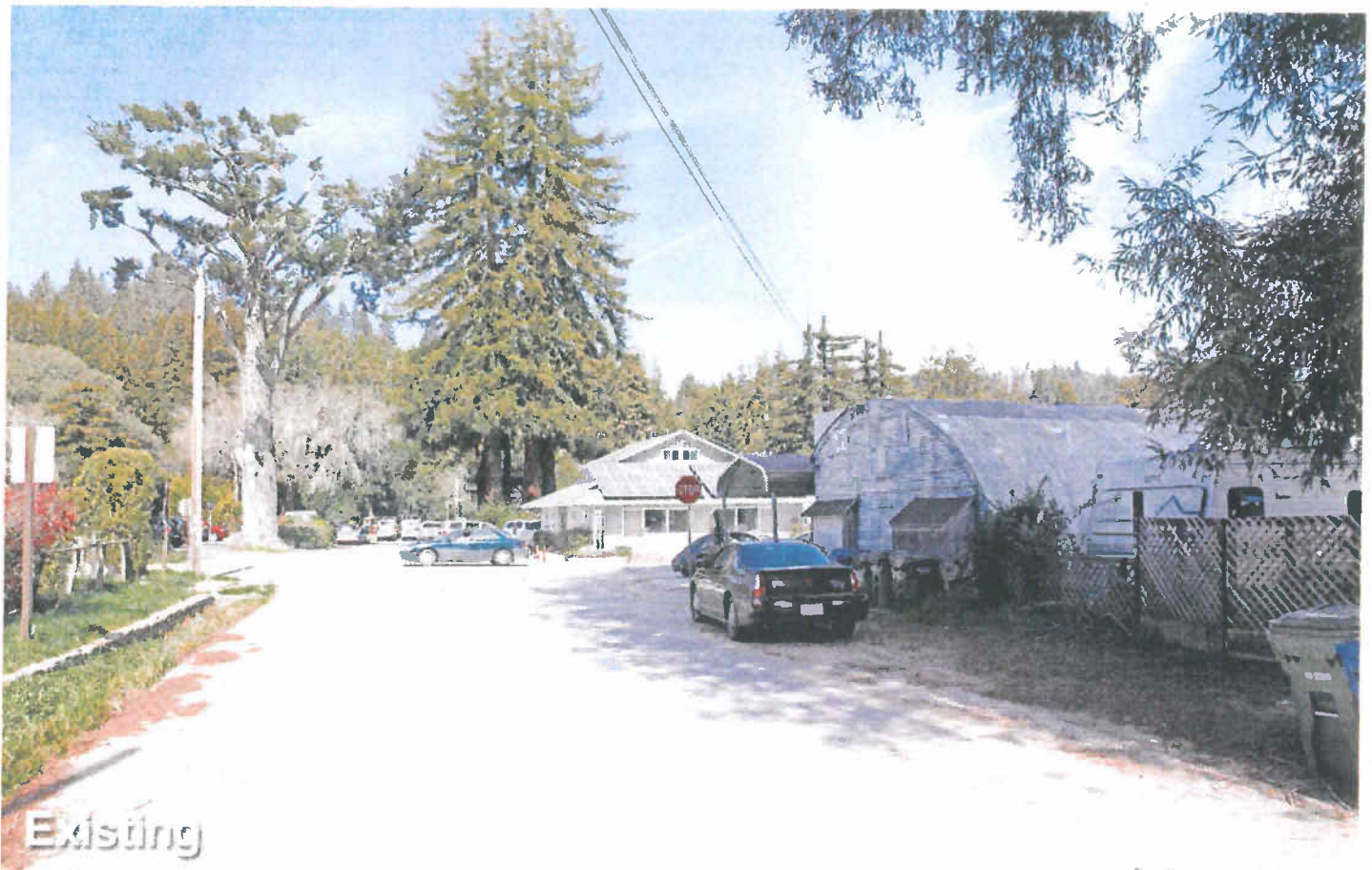


Proposed









Existing



Proposed







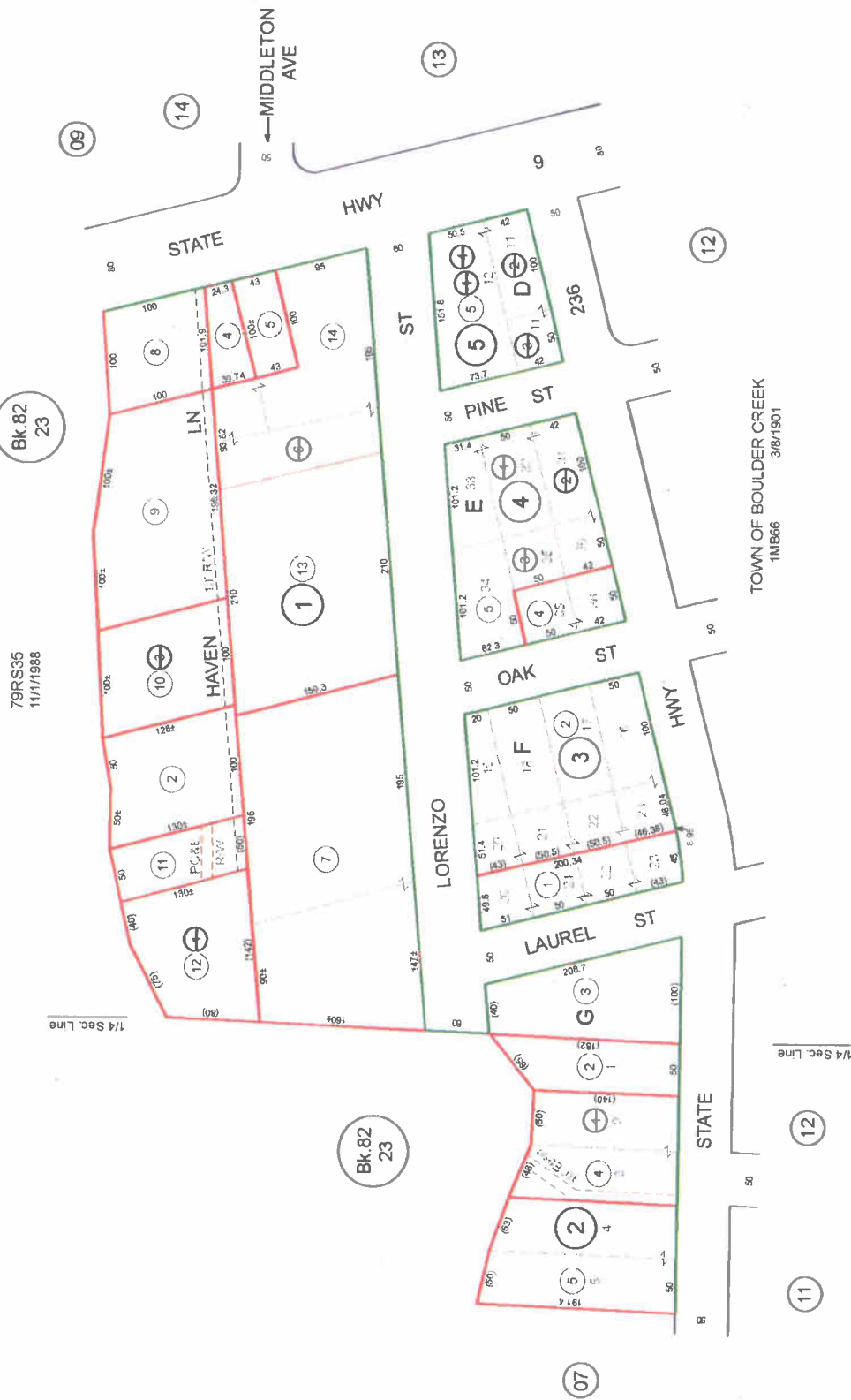
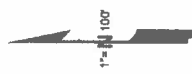
# FOR TAX PURPOSES ONLY

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POR. N. 1/2, SEC. 30, T.9S., R.2W., M.D.B. & M.

Tax Area Code  
90-101

81-08



Electronically Redrawn 8/22/00 mm  
Rev 5/23/03 00 13048105 comb 4.05  
Rev 8/7/08 mc (St name, Haven Ln.)

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





Assessor's Map No. 81-08  
County of Santa Cruz, Calif  
Aug., 2000



# Location Map



## LEGEND

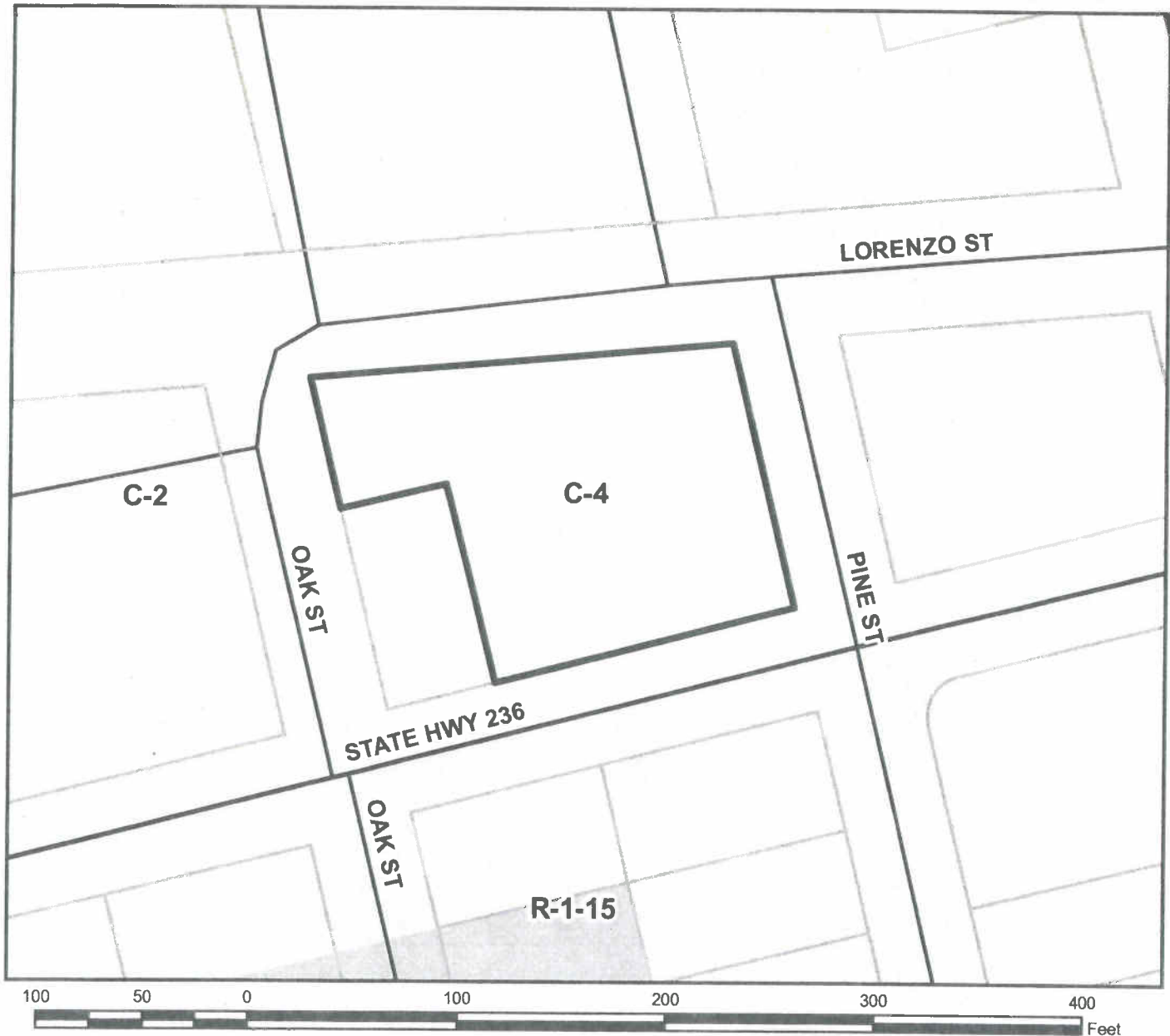
-  APN: 081-084-05
-  Assessors Parcels
-  Streets
-  State Highways



Map Created by  
County of Santa Cruz  
Planning Department  
February 2013



# Zoning Map



## LEGEND



APN: 081-084-05



Assessors Parcels



Streets

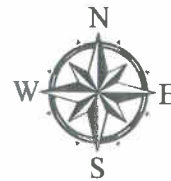


State Highways

COMMERCIAL-SERVICE

COMMERCIAL-COMMUNITY

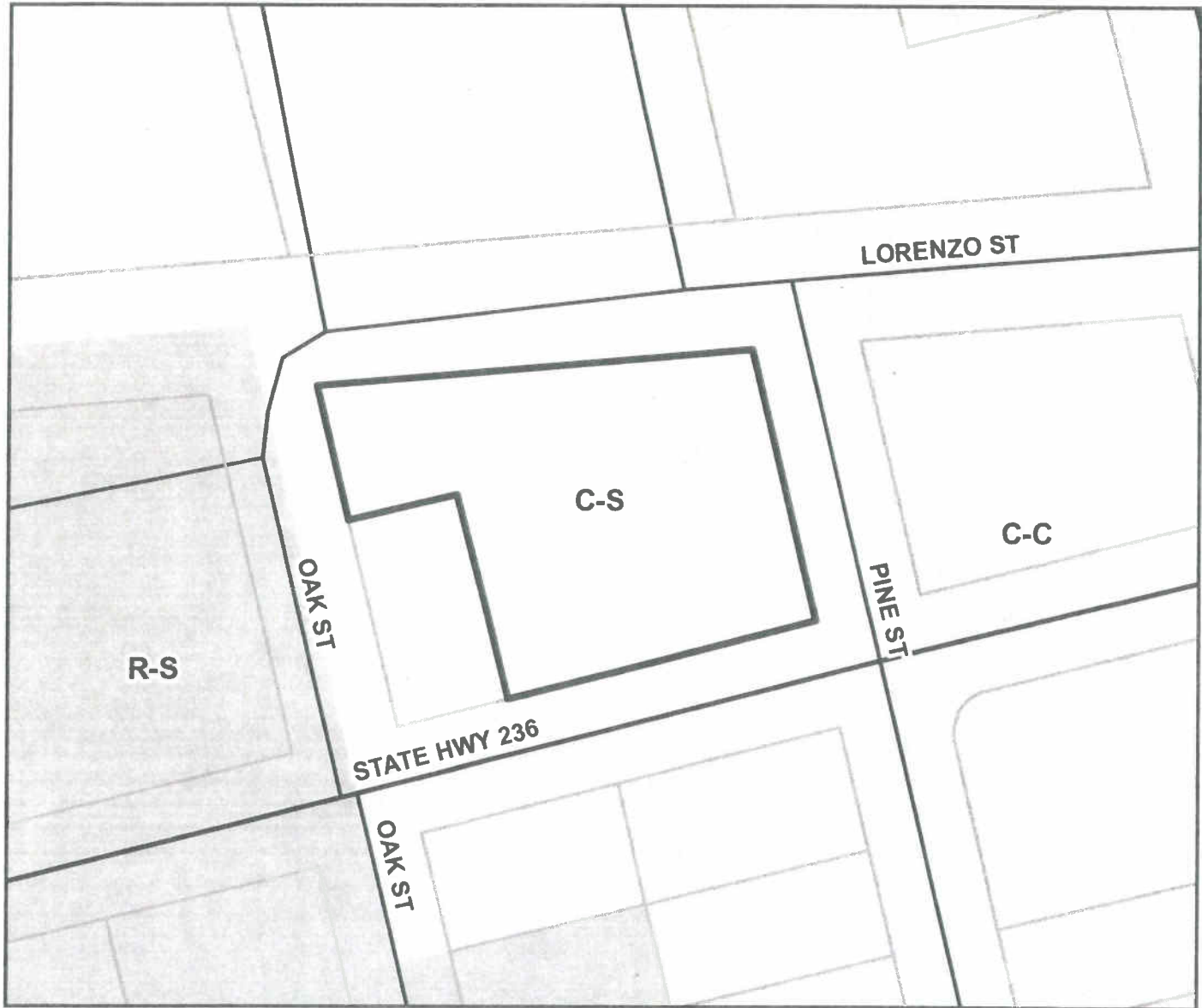
RESIDENTIAL-SINGLE FAMILY










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County of Santa Cruz  
Planning Department  
February 2013

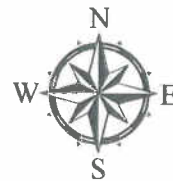


# General Plan Designation Map



## LEGEND

-  APN: 081-084-05
-  Assessors Parcels
-  Streets
-  State Highways
-  Commercial-Service
-  Commercial-Community
-  Residential-Suburban



Map Created by  
County of Santa Cruz  
Planning Department  
February 2013

## Alternative Analysis



### Verizon Wireless Telecommunications Facility "Hwy 9 and 236"

Monopine Telecommunications Tower  
13260 Big Basin Way, Boulder Creek, CA 95006

Santa Cruz County APN: 081-084-05

Summary of Site Selection and Technical Evidence  
Conducted by On Air, LLC (agents for Verizon Wireless)



## **Table of Contents**

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• Significant Service Gap Summary	5-7
• Site Design	8
• Benefits to the Community	8
• Methodology	8
• Request for waiver of Setback Requirement	9
• Conclusion	10

## **I. Coverage Objective**

In January of 2011 On Air, LLC was contracted by Verizon Wireless to find an appropriate site location that would provide coverage to the town of Boulder Creek, the surrounding neighborhoods and along both Hwy 9 and Hwy 236, as they pass through town.

This area is a part of Verizon Wireless' advertised coverage area yet has very poor service coverage. Boulder Creek is a historically underserved community by wireless communications providers. Verizon Wireless has received numerous "trouble tickets" and customer complaints from residents in the area prompting them to initiate the search for a new wireless facility. Coverage in the area is primarily outdoor service only with very little in-building penetration and call volume capacity.

On Air investigated several other potential site locations including co-locations. After an extensive search of the area for co-locatable towers it was determined that a new tower site must be developed in order to adequately provide service to Verizon Wireless customers in the area. The proposed site beat meets the coverage objectives while minimizing the impact to the community. Additionally, a new tower site will provide co-location opportunities for other wireless carriers who also desire to provide their customers with wireless services in the same area.

## II. Published Search Ring Information



The “Boulder Creek” site seen to the left in the depiction above is high on the ridge line at the Christmas tree farm on Empire Grade. This site is the closest to the Boulder Creek community but is almost 2100’ higher in elevation. Although it would seem that high sites are the most desirable, coverage at the bottom of a valley is typically best provided by a site at the bottom of that valley. That way the site can easily project to the surrounding hill sides as well as along the valley floor in all directions.

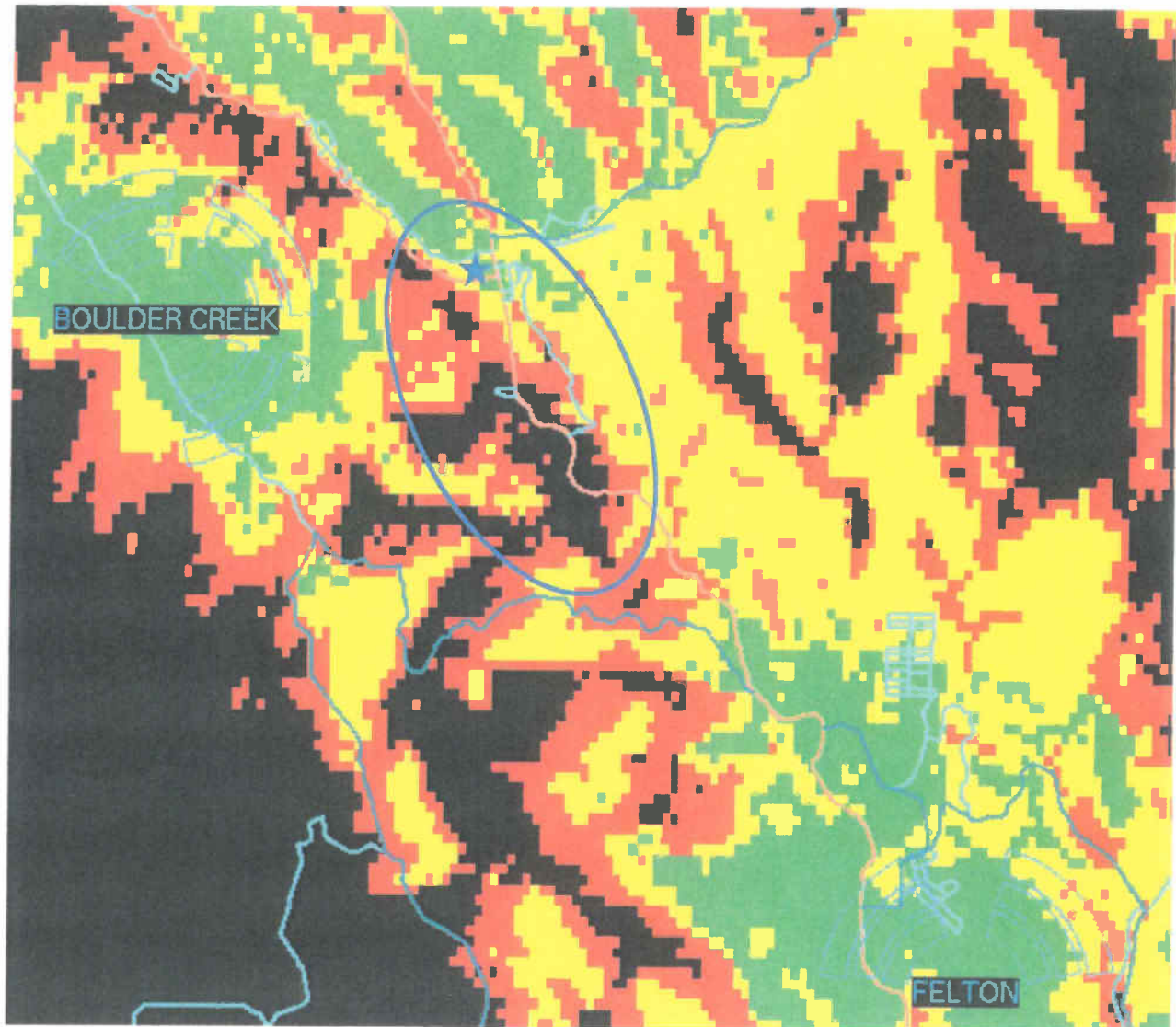
### **III. Significant Service Gap Summary**

Verizon Wireless has identified a significant gap in both coverage and capacity in the area of Boulder Creek. Hwy 9 is a well-travelled route from Hwy 1 and the city of Santa Cruz to the communities to the north such as Felton, Ben Lomand, Boulder Creek and beyond. This roadway and the communities along it lack adequate coverage. Consistent wireless communications service on major roadways is a primary objective of Verizon Wireless. These days most emergency 911 calls are initiated from hand held devices. Cellular coverage along roadways enhances public safety by providing access emergency services.

Current coverage in the area is provided by "Boulder Creek" site to the west and to a lesser extent the "Felton" site to the south. As mentioned previously, these sites are too far away from Boulder Creek to provide adequate coverage to the residents there. Additionally, when coverage in an area comes from outlying facilities, the result is that call volume in the area tends to overload the surrounding sites thereby diminishing their service potential as well. This is happening to the "Boulder Creek" site on Empire Grade. One of the coverage objectives of the Hwy 9 and 236 site is to "offload" the "Boulder Creek" and "Felton" sites.

The proposed site will provide customers in the Boulder Creek community strong outdoor and in-building coverage including voice, data, and streaming services. It is also apparent that many of the residents in rural communities such as this tend to tele-commute. The proposed site will also provide reliable and high-speed internet access within the homes and businesses in the area.

## Gap in Service

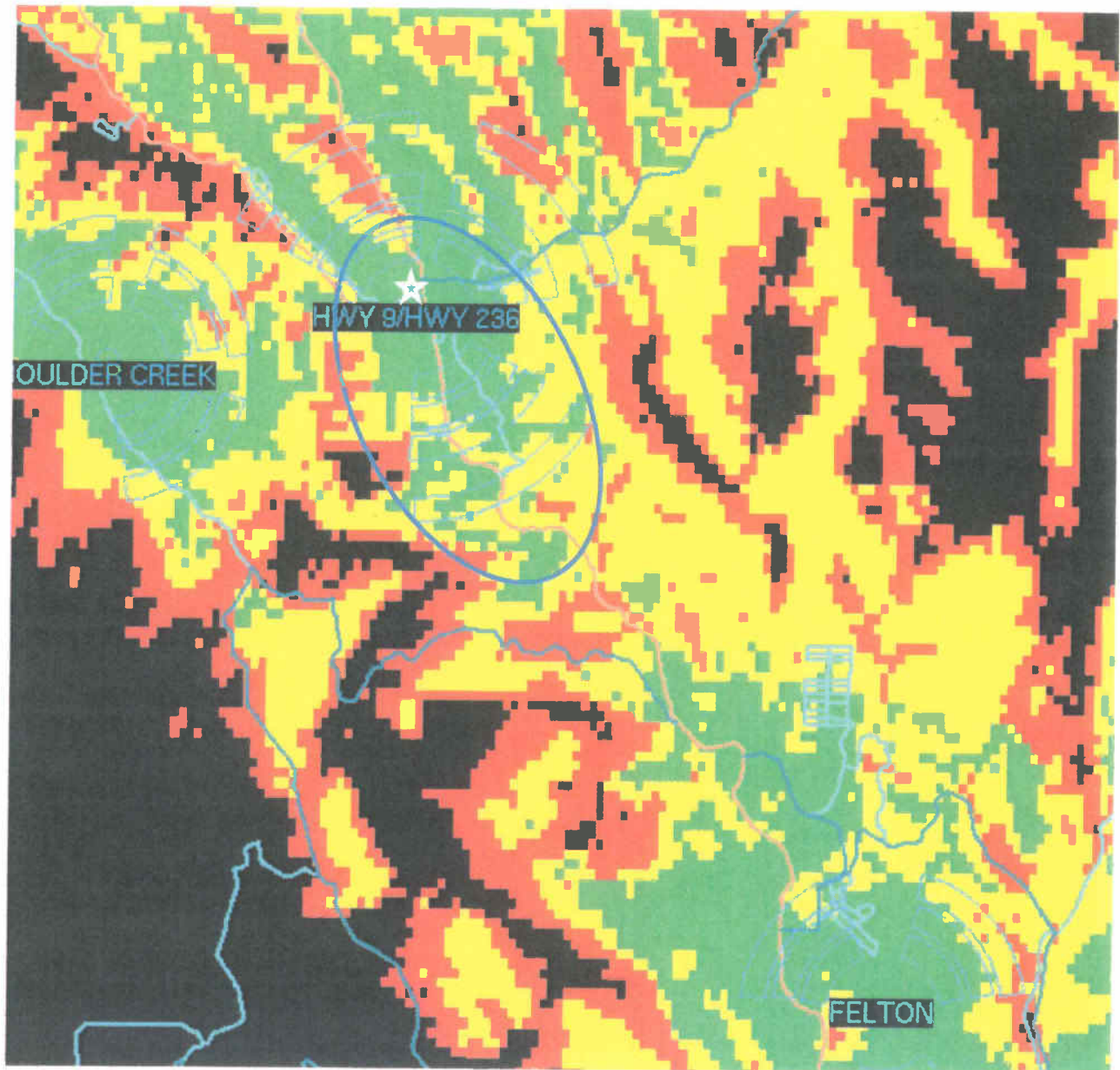


In the depiction above:

- \* The star indicates the proposed site location.
- \* The oval is the coverage objective.
- \* The Green areas indicate in-building service.
- \* The Yellow indicates weak outdoor coverage only.
- \* The Red indicates intermittent or no coverage.
- \* The Black indicates no coverage at all.



## Proposed Coverage



In the depiction above:

- \* The star indicates the proposed site location.
- \* The oval is the coverage objective.
- \* The Green areas indicate in-building service.
- \* The Yellow indicates weak outdoor coverage only.
- \* The Red indicates intermittent or no coverage.
- \* The Black indicates no coverage at all.

When comparing the before and after coverage maps it is clear that the proposed site will provide coverage to a large area as well as nearly seamless connection with the coverage area of the "Felton" site to the south as well as the "Boulder Creek site to the west.



#### **IV. Site Design**

The proposed site will consist of a co-locatable 50' monopine, outdoor radio equipment, and a propane powered stand-by generator within a 30'x40' lease area. Nine panel antennas will be mounted at the 42' level.

A stealth monopine was chosen to lessen the visual impact of the site and to best comply with the Development Standards contained in the County's ordinance. The position of the pole itself was chosen as the least visually obtrusive location with a stand of tall pine trees adjacent to the pole.

Because the entire parcel is not securely fenced in any equipment as well as the base of the monopine would have to be behind security fencing. Outdoor equipment was chosen because then only a couple of the radio cabinets would be about 1' higher than a 6' high fence. If an equipment shelter was used then the entire 12'x16' shelter would be seen as it would be at least 4' higher than the fencing. It was decided that cedar picket fencing would be used to best conform with the appearance and character of the surrounding community.

#### **V. Benefits to the Community**

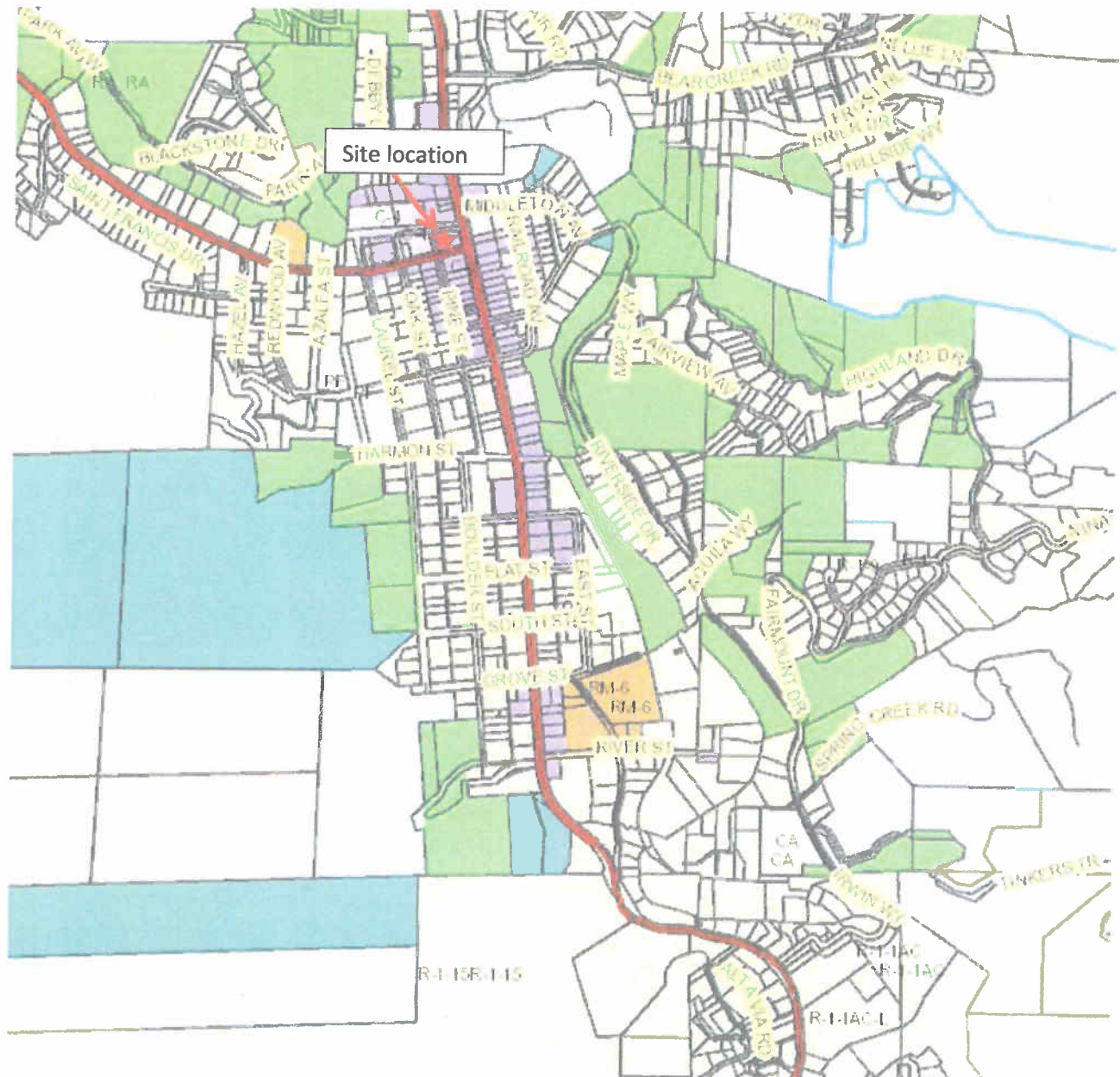
1. Most emergency communications are initiated on hand held devices. The proposed site will provide emergency wireless communication services to the residents of Boulder Creek and the surrounding community as well as travelers along the covered roadways.
2. The proposed stand-by generator will keep the site operational during a power outage enhancing public safety by maintaining emergency communications in the event of natural disaster or other serious emergencies.
3. Provide the unincorporated areas of Boulder Creek, its local business owners and their customers with reliable in-building voice, high-speed data, and internet service capabilities so that they can better conduct their business.
4. The new tower will allow for co-location opportunities that may attract other wireless carriers to this location providing enhanced coverage from multiple carriers.

#### **VI. Methodology**

On Air and Verizon Wireless always looks to the local zoning codes and general plans to identify the sites that will have the least impact to the community while still providing the wireless communication services that the public desires. Visual impact is a primary concern. Verizon Wireless always cooperates with the local jurisdiction and the community to mitigate a site's impact through stealthing techniques and careful site selection. In addition to these considerations a viable site candidate must have a willing land owner, feasibility of construction, road access, and available telephone and electrical utilities.

## VII. Request for waiver of the 300' setback requirement

In selecting site candidates On Air looked for parcels in which the base of a tower could be 300' from the property line of any residentially zoned parcel as required in section 13.10.663 (A)(9). This goal could not be accomplished. Below is the County's GIS parcel map of the search area and coverage objective with zoning designations color coded and overlaid.



In the map above the beige and brown parcels are residential, the green have a residential overlay, and the purple are commercial. It is clear that the only parcels in which a tower could be located 300' from all residential parcel lines would be well outside the search area. The proposed location is almost center in the largest area of non-residentially zoned parcels. There are 3 parcels within 300' of the site. They are 13165, 13170 and 13180 Oak Street.

## **VIII. Conclusion:**

The tower was designed to accommodate the antennas of at least two additional carriers as is desired by the County. Towers are typically designed for co-location and take into account the antenna centerlines that are expected to be necessary for future co-locators to service their desired coverage objective. Each prospective co-locating carrier will need to evaluate their antenna centerline requirements to determine if the available tower space will meet their needs.

The location of the proposed site is almost in the center of the town of Boulder Creek as that is the optimal location necessary to meet Verizon Wireless' coverage objective. The location is on a slight rise from Hwy 9 and can project well along the valley floor in both directions. Because of this all that is required to provide the necessary coverage for Verizon Wireless is a relatively low height of 50 feet to the top of the branches of the proposed monopine tower.

Adjacent to the monopine is a stand of tall pine trees that provide a visual back drop of more trees. From the most publicly viewable locations along Hwy 9 and the town of Boulder Creek the new monopine will be well screened by these trees. This is one of the most desirable conditions for effective screening. All of the views in the included photo simulations show how this backdrop serves to hide the monopine in front.

It is expected that the ground equipment will be mostly hidden from view as well. Only the top one foot or so of some of the radio cabinets are taller than a 6' fence. An 8' fence was also considered but it was thought that such a high fence would be more obtrusive than a few pieces of equipment being seen.

This facility is believed to have the least impact to the community possible while offering future opportunity for co-location. On Air and Verizon Wireless are confident that there are no less obtrusive alternatives existing that would fulfill all of the objectives mentioned in this report.

Once operational the site will provide the convenience and safety of reliable voice, data, and internet services for the benefit of the community. Public safety will be enhanced and these services will stay operational during extended power outages. We are confident that the benefits to the community far outweigh the inconvenience of construction and the slight visual impact of the site.

Thank you for your consideration.



EXHIBIT A

**Verizon Wireless • Proposed Base Station (Site No. 250378 "Hwy 9 & Hwy 236")  
13260 Big Basin Way • Boulder Creek, California**

**Statement of Hammett & Edison, Inc., Consulting Engineers**

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 250378 "Hwy 9 & Hwy 236") proposed to be located at 13260 Big Basin Way in Boulder Creek, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

**Executive Summary**

Verizon proposes to install directional panel antennas on a tall steel pole, configured to resemble a pine tree, to be located at 13260 Big Basin Way in Boulder Creek. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

**Prevailing Exposure Standards**

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5,000–80,000 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
BRS (Broadband Radio)	2,600	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.35	0.47
[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 "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the



**Verizon Wireless • Proposed Base Station (Site No. 250378 “Hwy 9 & Hwy 236”)  
13260 Big Basin Way • Boulder Creek, California**

antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

### **Computer Modeling Method**

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

### **Site and Facility Description**

Based upon information provided by Verizon, including zoning drawings by Foresight Land Surveying & Civil Engineering, dated November 21, 2011, it is proposed to install nine Andrew Model DBXNH-6565A-VTM directional panel antennas on a new 45-foot steel pole, configured to resemble a pine tree, to be installed behind the two-story commercial building located at 13260 Big Basin Way in Boulder Creek. The antennas would be mounted with no downtilt at an effective height of about 42 feet above ground and would be oriented in groups of three toward 50°T, 150°T, and 330°T. The maximum effective radiated power in any direction would be 4,000 watts, representing simultaneous operation at 930 watts for PCS, 2,720 watts for cellular, and 350 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.

### **Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.0089 mW/cm<sup>2</sup>, which is 1.6% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building\* would be 3.0% of the public exposure limit. It should be noted that these results include several “worst-case” assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

---

\* Including the residences located at least 160 feet away, based on photographs from Google Maps.

**Verizon Wireless • Proposed Base Station (Site No. 250378 "Hwy 9 & Hwy 236")  
13260 Big Basin Way • Boulder Creek, California**

**No Recommended Mitigation Measures**

Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its 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 operation of the base station proposed by Verizon Wireless at 13260 Big Basin Way in Boulder Creek, 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, 2013. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



*William F. Hammett*  
William F. Hammett, P.E.  
707/996-5200

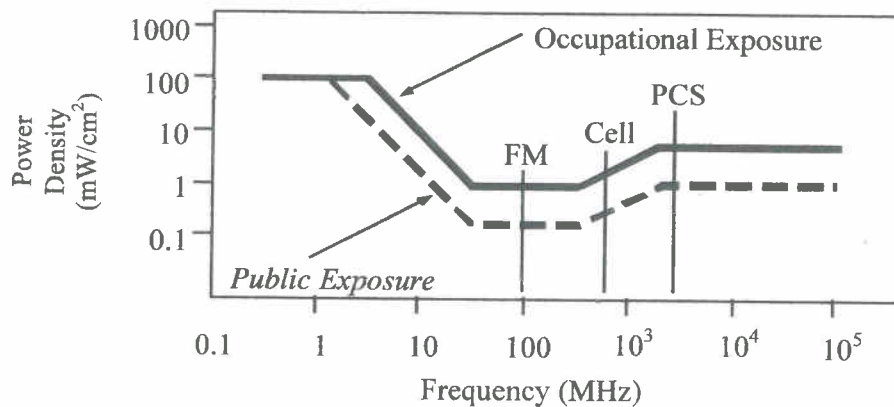
December 23, 2011

## FCC Radio Frequency Protection Guide

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

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

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



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



**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

FCC Guidelines  
Figure 1



## RFR.CALC™ Calculation Methodology

### Assessment by Calculation of Compliance with FCC Exposure Guidelines

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

#### Near Field.

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

For a panel or whip antenna, power density  $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$ , in mW/cm<sup>2</sup>,

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

where  $\theta_{BW}$  = half-power beamwidth of the antenna, in degrees, and

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

$D$  = distance from antenna, in meters,

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

$\eta$  = aperture efficiency (unitless, typically 0.5-0.8).

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

#### Far Field.

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

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

where ERP = total ERP (all polarizations), in kilowatts,

RFF = relative field factor at the direction to the actual point of calculation, and

$D$  = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 ( $1.6 \times 1.6 = 2.56$ ). 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. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.



**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

Methodology  
Figure 2

**Frank Barron**

---

**From:** appointments@luminescencedayspa.com  
**Sent:** Monday, June 24, 2013 2:13 PM  
**To:** Frank Barron  
**Subject:** Objection to Land Use Eye Sore in downtown Boulder Creek

Dear Frank, I am a merchant in downtown Boulder Creek. My business is on Route 9. I have become aware of a land use request to build a Verizon cell tower in downtown. I would like to make it known that I object to this use as it would be an eyesore and ruin the look of Downtown Boulder Creek. This will impact business for all merchants in downtown.

Regards,

Elizabeth Fenton

Owner, Luminescence Day Spa

13140 Highway 9, Boulder Creek

## Frank Barron

---

**From:** Hope Teasdale [hopeteas@hotmail.com]  
**Sent:** Monday, June 24, 2013 4:05 PM  
**To:** Frank Barron  
**Subject:** Cell tower in Boulder Creek

To Whom it My Concern,

I vehemently object to the proposal of a cell tower being installed in Boulder Creek!!!! I have been a resident of Boulder Creek since 2000 and I moved here specifically because of the beauty and quaintness of our town. A tower would be an eyesore to our community! Please do not allow is to happen. This would be a travesty. What other towns are as sweet and down home as Boulder Creek with it's historic buildings and Main Street not even having a single stoplight? NO TO A CELL TOWER in Boulder Creek.

Thank you,  
Hope Teasdale

## Frank Barron

---

**From:** Michael Barnes [michael\_barnes@usa.net]  
**Sent:** Monday, June 24, 2013 4:29 PM  
**To:** Frank Barron  
**Subject:** Allow a Verizon cell tower in downtown Boulder Creek

Mr Barron,

I am writing you in support of a Verizon cell site in Boulder Creek. I would welcome the improved phone coverage that a Verizon cell site would provide.

Thanks,  
Michael Barnes  
16020 Kings Creek Rd  
Boulder Creek, CA 95006



## Frank Barron

---

**From:** Cristy Aloysi [caloyasi@msn.com]  
**Sent:** Tuesday, June 25, 2013 8:39 PM  
**To:** Frank Barron  
**Subject:** Verizon cell tower in BC

Hi Frank

I just wanted to express our opposition for the proposed cell tower in downtown boulder creek. We feel it is too close to the elementary school and the more densely populated downtown area. We believe Verizon could find a more appropriate location for its tower that would still serve its needs while not exposing hundreds of children (and adults) to unnecessary radiation.

Thanks for your concern

Cristy

Cristy Aloysi & Scott Graham

[www.viscosityglass.com](http://www.viscosityglass.com)

[www.viscositystudio.com](http://www.viscositystudio.com)

206-669-1955

Verizon  
verizonwireless  
HWY 9 & HWY 236

13260 BIG BASIN WAY  
BOULDER CREEK, CA 95006

PSL# 250378  
PSP# 2010562374

ON AIR  
Wireless Site Acquisition &  
Construction Managment

465 First St. West, Suite 101  
Sonoma, CA 95476  
Phone: 707-933-9633  
Fax: 707-257-7099

Foresight  
Land Surveying & Civil Engineering  
Jim Schuricht  
ph 925-389-8180  
email: foresight@comcast.net

REVISIONS		
NO.	DATE	DESCRIPTION
1	7/7/11	FOR REVIEW
2	7/14/11	PER COMMENTS
3	8/31/11	ROTATE AREA
4	11/21/11	NEW LEASE AREA
5	1/7/13	MOVE POLE
6	1/29/13	MOVE POLE BACK
7	4/25/13	ADD ELEV SHT

LOCATION MAP	VICINITY MAP	CODE COMPLIANCE	PROJECT TEAM	
		ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED NOT CONFORMING TO THESE CODES.  1. CALIFORNIA ADMINISTRATIVE CODE (INCLUDING TITLES 24 & 25) 2. CALIFORNIA BUILDING CODE (CBC) 2010 3. CALIFORNIA MECHANICAL CODE (CMC) 2010 4. CALIFORNIA PLUMBING CODE (CPC) 2010 5. CALIFORNIA ELECTRIC CODE (CEC) 2010 6. COUNTY ORDINANCES  ACCESSIBILITY REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2010 CALIFORNIA BUILDING CODE.	<b>ENGINEER:</b> FORESIGHT LAND SURVEYING & CIVIL ENGINEERING CONTACT: JIM SCHURICHT PHONE: (925) 389-8180  <b>OWNER:</b> CHRISTOPHER & NANCY CURRIER PO BOX 432 BOULDER CREEK, CA 95006 PHONE: 831 338 3903  <b>APPLICANT:</b> Verizonwireless 2785 MITCHELL DRIVE WALNUT CREEK, CA 94598 CONTACT: JAY INOUIYE PHONE: (925) 279-6391  <b>AGENT:</b> ON AIR 465 FIRST ST. WEST, SUITE 101 SONOMA, CA 95476 PHONE: 707-933-9633 FAX: 707-257-7099 CONTACT: AARON DELAO PHONE: (916) 792-8686	
	SHEET INDEX	PROJECT DESCRIPTION	SIGNATURES	
	T-1 TITLE SHEET C-1 SITE SURVEY A-1 SITE PLAN A-2 ENLARGED PLANS A-3 ELEVATION VIEWS A-4 ELEVATION VIEWS A-5 ENLARGED ELEVATION	INSTALLATION OF NEW STEALTH 50' TREEPOLE. THREE PANEL ANTENNAS PER SECTOR (9 TOTAL). OUTDOOR EQUIPMENT AND 30kw PROPANE GENERATOR TO BE INSTALLED IN 30'x40' LEASE AREA.		
	DRIVING DIRECTIONS	FROM VERIZON OFFICE - WALNUT CREEK, CA HEAD SOUTHWEST ON MITCHELL DR TOWARD N WIGET LN 0.3 MI TURN LEFT ONTO N WIGET LN 0.3 MI TURN RIGHT ONTO YGNACIO VALLEY RD 3.0 MI TURN LEFT TO MERGE ONTO I-680 S TOWARD SAN JOSE 33.7 MI TAKE EXIT 12 FOR MISSION BLVD/STATE ROUTE 262 TOWARD I-880 0.2MI KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR MISSION BLVD W AND MERGE ONTO MISSION BLVD/STATE ROUTE 262 S 1.0 MI KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-880 S AND MERGE ONTO I-880 S 12.6 MI CONTINUE ONTO CA-17 S 10.2 MI TAKE THE BEAR CREEK RD EXIT 440 FT TURN LEFT ONTO BEAR CREEK RD 12.9 MI TURN LEFT ONTO CA-9 S 0.2 MI TAKE THE 2ND RIGHT ONTO LORENZO ST DESTINATION WILL BE ON THE LEFT 318 FT  13260 BIG BASIN WAY BOULDER CREEK, CA 95006	VERIZON WIRELESS EQUIPMENT ENGINEER:  SIGNAUTRE DATE  VERIZON WIRELESS CONSTRUCTION:  SIGNAUTRE DATE  PROPERTY OWNER:  SIGNAUTRE DATE  AGENT-CONSTRUCTION:  SIGNAUTRE DATE  VERIZON WIRELESS REAL-ESTATE:  SIGNAUTRE DATE  VERIZON WIRELESS RF ENGINEER:  SIGNAUTRE DATE  AGENT-LEASING:  SIGNAUTRE DATE  AGENT-ZONING:  SIGNAUTRE DATE	BUILDING/SITE DATA
			APN NUMBER: 081-084-05 PSL NUMBER: 250378 OCCUPANCY TYPE: UNOCCUPIED CONSTRUCTION TYPE: V-N LAT/LONG 37°07'31.89"(NAD 27) 122°07'21.49"(NAD 27) 37°07'31.70"(NAD 83) 122°07'25.36"(NAD 83)	

SITE ADDRESS:  
13260 BIG BASIN WAY  
BOULDER CREEK, CA  
APN: 081-084-05  
  
PROPOSED EQUIPMENT INSTALLATION  
HWY 9 & HWY 236  
SITE No. 250378  
  
verizonwireless  
ON AIR  
Wireless Site Acquisition &  
Construction Managment  
465 First St. West, Suite 101  
Sonoma, CA 95476  
Phone: 707-933-9633  
Fax: 707-257-7099  
DRAWN: rdb DATE: 1/7/13  
FILE: 1121  
SHEET NO.  
T-1



**C-1**



PROPOSED ACCESS:  
NO IMPROVEMENTS TO THIS ROUTE  
NOTE THAT THE SURFACE IS  
HARD PACKED DIRT AND GRAVEL

WATER VALVE °

PROPOSED 15' WIDE  
SITE ACCESS AND  
UTILITY EASMENT

FOUND IP

WALL

PLANTER

NEW VAULT  
12' GATE  
30'

PROPANE  
TANK

REDWOOD  
TREES

PROPOSED 5' WIDE  
UTILITY ROUTE

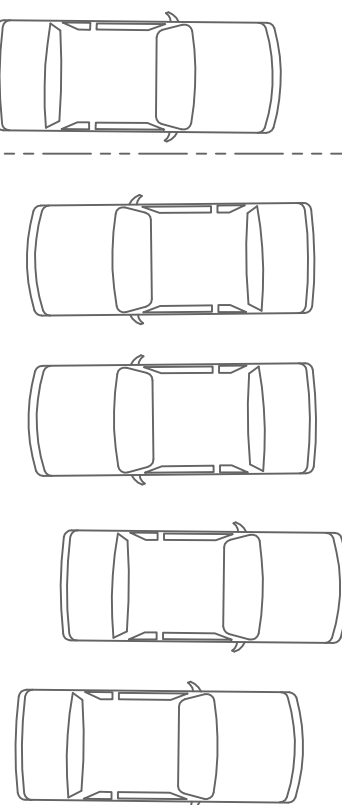
PROPOSED VERIZON  
WIRELESS OUTDOOR  
EQUIPMENT

A.P.N. 081-084-04

(E) BUILDING

N13°25'28"W 92.00'

CARPORT



PROPOSED  
VERIZON WIRELESS  
30'x40' LEASE AREA  
PROPOSED 30kw  
PROPANE GENERATOR

CONTAINER TO BE REMOVED BY LESSOR

PROPOSED TREE POLE  
45' TOP OF POLE  
50' TOP OF BRANCHES  
42' C OF ANTENNAS

SEE ENLARGED  
VIEW SHEET A-2

A.P.N. 081-084-05

TEST ° WELL

SHED

FENCE

EDGE OF PAVEMENT

LORENZO ST.

MONITORING °  
WELL

EDGE OF PAVEMENT

MONITORING  
WELL °

SANITARY SEWER  
MANHOLE °

WALNUT  
TREE

WALNUT  
TREE

PINE ST.

PG&E VAULT  
BACK FLOW  
VALVE

BROADBAND  
VAULT

TELCO  
VAULT

WATER METER

PG&E VAULT

MONITORING  
WELL °

MONITORING  
WELL °

MONITORING  
WELL °

WATER VALVE °

PG&E VAULT

TV VAULT

(E)  
TELCO  
VAULT  
(P.O.C.)  
PG&E VAULT (E)  
PG&E VAULT (E)

SITE PLAN  
SCALE: 1"=10'-0"

BIG BASIN WAY/RTE. 236

**ON AIR**  
Wireless Site Acquisition &  
Construction Management

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6	12/27/11	PER REDLINES
7	01/03/13	RELOCATE POLE
8	01/29/13	PROPANE TANK

SITE ADDRESS:  
13260 BIG BASIN WAY  
BOULDER CREEK, CA  
APN: 081-084-05

PROPOSED EQUIPMENT INSTALLATION  
HWY 9 & HWY 236  
SITE No. 250378

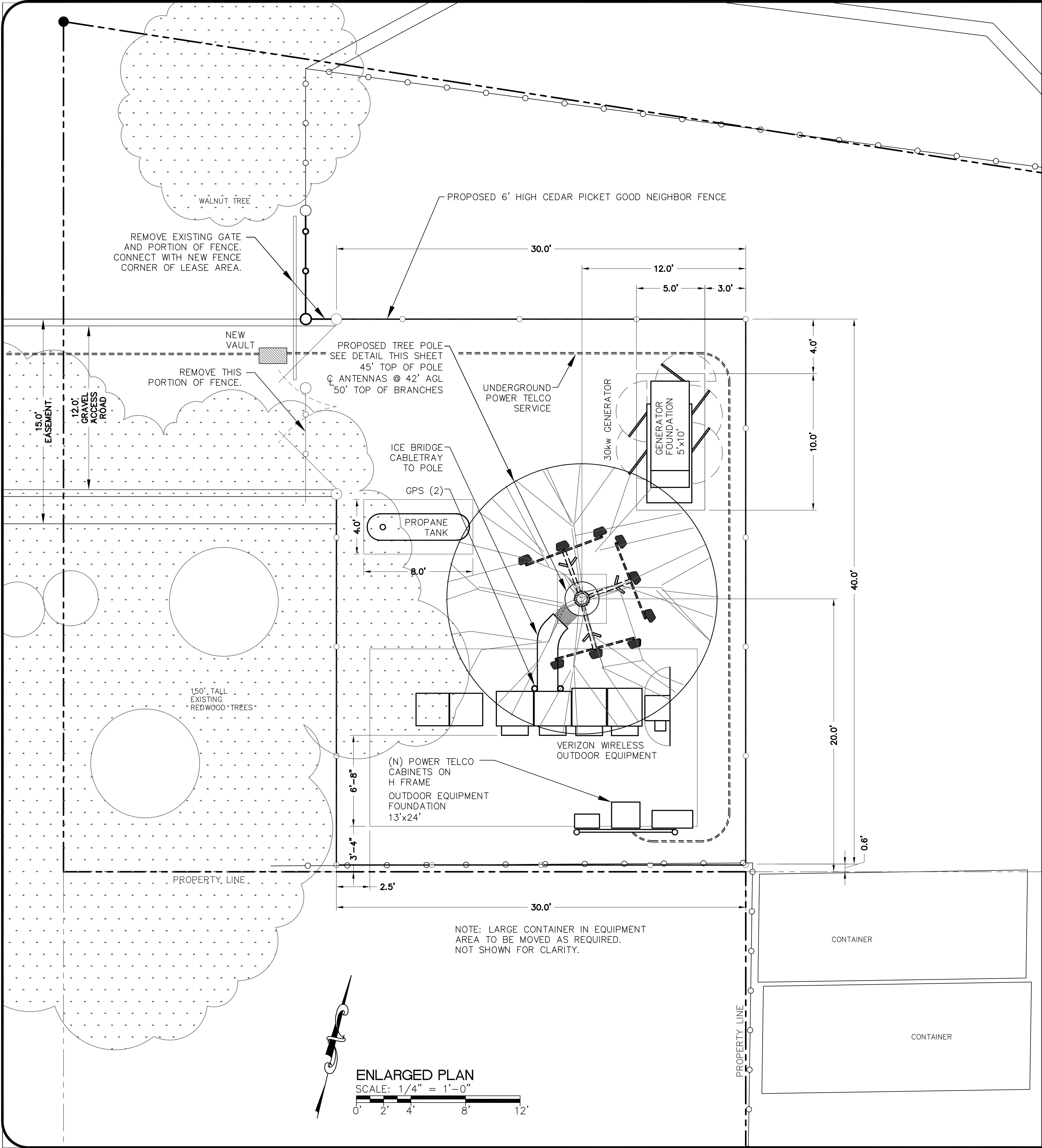
VERIZON WIRELESS  
2785 MITCHELL DR. SUITE 9  
WALNUT CREEK, CA 94598

verizonwireless

DRAWN: rdb DATE: 08/23/11  
FILE: 1121  
SHEET NO.

A-1

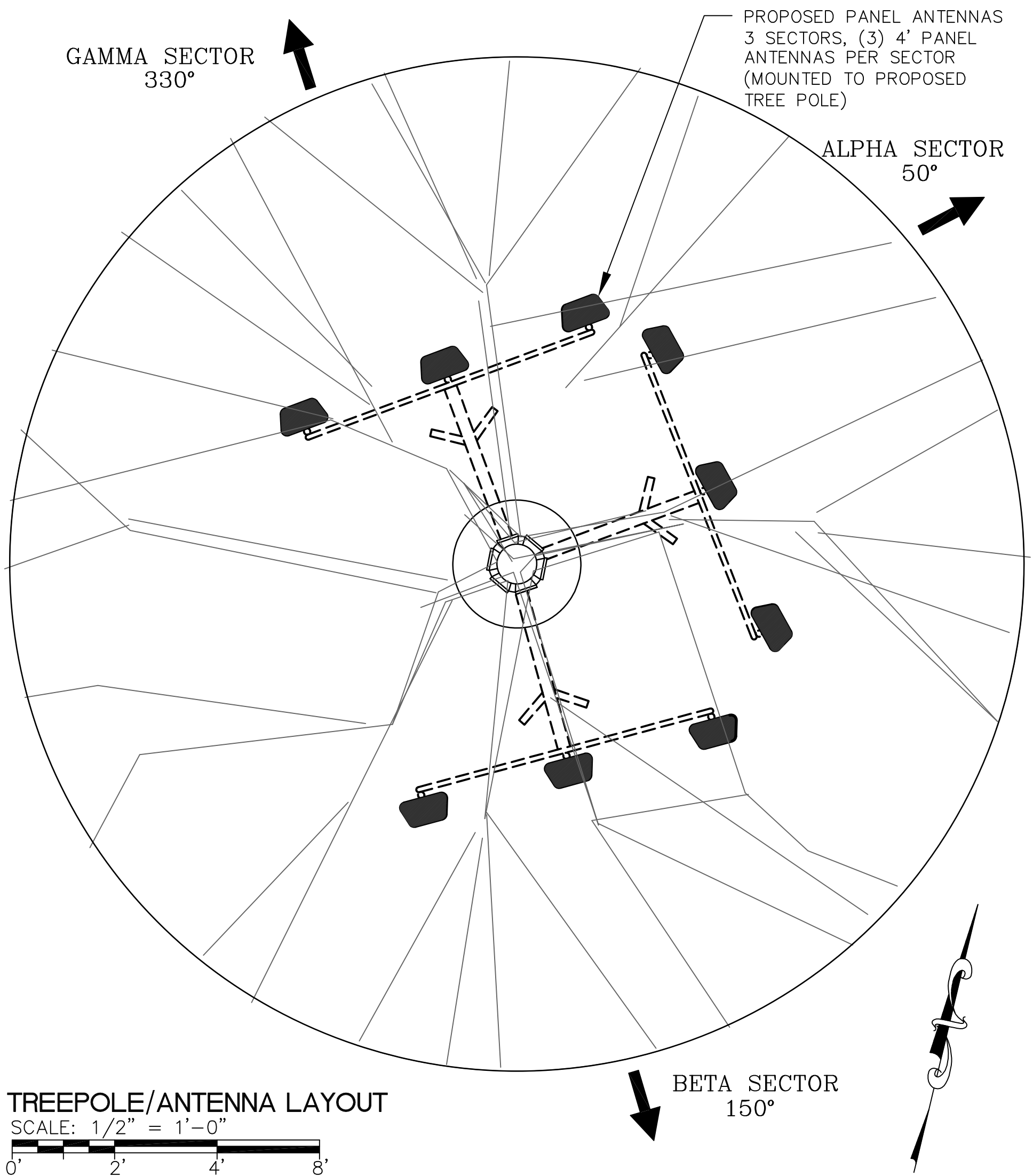




PROPOSED TREEPOLE BARK



PROPOSED TREEPOLE FOLIAGE



TREEPOLE/ANTENNA LAYOUT  
SCALE: 1/2" = 1'-0"

**ON AIR**  
Wireless Site Acquisition & Construction Management

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BOULDER CREEK, CA  
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HWY 9 & HWY 236  
SITE No. 250378

VERIZON WIRELESS  
2785 MITCHELL DR. SUITE 9  
WALNUT CREEK, CA 94598

verizonwireless

DRAWN: rdb DATE: 07/14/11  
FILE: 1121  
SHEET NO.

A-2



REVISIONS

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4	9/29/11	RELOCATE UTILITIES
5	11/21/11	NEW LEASE AREA
6	2/5/13	CABINET SIZE

SITE ADDRESS:  
13260 BIG BASIN WAY  
BOULDER CREEK, CA  
APN: 081-084-05

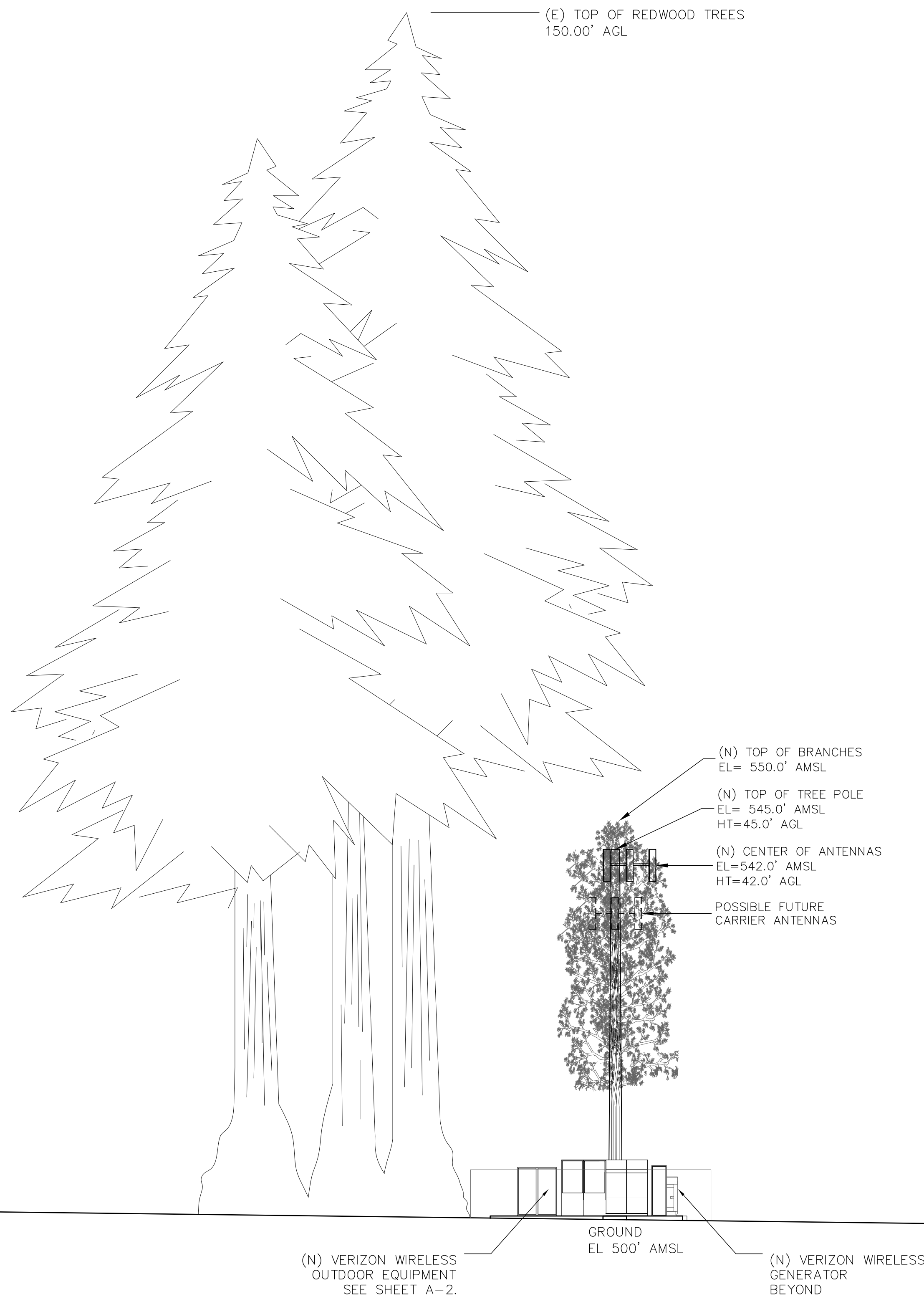
PROPOSED EQUIPMENT INSTALLATION  
HWY 9 & HWY 236  
SITE No. 250378

VERIZON WIRELESS  
2785 MITCHELL DR, SUITE 9  
WALNUT CREEK, CA 94598

verizonwireless

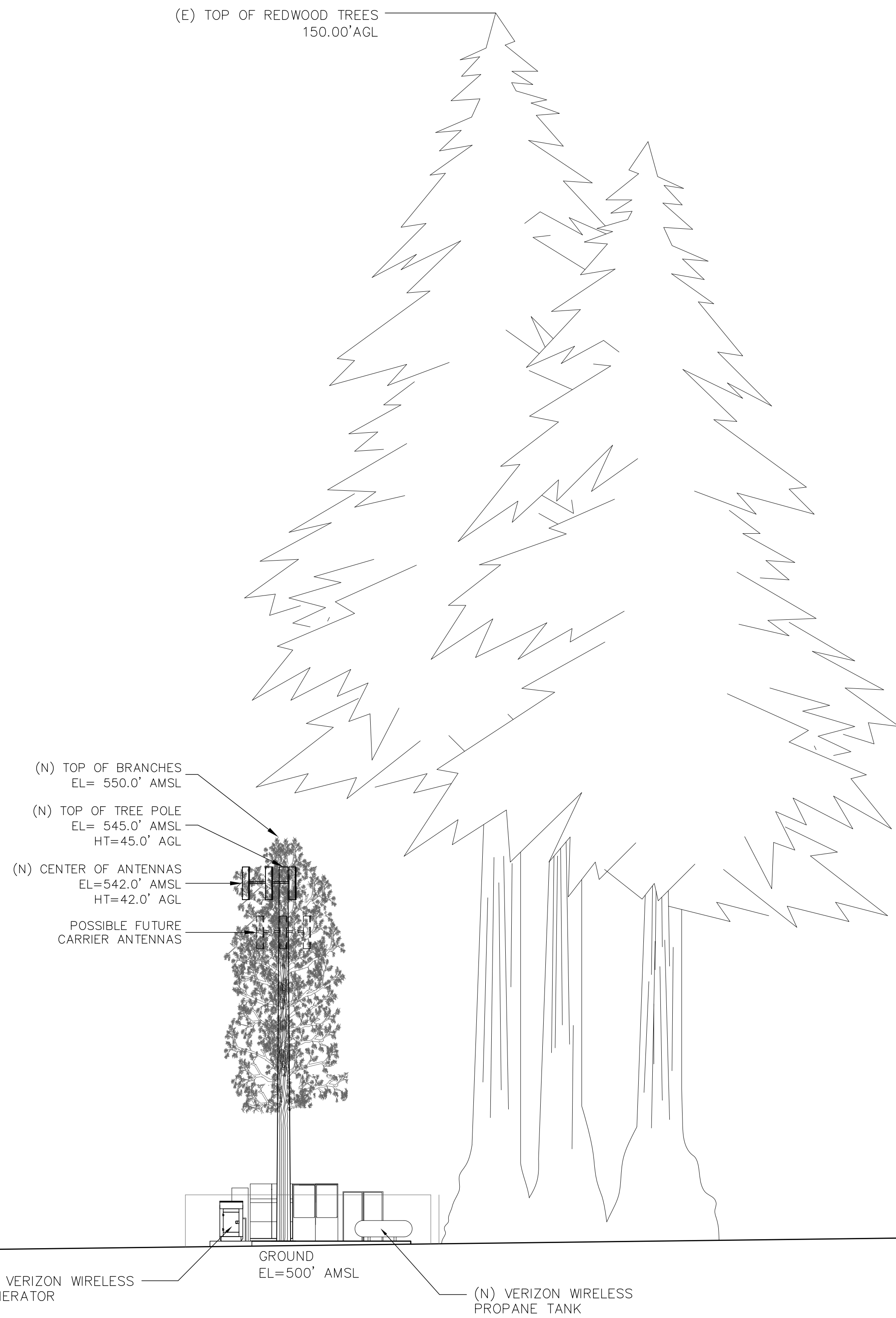
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FILE: 1121  
SHEET NO.

**A-3**



SOUTH ELEVATION

SCALE 1"=10'-0"



NORTH ELEVATION

SCALE 1"=10'-0"

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SITE ADDRESS:  
13260 BIG BASIN WAY  
BOULDER CREEK, CA  
APN: 081-084-05

VERIZON WIRELESS  
2785 MITCHELL DR. SUITE 9  
WALNUT CREEK, CA 94598

PROPOSED EQUIPMENT INSTALLATION  
HWY 9 & HWY 236  
SITE No. 250378

verizonwireless

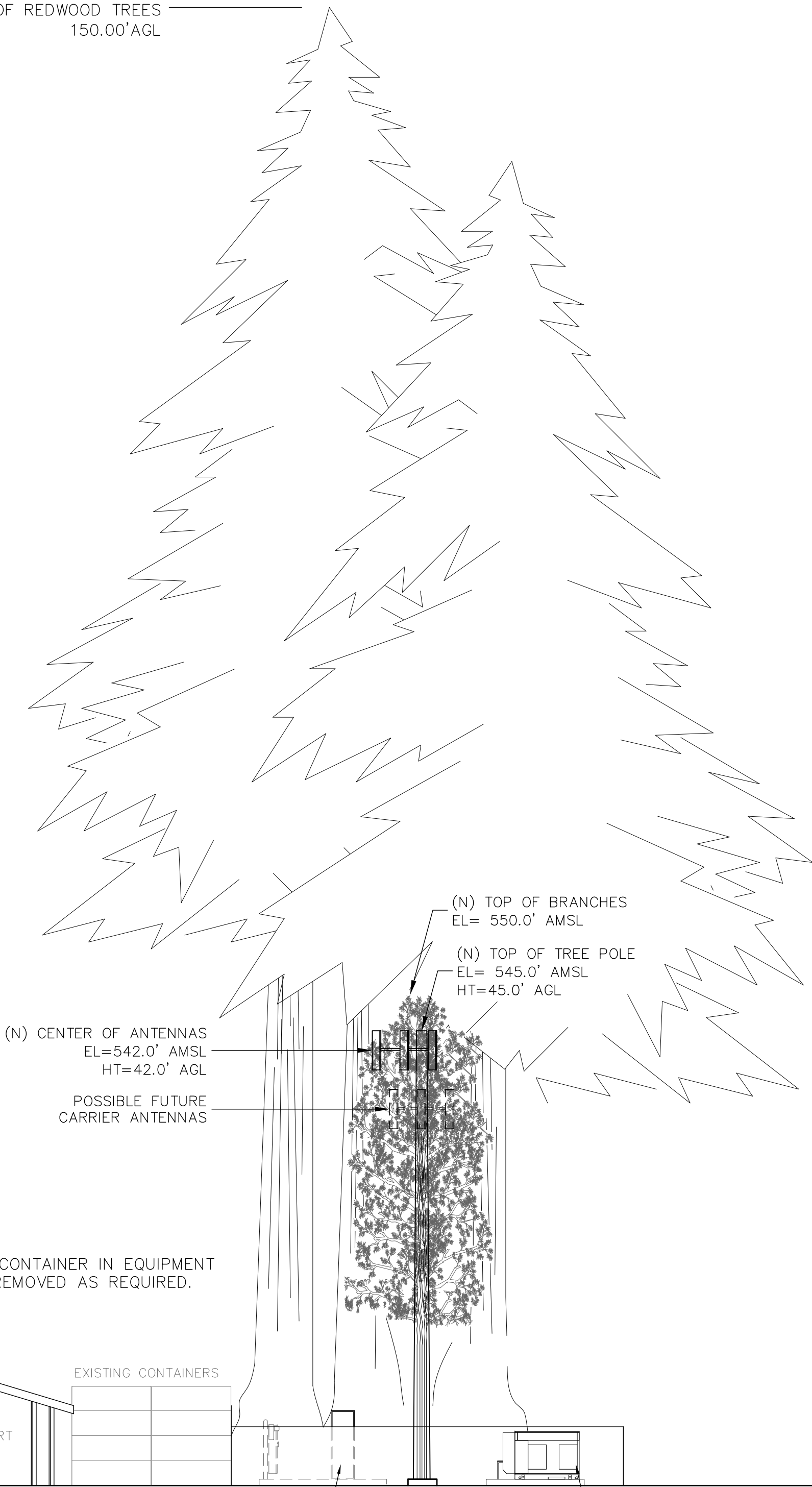
DRAWN: rdb DATE: 07/14/11

FILE: 1121

SHEET NO.

**A-4**

(E) TOP OF REDWOOD TREES  
150.00' AGL



SCALE: 1"=10'-0"  
0' 10' 20' 30'

EAST ELEVATION

SCALE 1"=10'-0"

(E) TOP OF REDWOOD TREES  
150.00' AGL



SCALE: 1"=10'-0"  
0' 10' 20' 30'

WEST ELEVATION

SCALE 1"=10'-0"



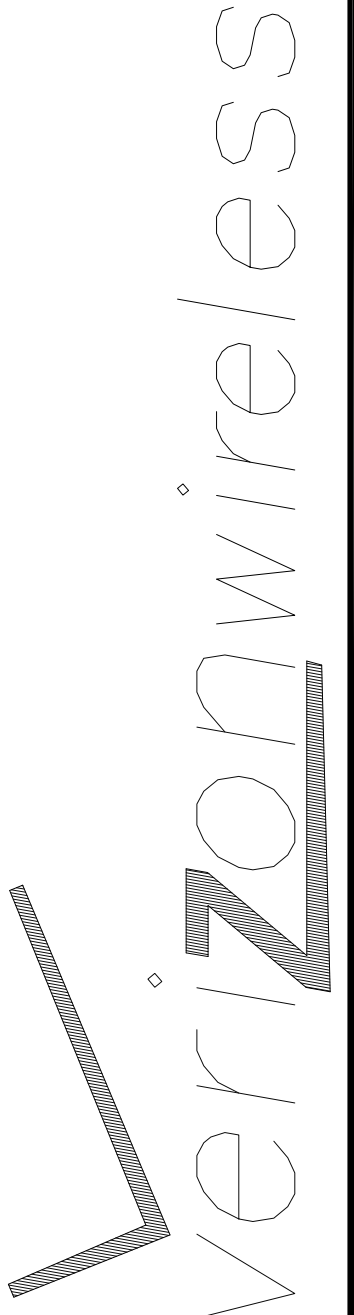
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APN: 081-084-05

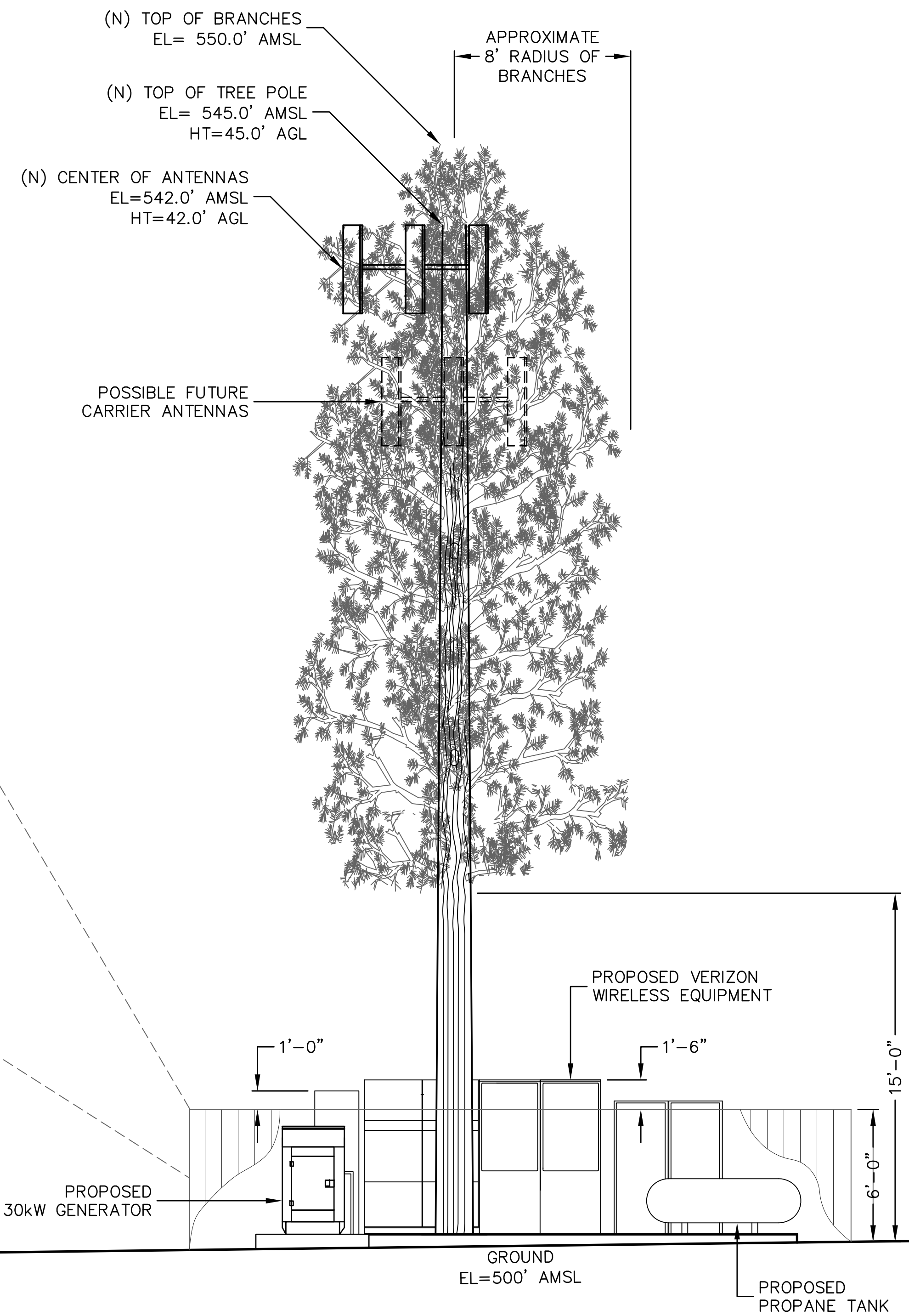
VERIZON WIRELESS  
2785 MITCHELL DR. SUITE 9  
WALNUT CREEK, CA 94598

PROPOSED EQUIPMENT INSTALLATION  
HWY 9 & HWY 236  
SITE No. 250378



DRAWN: rdb | DATE: 07/14/11  
FILE: 1121  
SHEET NO.

**A-5**



SCALE: 1"=4'-0"

0' 10' 20' 30'

NORTH ELEVATION ENLARGMENT

SCALE 1"=4'-0"