

Case File Number: PLN16041

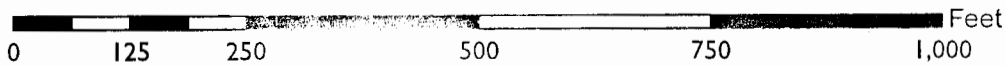
April 20, 2016

Location:	The Public Right-of-Way at Asilomar Dr. (Adjacent to 1989 Asilomar Dr.) (See map on reverse)
Assessors Parcel Numbers:	048E-7337-017-00 (nearest lot adjacent to the project site.)
Proposal:	The installation of a distributed antenna system (DAS) wireless telecommunication facility on a new public utility pole in the right-of-way on Asilomar Dr.; facility includes two panel Kathrein antennas mounted at approximately 51'-4" pole height; an associated equipment box (6' tall by 24" wide); including one battery backup and meter boxes attached to the pole at 8' above the ground.
Applicant:	New Cingular Wireless PCS, LLC. For AT&T Mobility
Contact Person/ Phone Number:	Matthew Yergovich (415)596-3474
Owner:	City of Oakland
Case File Number:	PLN16041
Planning Permits Required:	Regular Design Review (non-residential) to install a wireless Macro Telecommunications Facility (17.136.050 (B)(2); Additional Findings for a Macro Facility (OMC Sec. 17.128.070(B)(C).
General Plan:	Hillside Residential
Zoning:	RH-4 Hillside Residential 4 Zone
Environmental Determination:	Exempt, Section 15303 of the State CEQA Guidelines (small facilities or structures; installation of small new equipment and facilities in small structures), and none of the exceptions to the exemption in CEQA Guidelines Section 15300.2 apply to the proposal. Exempt, Section 15183 of the State CEQA Guidelines; projects consistent with a community plan, general plan or zoning.
Historic Status:	Not a Potential Designated Historic Property; Survey rating: N/A
Service Delivery District:	2
City Council District:	4
Date Filed:	February 16, 2016
Finality of Decision:	Appealable to City Council within 10 Days
For Further Information:	Contact case planner Jose M. Herrera-Preza at (510) 238-3808 or jherrera@oaklandnet.com

SUMMARY

The proposal is to install a distributed antenna system ("DAS") wireless Telecommunications Macro Facility on a replacement Joint Pole Authority (JPA) utility pole located in the public right-of-way along Asilomar Drive near the intersection with Balboa Drive. New Cingular Wireless PCS for AT&T Mobility is proposing to install two panel antennas mounted on top of a new JPA replacement pole, resulting in a new height of 51'-4" (to top of antennas); an associated equipment box, one battery backup and meter boxes within a 6' tall by 18" wide singular equipment box attached to the pole at 8' above the ground.

CITY OF OAKLAND PLANNING COMMISSION



Case File: PLN16041

Applicant: New Cingular Wireless PCS, LLC (d/b/a AT&T Mobility)

Address: Public Right-of-Way adjacent to 1989 Asilomar Drive

Zone: RH-4

A Major Design Review permit is required to install a new Telecommunications Facility located within 100' of a residential zone. As detailed below, the project meets all of the required findings for approval. Therefore, staff recommends approval of the project subject to the attached conditions of approval.

PROJECT DESCRIPTION

The applicant (New Cingular Wireless PCS, LLC. for AT&T Mobility) is proposing to install a distributed antenna system ("DAS") wireless Telecommunications Macro Facility on a new replacement JPA utility pole located in the public right-of-way along Asilomar Dr. near 1989 Asilomar Dr. in a hillside area surrounded by single-family homes. The project consists of swapping an existing 38'-9" foot JPA pole with a new 48' JPA pole in the same location, with two panel antennas (each is two feet long and 10 inches wide) mounted onto the new JPA pole resulting in a 51'-4" tall pole; an associated equipment box, one battery backup and meter boxes within a 6' tall by 18" wide singular equipment box attached to the pole at 8' above the ground. The proposed facility is an alternative location chosen by the applicant as a response to neighbor opposition to a facility near 2047 Asilomar Drive. (Case #PLN15180). The proposed antennas and associated equipment will be secured from the public. (See Attachment A).

TELECOMMUNICATIONS BACKGROUND

Limitations on Local Government Zoning Authority under the Telecommunications Act of 1996

Section 704 of the Telecommunications Act of 1996 (TCA) provides federal standards for the siting of "Personal Wireless Services Facilities." "Personal Wireless Services" include all commercial mobile services (including personal communications services (PCS), cellular radio mobile services, and paging); unlicensed wireless services; and common carrier wireless exchange access services. Under Section 704, local zoning authority over personal wireless services is preserved such that the FCC is prevented from preempting local land use decisions; however, local government zoning decisions are still restricted by several provisions of federal law.

Under Section 253 of the TCA, no state or local regulation or other legal requirement can prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.

Further, Section 704 of the TCA imposes limitations on what local and state governments can do. Section 704 prohibits any state and local government action which unreasonably discriminates among personal wireless providers. Local governments must ensure that its wireless ordinance does not contain requirements in the form of regulatory terms or fees which may have the "effect" of prohibiting the placement, construction, or modification of personal wireless services.

Section 704 also preempts any local zoning regulation purporting to regulate the placement, construction and modification of personal wireless service facilities on the basis, either directly or indirectly, on the environmental effects of radio frequency emissions (RF) of such facilities, which otherwise comply with FCC standards in this regard. See, 47 U.S.C. 332(c)(7)(B)(iv) (1996). This means that local authorities may not regulate the siting or construction of personal wireless facilities based on RF standards that are more stringent than those promulgated by the FCC.

Section 704 mandates that local governments act upon personal wireless service facility siting applications to place, construct, or modify a facility within a reasonable time. 47 U.S.C.332(c)(7)(B)(ii). See FCC Shot Clock ruling setting forth "reasonable time" standards for applications deemed complete.

Section 704 also mandates that the FCC provide technical support to local governments in order to encourage them to make property, rights-of-way, and easements under their jurisdiction available for the placement of new spectrum-based telecommunications services. This proceeding is currently at the comment stage.

For more information on the FCC's jurisdiction in this area, contact Steve Markendorff, Chief of the Broadband Branch, Commercial Wireless Division, Wireless Telecommunications Bureau, at (202) 418-0640 or e-mail "smarkend@fcc.gov".

PROPERTY DESCRIPTION

The existing 38'-9" tall JPA utility pole is located in the City of Oakland public right-of-way adjacent to 1989 Asilomar Dr. to the south, which contains a single-family residence on a hillside parcel, and another residence on the parcel to the north, in a relatively wooded hillside residential neighborhood.

GENERAL PLAN ANALYSIS

The subject property is located within the Hillside Residential Area of the General Plan Land Use & Transportation Element (LUTE). The Hillside Residential Classification is intended *"to create, maintain, and enhance neighborhood residential areas that are characterized by detached, single unit structures on hillside lots"*. The proposed "DAS" telecommunication facilities will be mounted on a new wood JPA pole intended to resemble existing PG&E utility poles within the City of Oakland public right-of-way. Visual impacts will be mitigated since the antennas would be mounted 50'+ plus feet above the right-of-way. The equipment cabinets will be housed within a single box and painted to match the existing utility pole and sited in a nondescript area of the public right-of way in between two city streets. Therefore, the proposed unmanned wireless telecommunication facility will not adversely affect or detract from the resource conservation characteristics of the neighborhood.

Civic and Institutional uses

Objective N2

Encourage adequate civic, institutional and educational facilities located within Oakland, appropriately designed and sited to serve the community.

Staff finds the proposal to be in conformance with the objectives of the General Plan by servicing the community with enhanced telecommunications capability.

ZONING ANALYSIS

The proposed project is located in the RH-4 Hillside Residential 4 Zone. The intent of the RH-4 Zone is: *"to create, maintain, and enhance areas for single-family dwellings on lots of six thousand five hundred (6,500) to eight thousand (8,000) square feet and is typically appropriate in already developed areas of the Oakland Hills"*. The proposed telecommunication facility is located adjacent to 1989 Asilomar Dr. in a hillside residential area of the Oakland Hills. The project requires Regular Design Review per 17.136.050, which states that Macro Telecommunications Facilities proposed in residential areas with special findings, to allow the installation of new telecommunication facilities on a replacement JPA pole located in the public right-of-way in a Residential Zone. Special findings are required for Design Review approval to ensure that the facility is concealed to the extent possible.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines lists the projects that qualify as categorical exemptions from environmental review. Staff finds that the proposed project is categorically exempt from the environmental review requirements pursuant to Section 15301, (additions and alterations to existing facilities), and Section 15303 (small facilities or structures; installation of small new equipment and facilities in small structures), and that none of the exceptions to the exemption in CEQA Guidelines Section 15300.2 are not triggered by the proposal, and 15183 (projects consistent with a General Plan or Zoning) further applies.

KEY ISSUES AND IMPACTS

1. Regular Design Review

Section, 17.136.050 and 17.128.070 of the City of Oakland Planning Code requires Regular Design Review for Macro Telecommunication Facilities in the Hillside Residential zone or that are located within one hundred (100) feet of the boundary of any residential zone. The required findings for Regular Design Review, and the reasons this project meets them, are listed and included in staff's evaluation as part of this report.

2. Project Site

Section 17.128.110 of the City of Oakland Telecommunication Regulations indicate that new wireless facilities shall generally be located on designated properties or facilities in the following order of preference:

- A. Co-located on an existing structure or facility with existing wireless antennas.
- B. City-owned properties or other public or quasi-public facilities.
- C. Existing commercial or industrial structures in non-residential zones (excluding all HBX Zones and the D-CE-3 and D-CE-4 Zones).
- D. Existing commercial or industrial structures in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.
- E. Other non-residential uses in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.
- F. Residential uses in non-residential zones (excluding all HBX Zones and the D-CE-3 and D-CE-4 Zones).
- G. Residential uses in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.

*Facilities located on an A, B or C ranked preferences do not require a site alternatives analysis.

Since the proposed project involves locating the installation of new antennas and associated equipment cabinets on an existing utility pole, the proposed project meets: (B) quasi-public facilities on for a new wood JPA pole in the public right-of-way. The applicant has also provided a statement on site alternative analysis to indicate a public necessity for telecommunication services in the area.

3. Project Design

Section 17.128.120 of the City of Oakland Telecommunications Regulations indicates that new wireless facilities shall generally be designed in the following order of preference:

- A. Building or structure mounted antennas completely concealed from view.
- B. Building or structure mounted antennas set back from roof edge, not visible from public right-of way.

- C. Building or structure mounted antennas below roof line (facade mount, pole mount) visible from public right-of-way, painted to match existing structure.
- D. Building or structure mounted antennas above roof line visible from public right of-way.
- E. Monopoles.
- F. Towers.

* Facilities designed to meet an A & B ranked preference does not require a site design alternatives analysis. Facilities designed to meet a C through F ranked preference, inclusive, must submit a site design alternatives analysis as part of the required application materials. (c) site design alternatives analysis shall, at a minimum, consist of:

- a. Written evidence indicating why each higher preference design alternative cannot be used. Such evidence shall be in sufficient detail that independent verification could be obtained if required by the City of Oakland Zoning Manager. Evidence should indicate if the reason an alternative was rejected was technical (e.g. incorrect height, interference from existing RF sources, inability to cover required area) or for other concerns (e.g. inability to provide utilities, construction or structural impediments).

City of Oakland Planning staff, along with the applicant, completed an on-site site design analysis and determined that the site selected conforms to all other telecommunication regulation requirements. The project meets design criteria (C) since the antennas will be mounted on a new wood JPA pole resembling existing PG&E wood poles in the area, in addition to locating the new pole in an area where the new facility is surrounded by utility poles and the equipment cabinet box and battery backup box will be housed within a single equipment box attached to the utility pole and painted to match the color of an existing PG&E utility pole to minimize potential visual impacts from public view. In addition, the applicant conducted an extensive site design alternative analysis of 1 alternative sites (See attachment C) where significant gaps in coverage exist and was visually the least obtrusive.

4. Project Radio Frequency Emissions Standards

Section 17.128.130 of the City of Oakland Telecommunication Regulations require that the applicant submit the following verifications including requests for modifications to existing facilities:

- a. With the initial application, a RF emissions report, prepared by a licensed professional engineer or other expert, indicating that the proposed site will operate within the current acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.
- b. Prior to commencement of construction, a RF emissions report indicating the baseline RF emissions condition at the proposed site.
- c. Prior to final building permit sign off, an RF emissions report indicating that the site is actually operating within the acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.

The RF-EME Electromagnetic Energy Compliance Report, prepared by William F. Hammett, P.E. for Hammett & Edison Inc. Consulting Engineers, indicates that the proposed project meets the radio frequency (RF) emissions standards as required by the regulatory agency. The report states that the proposed project will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not cause a significant impact on the environment. Additionally, staff recommends as a condition of approval that, prior to the issuance of a final building permit, the applicant submits a certified RF emissions report stating that the facility is operating within acceptable thresholds established by the regulatory federal agency.

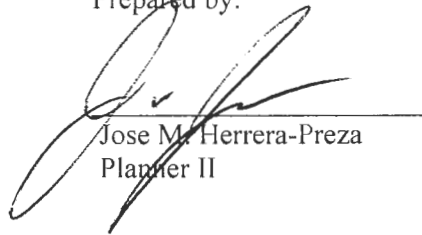
CONCLUSION

The proposed project meets all of the required findings for approval. Therefore, staff recommends approval of the project subject to the attached conditions.

RECOMMENDATIONS:

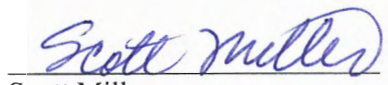
1. Affirm staff's environmental determination
2. Approve Design Review application
PLN15180 subject to the attached findings
and conditions of approval

Prepared by:




Jose M. Herrera-Preza
Planner II

Reviewed by:




Scott Miller
Zoning Manager

Reviewed by:



Darin Ranelletti, Deputy Director
Bureau of Planning

Approved for forwarding to the
City Planning Commission



RACHEL FLYNN, Director
Department of Planning and Building

ATTACHMENTS:

- A. Project Plans & Photo simulations & Alternative Site Analysis
- B. Hammett & Edison, Inc., Consulting Engineering RF Emissions Report
- C. Site Alternative Analysis

FINDINGS FOR APPROVAL

This proposal meets all the required findings under Section 17.136.050.(B), of the Non-Residential Design Review criteria and all the required findings under Section 17.128.070(B), of the telecommunication facilities (Macro) Design Review criteria and as set forth below: Required findings are shown in **bold** type; reasons your proposal satisfies them are shown in normal type.

17.136.050(B) – NONRESIDENTIAL DESIGN REVIEW CRITERIA:

1. That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area. Only elements of design which have some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.136.060;

The project consists of replacing a 38'-9" Joint Pole Authority (JPA) utility pole with a new 51'-4" JPA utility pole in the same location and adding two telecommunications panel antennas (two feet long and 10-inches wide), affixed on top of the utility pole; an associated equipment box, one battery backup and meter boxes within a 6' tall by 18" wide singular equipment box attached to the pole at 8' above the ground, in the public right-of-way along Asilomar Dr. near Balboa Drive. The proposed antennas will be located 48' above the right-of-way near other utility poles, in a nondescript area of right-of-way, which will help the facility to blend in with the existing surrounding hillside residential area. The equipment cabinet, serving the utility pole, will be mounted onto the pole, reducing visual clutter from the neighboring properties. Therefore, the proposal will have minimal visual impacts from public view.

2. That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area;

The proposal improves wireless telecommunication service in the hillside residential area. The installation will be sited near other utility poles of similar height in the surrounding area to have minimal visual impacts on public views, thereby protecting the value of private and public investments in the area.

3. That the proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan, or development control map which have been adopted by the Planning Commission or City Council.

The subject property is located within the Hillside Residential Area of the General Plan's Land Use & Transportation Element (LUTE). The Hillside Residential Classification is intended "to create, maintain, and enhance neighborhood residential areas that are characterized by detached, single unit structures on hillside lots". The proposed telecommunication facilities will be mounted onto a new wood JPA pole, replacing an existing pole and intended to resemble existing utility poles within the City of Oakland public right-of-way. The proposed unmanned wireless telecommunication facility will be located on a new replacement utility pole and will not detract from the hillside residential value of the neighborhood. Visual impacts will be minimized since the site is relatively wooded, with trees partially obscuring views of the pole. Furthermore the equipment serving the facility will be mounted onto the pole in a singular shroud to reduce visual clutter on the pole and antennas, equipment painted to match. Therefore, the Project conforms to the applicable General Plan and Design Review criteria.

17.128.070(B) DESIGN REVIEW CRITERIA FOR MACRO FACILITIES

1. Antennas should be painted and/or textured to match the existing structure:

The proposed antennas will be painted to match the utility pole and blend with the surroundings.

2. Antennas mounted on architecturally significant structures or significant architectural details of the building should be covered by appropriate casings which are manufactured to match existing architectural features found on the building:

The proposed antennas will not be mounted on any building or architecturally significant structure, but rather on a utility pole.

3. Where feasible, antennas can be placed directly above, below or incorporated with vertical design elements of a building to help in camouflaging:

The proposed antennas will be mounted on a new JPA utility pole (to replace an existing JPA pole in the same location) and will be painted to match the pole, and will be further camouflaged by surrounding mature trees.

4. Equipment shelters or cabinets shall be screened from the public view by using landscaping, or materials and colors consistent with surrounding backdrop:

The associated equipment will be located within a single equipment box attached to the utility pole and painted to match the pole and blend with the surroundings.

5. Equipment shelters or cabinets shall be consistent with the general character of the area.

The proposed equipment cabinets will be compatible with the existing utility related equipment.

6. For antennas attached to the roof, maintain a 1:1 ratio for equipment setback; screen the antennas to match existing air conditioning units, stairs, or elevator towers; avoid placing roof mounted antennas in direct line with significant view corridors.

N/A.

7. That all reasonable means of reducing public access to the antennas and equipment has been made, including, but not limited to, placement in or on buildings or structures, fencing, anti-climbing measures and anti-tampering devices.

The antennas will be mounted onto a new JPA utility pole. They will not be accessible to the public due to their location. The equipment accommodation and battery backup boxes will also be located inside a single equipment box mounted onto the pole 8' above the right-of-way and will be secured to the greatest extent possible from the public and vehicles.

CONDITIONS OF APPROVAL
PLN16041

STANDARD CONDITIONS:

1. Approved Use

The project shall be constructed and operated in accordance with the authorized use as described in the approved application materials, **PLN16041** and the approved plans **dated February 16th, 2016**, as amended by the following conditions of approval and mitigation measures, if applicable (“Conditions of Approval” or “Conditions”).

2. Effective Date, Expiration, Extensions and Extinguishment

This Approval shall become effective immediately, unless the Approval is appealable, in which case the Approval shall become effective in ten calendar days unless an appeal is filed. Unless a different termination date is prescribed, this Approval shall expire **two years** from the Approval date, or from the date of the final decision in the event of an appeal, unless within such period all necessary permits for construction or alteration have been issued, or the authorized activities have commenced in the case of a permit not involving construction or alteration. Upon written request and payment of appropriate fees submitted no later than the expiration date of this Approval, the Director of City Planning or designee may grant a one-year extension of this date, with additional extensions subject to approval by the approving body. Expiration of any necessary building permit or other construction-related permit for this project may invalidate this Approval if said Approval has also expired. If litigation is filed challenging this Approval, or its implementation, then the time period stated above for obtaining necessary permits for construction or alteration and/or commencement of authorized activities is automatically extended for the duration of the litigation.

3. Compliance with Other Requirements

The project applicant shall comply with all other applicable federal, state, regional, and local laws/codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City’s Bureau of Building, Fire Marshal, and Public Works Department. Compliance with other applicable requirements may require changes to the approved use and/or plans. These changes shall be processed in accordance with the procedures contained in Condition #4.

4. Minor and Major Changes

- a. Minor changes to the approved project, plans, Conditions, facilities, or use may be approved administratively by the Director of City Planning
- b. Major changes to the approved project, plans, Conditions, facilities, or use shall be reviewed by the Director of City Planning to determine whether such changes require submittal and approval of a revision to the Approval by the original approving body or a new independent permit/approval. Major revisions shall be reviewed in accordance with the procedures required for the original permit/approval. A new independent permit/approval shall be reviewed in accordance with the procedures required for the new permit/approval.

5. Compliance with Conditions of Approval

- a. The project applicant and property owner, including successors, (collectively referred to hereafter as the “project applicant” or “applicant”) shall be responsible for compliance with all the Conditions of Approval and any recommendations contained in any submitted and approved technical report at his/her sole cost and expense, subject to review and approval by the City of Oakland.
- b. The City of Oakland reserves the right at any time during construction to require certification by a licensed professional at the project applicant’s expense that the as-built project conforms to all applicable requirements, including but not limited to, approved maximum heights and minimum setbacks. Failure to construct the project in accordance with the Approval may result in remedial reconstruction, permit revocation, permit modification, stop work, permit suspension, or other corrective action.
- c. Violation of any term, Condition, or project description relating to the Approval is unlawful, prohibited, and a violation of the Oakland Municipal Code. The City of Oakland reserves the right to initiate civil and/or criminal enforcement and/or abatement proceedings, or after notice and public hearing, to revoke the Approval or alter these Conditions if it is found that there is violation of any of the Conditions or the provisions of the Planning Code or Municipal Code, or the project operates as or causes a public nuisance. This provision is not intended to, nor does it, limit in any manner whatsoever the ability of the City to take appropriate enforcement actions. The project applicant shall be responsible for paying fees in accordance with the City’s Master Fee Schedule for inspections conducted by the City or a City-designated third-party to investigate alleged violations of the Approval or Conditions.

6. Signed Copy of the Approval/Conditions

A copy of the Approval letter and Conditions shall be signed by the project applicant, attached to each set of permit plans submitted to the appropriate City agency for the project, and made available for review at the project job site at all times.

7. Blight/Nuisances

The project site shall be kept in a blight/nuisance-free condition. Any existing blight or nuisance shall be abated within 60 days of approval, unless an earlier date is specified elsewhere.

8. Indemnification

- a. To the maximum extent permitted by law, the project applicant shall defend (with counsel acceptable to the City), indemnify, and hold harmless the City of Oakland, the Oakland City Council, the Oakland Redevelopment Successor Agency, the Oakland City Planning Commission, and their respective agents, officers, employees, and volunteers (hereafter collectively called “City”) from any liability, damages, claim, judgment, loss (direct or indirect), action, causes of action, or proceeding (including legal costs, attorneys’ fees, expert witness or consultant fees, City Attorney or staff time, expenses or costs) (collectively called “Action”) against the City to attack, set aside, void or annul this Approval or implementation of this Approval. The City may elect, in its sole discretion, to participate in the defense of said Action and the project applicant shall reimburse the City for its reasonable legal costs and attorneys’ fees.
- b. Within ten (10) calendar days of the filing of any Action as specified in subsection (a) above,

the project applicant shall execute a Joint Defense Letter of Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations. These obligations and the Joint Defense Letter of Agreement shall survive termination, extinguishment, or invalidation of the Approval. Failure to timely execute the Letter of Agreement does not relieve the project applicant of any of the obligations contained in this Condition or other requirements or Conditions of Approval that may be imposed by the City.

9. Severability

The Approval would not have been granted but for the applicability and validity of each and every one of the specified Conditions, and if one or more of such Conditions is found to be invalid by a court of competent jurisdiction this Approval would not have been granted without requiring other valid Conditions consistent with achieving the same purpose and intent of such Approval.

PROJECT SPECIFIC CONDITONS:

10. Radio Frequency Emissions

Prior to the final building permit sign off.

The applicant shall submit a certified RF emissions report stating the facility is operating within the acceptable standards established by the regulatory Federal Communications Commission.

11. Operational

Ongoing.

Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

12. Equipment cabinets

Prior to building permit Issuances.

The applicant shall submit revised elevations showing associated equipment cabinets are concealed within a single equipment box that is painted to match the utility pole, to the Oakland Planning Department for review and approval.

13. Radio Frequency Emissions

Prior to the final building permit sign off

The applicant shall submit a certified RF emissions report stating the facility is operating within the acceptable standards established by the regulatory Federal Communications Commission.

14. Operational

Ongoing

Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be

abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

15. Possible District Undergrounding PG&E Pole

Ongoing

Should the PG &E utility pole be voluntarily removed for purposes of district undergrounding or otherwise, the telecommunications facility can only be re-established by applying for and receiving approval of a new application to the Oakland Planning Department as required by the regulations.

16. TREE TRIMMING CONDITION OF APPROVAL:

Existing vegetation within the right-of-way immediately surrounding the replacement utility pole shall be preserved and only minimal pruning (if any) shall be allowed if absolutely necessary to facilitate the actual installation of the replacement pole, antennas, and/or equipment. Furthermore, any vegetation proposed for trimming and/or removal shall be 1st marked with colored tape or ribbon (visible from ground level) at least 14 calendar days in advance of proposed removal, with review and approval to trim and/or remove vegetation granted by the Zoning Division Manager, and if applicable, by the Department of Public Works Tree Services Division. The only exception to this protocol would be trimming necessary for immediate life safety considerations for public safety.

17. TREE PERMIT CONDIITON OF APPROVAL

Tree Permit Required

Requirement: Pursuant to the City's Tree Protection Ordinance (OMC chapter 12.36), the project applicant shall obtain a tree permit and abide by the conditions of that permit.

When Required: Prior to approval of construction-related permit

Initial Approval: Permit approval by Public Works Department, Tree Division; evidence of approval submitted to Bureau of Building

Monitoring/Inspection: Bureau of Building

Tree Protection During Construction

Requirement: Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

- i. Before the start of any clearing, excavation, construction, or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project's consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.
- ii. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project's consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.
- iii. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project's consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as

- needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.
- iv. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.
 - v. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Department and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.
 - vi. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

When Required: During construction

Initial Approval: Public Works Department, Tree Division

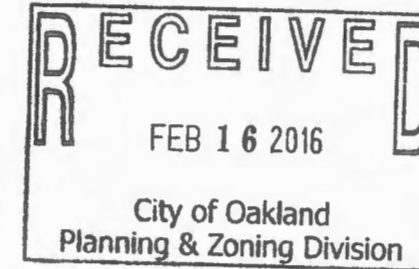
Monitoring/Inspection: Bureau of Building



OAKHILLS AT&T SOUTH NETWORK

OAKS-054J

FRONT OF 1989 ASILOMAR DR
OAKLAND, CA 94611



PROJECT INFORMATION:
OAKHILLS AT&T SOUTH NETWORK
NODE 054J
FRONT OF 1989 ASILOMAR DR.
OAKLAND, CA 94611

CURRENT ISSUE DATE:
01/14/2016

ISSUED FOR:
100% ZONING DRAWINGS

REV.:	DATE:	DESCRIPTION:	BY:
A	12/21/15	90% ZD's	JMC
0	01/14/16	100% ZD's	JMC

PLANS PREPARED BY:
PDC CORPORATION

4555 LAS POSITAS RD, BLDG. A, STE. B
LIVERMORE, CA 94551
TEL: (925) 606-5868

CONSULTANT:

3030 WARRENVILLE RD, SUITE 340
LISLE, IL 60532

DRAWN BY: JMC CHK.: PP APV.: SAS

LICENSER:

SHEET TITLE:
TITLE SHEET, SITE INFORMATION AND VICINITY MAP

SHEET NUMBER:
T-1

CODE COMPLIANCE

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

- 2013 CALIFORNIA ADMINISTRATIVE CODE
- 2013 CALIFORNIA BUILDING CODE
- 2013 CALIFORNIA ELECTRIC CODE
- 2013 CALIFORNIA MECHANICAL CODE
- 2013 CALIFORNIA PLUMBING CODE
- 2013 CALIFORNIA FIRE CODE
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY/COUNTY ORDINANCES

HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA ADMINISTRATIVE STATE CODE PART 2, TITLE 24, CHAPTER 11B, SECTION 1103B.

PROJECT DESCRIPTION

THIS IS AN UNMANNED TELECOMMUNICATIONS FACILITY FOR AT&T WIRELESS CONSISTING OF THE INSTALLATION OF THE FOLLOWING:

- NEW TWO (2) PANEL ANTENNAS MOUNTED ON NEW UTILITY POLE.
- NEW ONE (1) EQUIPMENT SHROUD WITH RADIO AND BBU.
- NEW ONE (1) SAFETY SWITCH MOUNTED 4" FROM POLE.
- NEW ONE (1) METER SOCKET MOUNTED TO POLE.
- NEW CLASS 3 55' WOOD POLE TO REPLACE EXISTING POLE.

DRIVING DIRECTIONS

FROM AT&T OFFICE - SAN RAMON, CA

- HEAD EAST ON ROSEWOOD DR
- MAKE A U-TURN
- TURN RIGHT ONTO OWENS DR
- TURN RIGHT ONTO HACIENDA DR
- SLIGHT RIGHT TO MERGE ONTO I-580 W TOWARD OAKLAND
- MERGE ONTO I-580 W
- KEEP RIGHT AT THE FORK TO STAY DN I-580 W. FOLLOW SIGNS FOR OAKLAND/ SAN FRANCISCO
- KEEP RIGHT AT THE FORK TO CONTINUE ON CA-13
- TAKE THE PARK BLVD EXIT
- TURN LEFT ONTO MOUNTAIN BLVD
- TURN RIGHT ONTO SNAKE RD
- CONTINUE STRAIGHT ONTO SHEPHERD CANYON RD
- TURN RIGHT TO STAY ON SHEPHERD CANYON RD
- TURN LEFT ONTO SKYLINE BLVD
- DESTINATION WILL BE ON THE LEFT

GENERAL CONTRACTOR NOTES

DO NOT SCALE DRAWING:

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SHEET INDEX

SHEET	DESCRIPTION	REV.
T-1	TITLE SHEET, SITE INFORMATION AND VICINITY MAP	0
T-2	GENERAL NOTES, LEGEND AND ABBREVIATIONS	0
C-1	SITE SURVEY	
A-1	OVERALL SITE PLAN	0
A-2	EXISTING AND NEW ELEVATIONS	0
A-3	EQUIPMENT AND CONSTRUCTION DETAILS	0
S-1	POWER & RF SAFTEY PROTOCOLS	0

APPROVALS

LANDLORD: _____
CONSTRUCTION MANAGER: _____
RF ENGINEER: _____
SITE ACQUISITION MANAGER: _____
ZONING MANAGER: _____
UTILITY COORDINATOR: _____
PROGRAM REGIONAL MANAGER: _____
NETWORK OPERATIONS MANAGER: _____

PROJECT TEAM

ENGINEER:
PDC CORPORATION
4555 LAS POSITAS RD,
BLDG. A, STE. B
LIVERMORE, CA 94551
ENGR. OF RECORD: SOHAIL A. SHAH, P.E.
CONTACT: PAULO PUJLIU
OFFICE: (925) 606-5868
MOBILE: (510) 385-5541
EMAIL: paulo@pdccorp.net

APPLICANT/LESSEE:
PDC CORPORATION
2600 CAMINO RAMON
SAN RAMON, CA 94518
CONTACT: VANI MULLER
PHONE: (510) 258-1703

APPLICANT AGENT:
MATTHEW YERGOVICH
EXTENET SYSTEMS REAL ESTATE
CONTRACTOR FOR AT&T MOBILITY
1826 WEBSTER ST
SAN FRANCISCO, CA 94115
PHONE: (415) 596-3474
EMAIL: myergo@gmail.com

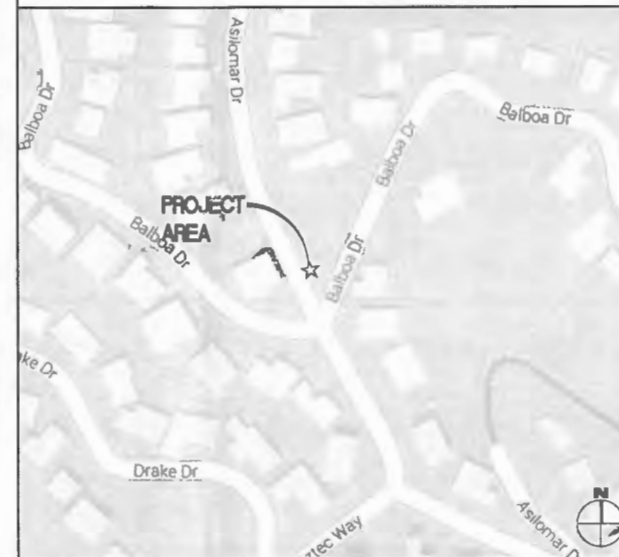
MUNICIPAL AFFAIRS:
EXTENET SYSTEMS CA, LLC.
CONTACT: BILL STEPHENS
PHONE: (510) 612-2511

CONSTRUCTION MANAGER:
EXTENET SYSTEMS CA, LLC.
CONTACT: KEN BOOKER
PHONE: (510) 406-0829

PROJECT INFORMATION

SITE ADDRESS: FRONT OF 1989 ASILOMAR DR
OAKLAND, CA 94611
APN: -
PROPERTY OWNER: PUBLIC RIGHT OF WAY
LATITUDE: 37° 49' 52.38" (NAD 83)
LONGITUDE: 122° 12' 17.87" (NAD 83)
GROUND ELEVATION: N/A
HEIGHT OF STRUCTURE: ±38'9"
TYPE OF CONSTRUCTION: ATTACHMENTS TO NEW WOOD POLE
JURISDICTION: ALAMEDA COUNTY
TELEPHONE: AT&T
POWER: PG&E

VICINITY MAP



	NEW ANTENNA
	EXISTING ANTENNA
	GROUND ROD
	GROUND BUS BAR
	MECHANICAL GRND. CONN.
	CADWELD
	GROUND ACCESS WELL
	ELECTRIC BOX
	TELEPHONE BOX
	LIGHT POLE
	FND. MONUMENT
	SPOT ELEVATION
	SET POINT
	REVISION
	GRID REFERENCE
	DETAIL REFERENCE
	ELEVATION REFERENCE
	SECTION REFERENCE
	GROUT OR PLASTER
	(E) BRICK
	(E) MASONRY
	CONCRETE
	EARTH
	GRAVEL
	PLYWOOD
	SAND
	WOOD CONT.
	WOOD BLOCKING
	STEEL
	CENTERLINE
	PROPERTY/LEASE LINE
	MATCH LINE
	WORK POINT
	GROUND CONDUCTOR
	TELEPHONE CONDUIT
	ELECTRICAL CONDUIT
	COAXIAL CABLE
	OVERHEAD SERVICE CONDUCTORS
	CHAIN LINK FENCING

A.B.	ANCHOR BOLT
ABV.	ABOVE
ACCA	ADDITIONAL
ADD'L	ADDITIONAL
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
ALUM.	ALUMINUM
ALT.	ALTERNATE
ANT.	ANTENNA
APPRX.	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
AWG.	AMERICAN WIRE GAUGE
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B.N.	BOUNDARY NAILING
BTCW.	BARE TINNED COPPER WIRE
B.O.F.	BOTTOM OF FOOTING
B/U	BACK-UP CABINET
CAB.	CABINET
CANT.	CANTILEVER(ED)
C.I.P.	CAST IN PLACE
C.L.G.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION(OR)
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
d	DENY
DBL.	DOUBLE
DEPT.	DEPARTMENT
D.F.	DOUGLAS FIR
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DWG.	DRAWING(S)
DWL.	DOWEL(S)
EA.	EACH
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMT.	ELECTRICAL METALLIC TUBING
E.N.	EDGE NAIL
ENG.	ENGINEER
EQ.	EQUAL
EXP.	EXPANSION
EXST.(E)	EXISTING
EXT.	EXTERIOR
FAB.	FABRICATION(OR)
F.F.	FINISH FLOOR
F.G.	FINISH GRADE
FIN.	FINISH(ED)
FLR.	FLOOR
FDN.	FOUNDATION
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
F.S.	FINISH SURFACE
FT.(')	FOOT (FEET)
FTG.	FOOTING
G.	GROWTH (CABINET)
GA.	GAUGE
GI.	GALVANIZE(D)
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER
GLB. (GLU-LAM)	GLUE LAMINATED BEAM
GPS	GLOBAL POSITIONING SYSTEM

GRND.	GROUND
HDR.	HEADER
HGR.	HANGER
HT.	HEIGHT
ICGB.	ISOLATED COPPER GROUND BUS
IN.(')	INCH(ES)
INT.	INTERIOR
LB.(#)	LAG BOLT(S)
L.B.	LAG BOLT(S)
L.F.	LINEAR FEET (FOOT)
L.	LONG(ITU)DINAL
MAS.	MASONRY
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
(N)	NEW
NO.(#)	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OPNG.	OPENING
P/C	PRECAST CONCRETE
PCS	PERSONAL COMMUNICATION SERVICES
PLY.	PLYWOOD
PPC	POWER PROTECTION CABINET
PRC	PRIMARY RADIO CABINET
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
P.T.	PRESSURE TREATED
PWR.	POWER (CABINET)
QTY.	QUANTITY
RAD.(R)	RADIUS
REF.	REFERENCE
REINF.	REINFORCEMENT(ING)
REQ'D.	REQUIRED
RGS.	RIGID GALVANIZED STEEL
SCH.	SCHEDULE
SHT.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION(S)
SO.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STRUC.	STRUCTURAL
TEMP.	TEMPORARY
THK.	THICK(NESS)
T.N.	TOE NAIL
T.O.A.	TOP OF ANTENNA
T.O.C.	TOP OF CURB
T.O.F.	TOP OF FOUNDATION
T.O.P.	TOP OF PLATE (PARAPET)
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.G.	UNDER GROUND
U.L.	UNDERWRITERS LABORATORY
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
W	WIDE(WIDTH)
W/	WITH
WB.	WOOD
W.P.	WEATHERPROOF
WT.	WEIGHT
C	CENTERLINE
E	PLATF, PROPERTY LINE

ABBREVIATIONS

2

GENERAL CONSTRUCTION NOTES:

1. THE FACILITY IS AN UNOCCUPIED DIGITAL TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
6. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
7. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION ENGINEER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
8. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS.
9. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.
10. NOT USED.
11. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
12. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWING (SHEET LS1), SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ENGINEER.
13. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF AT&T.
14. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST OR SMUDGES OF ANY NATURE.
15. PENETRATIONS OF ROOF MEMBRANES SHALL BE PATCHED/FLASHED AND MADE WATERTIGHT USING LIKE MATERIALS IN ACCORDANCE WITH NRCA ROOFING STANDARDS AND DETAILS. CONTRACTOR SHALL OBTAIN DETAILING CLARIFICATION FOR SITE-SPECIFIC CONDITIONS FROM ENGINEER, IF NECESSARY, BEFORE PROCEEDING.
16. BEFORE ORDERING AND/OR BEFORE FABRICATING/CONSTRUCTING/INSTALLING ANY ITEMS, VERIFY THE TYPES AND QUANTITIES.
17. CONTRACTOR SHALL PROVIDE SITE FOREMAN WITH A CELLULAR PHONE AND PAGER, AND KEEP SAME ON SITE WHENEVER PERSONNEL ARE ON SITE.
18. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE SITE AND NOTIFY THE PROJECT MANAGER OF ANY DISCREPANCIES BEFORE STARTING ANY WORK.
19. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
20. CONTRACTOR TO PROVIDE COMPLETE SET OF AS BUILT DRAWINGS WITHIN 10 WORKING DAYS OF PROJECT COMPLETION.
21. CONTRACTOR IS TO EXCAVATE 6" BELOW EXISTING GRADE AND SPRAY WITH WEED CONTROL. REPLACE WITH CLASS II AGGREGATE BASE AND CRUSHED WASHED ROCK, AS SPECIFIED ON SITE PLAN.
22. CONTRACTOR SHALL PROVIDE TOILET FACILITY DURING ALL PHASES OF CONSTRUCTION.
23. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OR THE FABRICATION OF MATERIALS TO BE INSTALLED AT THE SITE, THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS INCLUDING AS-BUILT DIMENSIONS OF EXISTING STRUCTURES OR STRUCTURAL ELEMENTS HAVING A BEARING ON THE SCOPE OF THE WORK TO BE PERFORMED. IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE DIMENSIONS OR CONDITIONS FOUND TO BE EXISTING IN THE FIELD, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OBTAIN DESIGN RESOLUTION PRIOR TO PROCEEDING WITH THE PORTION(S) OF THE WORK AFFECTED. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO SO NOTIFY THE ENGINEER AND OBTAIN RESOLUTION BEFORE PROCEEDING.

3

GENERAL CONSTRUCTION NOTES

4



PROJECT INFORMATION:

**OAKHILLS AT&T
SOUTH NETWORK
NODE 054J**
FRONT OF 1989 ASILOMAR DR.
OAKLAND, CA 94611

CURRENT ISSUE DATE:

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REV.	DATE	DESCRIPTION	BY
A	12/21/15	90% ZD's	JMC
0	01/14/16	100% ZD's	JMC

PLANS PREPARED BY:



4555 LAS POSITAS RD, BLDG. A, STE. B
LIVERMORE, CA 94551
TEL: (925) 606-5868

CONSULTANT:



3030 WARRENVILLE RD, SUITE 340
Lisle, IL 60532

DRAWN BY: CHK.: APV.:

JMC PP SAS

LICENSER:

SHEET TITLE:

**GENERAL NOTES,
LEGEND AND
ABBREVIATIONS**

SHEET NUMBER:

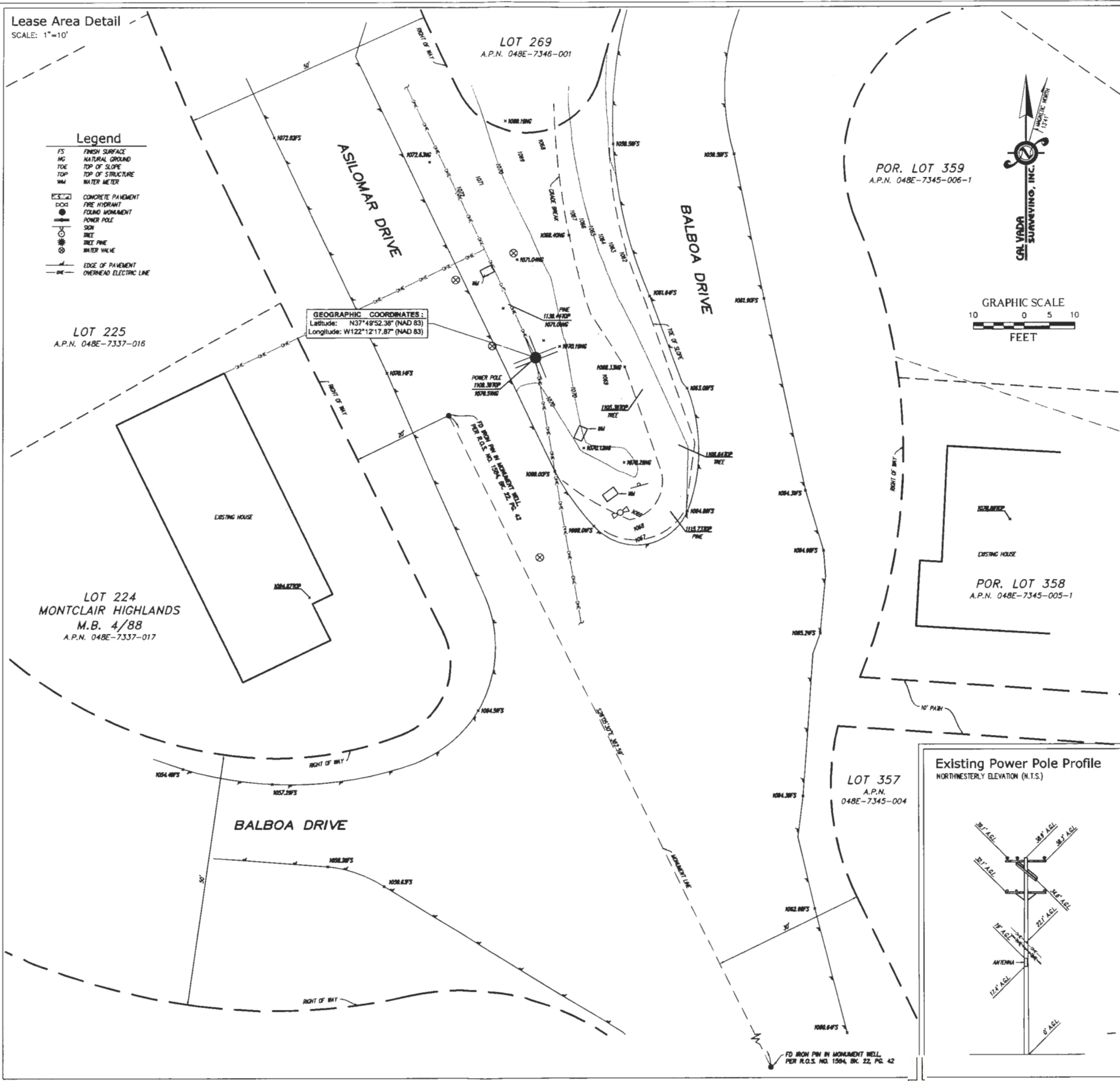
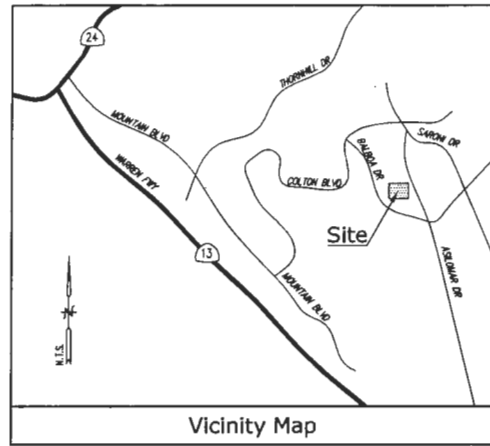
T-2

LEGEND

1 LOADING AND ANTENNA CABLE SCHEDULES

3 GENERAL CONSTRUCTION NOTES

4



Title Report
NOT APPLICABLE (RIGHT-OF-WAY)

Legal Description
NOT APPLICABLE (RIGHT-OF-WAY)

Assessor's Parcel No.
NOT APPLICABLE (RIGHT-OF-WAY)

Easements
NOT AVAILABLE

Geographic Coordinates at Existing Power Pole
1983 DATUM: LATITUDE 37° 48' 52.38" LONGITUDE 122° 12' 17.87" W
ELEVATION = 1070.5 FEET ABOVE MEAN SEA LEVEL

CERTIFICATION:
THE LATITUDE AND LONGITUDE SHOWN ABOVE ARE ACCURATE TO WITHIN +/- 15 FEET HORIZONTALLY AND THAT THE ELEVATIONS SHOWN ABOVE ARE ACCURATE TO WITHIN +/- 5 FEET VERTICALLY. THE HORIZONTAL DATUM (GEOGRAPHIC COORDINATES) IS IN TERMS OF THE NORTH AMERICAN DATUM OF 1983 (NAD 83) AND IS EXPRESSED IN DEGREES (°), MINUTES (') AND SECONDS ("). TO THE NEAREST HUNDREDTH OF A SECOND. THE VERTICAL DATUM (ELEVATIONS) IS IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND IS DETERMINED TO THE NEAREST TENTH OF A FOOT.

Basis of Bearings
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATES SYSTEM (CCS 83), ZONE 1, 1983 DATUM, DEFINED BY SECTIONS 8801 TO 8819 OF THE CALIFORNIA PUBLIC RESOURCES CODE.

Bench Mark
THE CALIFORNIA SPATIAL REFERENCE C.O.R.S "P224", ELEVATION = 1443.74 FEET (NAVD 88).

Date of Survey
DECEMBER 2, 2015

A&E DEVELOPMENT:

PDC

4555 LAS POSITAS RD., BLDG. A, SUITE B
LIVERMORE, CA 94551
TEL: (925) 606-5868

CONSULTANT:

CAL VADA
SURVEYING, INC.

411 JARVIS CT., SUITE 205, CORONA, CA 92680
Phone: 951-260-9980 Fax: 951-260-9748
Toll Free: 800-CALVADA www.calvada.com
JOB NO. 15803

LICENSURE:

REVISION:

REVISION:	DATE:	DESCRIPTION:
	BY:	
	12/04/15	SUBMITTAL
	AV	

SITE INFORMATION:

OAKS 05AJ

FRONT OF 1989 ASILOMAR DR.,
OAKLAND, CA 94811
ALAMEDA COUNTY

SHEET TITLE:

TOPOGRAPHIC
SURVEY

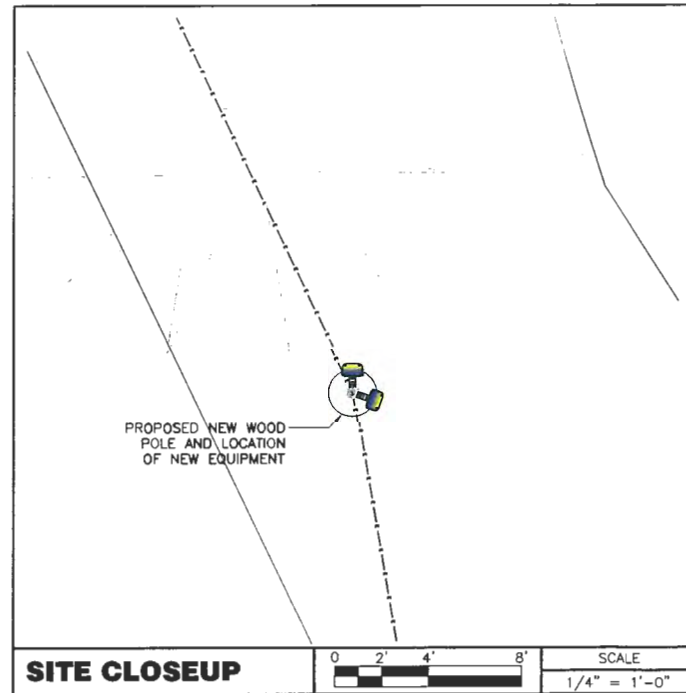
SHEET NUMBER:

C-1
SHEET 1 OF 1

SCALE NOTE:
 IF DIMENSIONS SHOWN ON PLAN DO NOT SCALE CORRECTLY,
 CHECK FOR REDUCTION OR ENLARGEMENT FROM ORIGINAL PLANS.

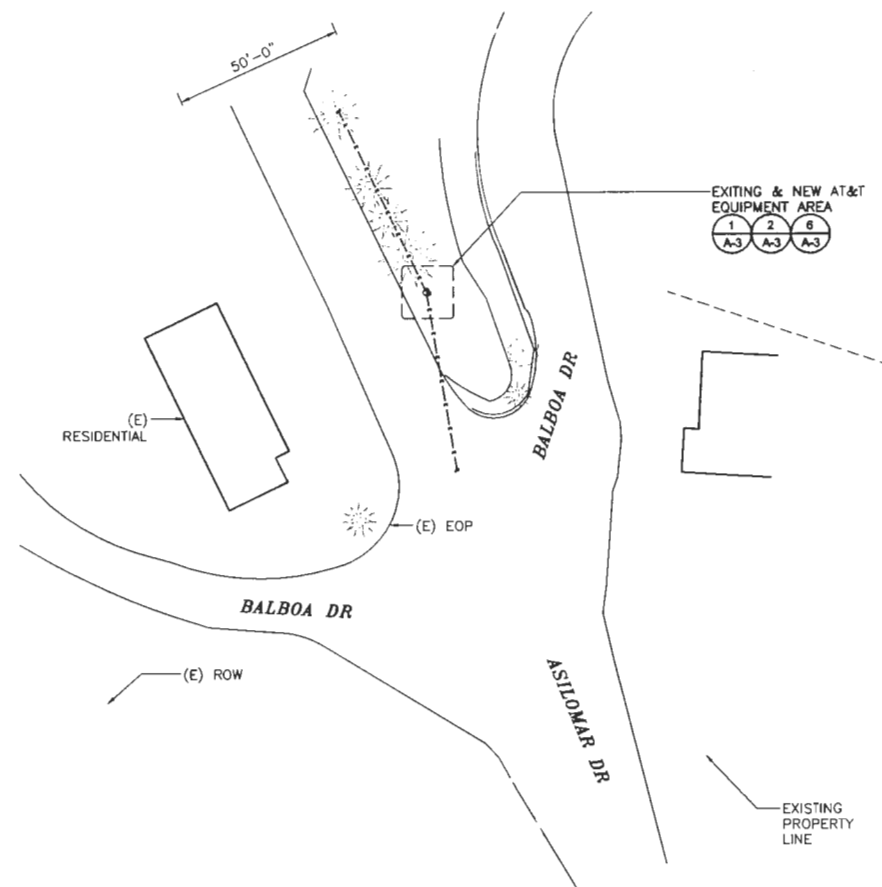
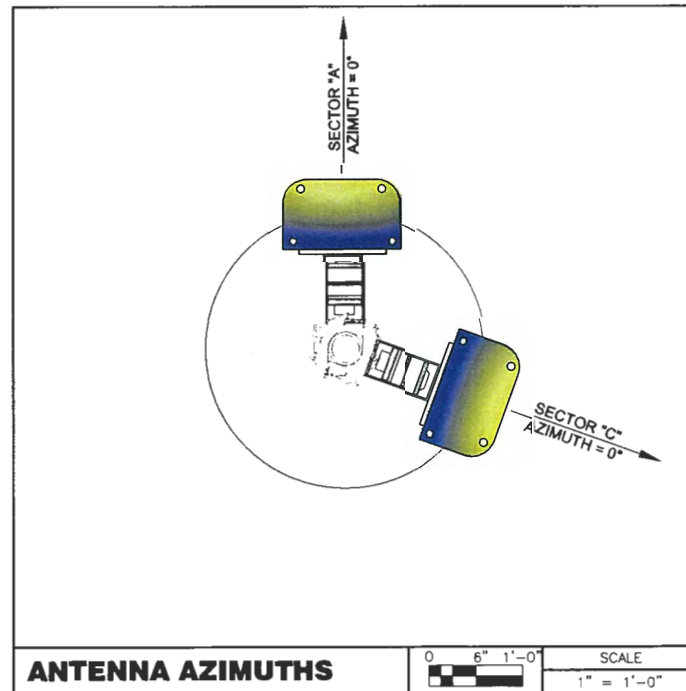
GENERAL NOTES:

- THIS PROPOSAL IS FOR THE MODIFICATION OF AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY CONSISTING OF INSTALLATION OF THE FOLLOWING: .
- THE EXISTING FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE.
- THE EXISTING FACILITY IS UNMANNED AND IS NOT FOR HUMAN HABITAT. (NO HANDICAP ACCESS IS REQUIRED).
- OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
- NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS PROPOSAL.
- OUTDOOR STORAGE AND SOLID WASTE CONTAINERS ARE NOT NEW.
- ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE CONSTRUCTION OPERATION.
- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTION REQUIRED FOR CONSTRUCTION.
- SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND DRAWINGS PROVIDED BY THE SITE OWNER. SUBCONTRACTOR SHALL NOTIFY AT&T OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.



SITE WORK GENERAL NOTES:

- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.
- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- ADD ELECTRICAL CONNECTIONS IN THE PUBLIC RIGHT OF WAY SHALL BE INSTALLED UNDERGROUND TO THE NEAREST UTILITY POLE.
- NO WORK SHALL BE DONE WITHIN THE PUBLIC RIGHT-OF-WAY WITHOUT THE PRIOR APPROVAL AND PERMIT FROM THE ENVIRONMENTAL AND PUBLIC WORKS MANAGEMENT DEPARTMENT - ADMINISTRATIVE SERVICES.
- CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ALL DAMAGED OFFSITE IMPROVEMENTS CAUSED BY CONSTRUCTION. CALL PUBLIC WORKS INSPECTOR FOR INSPECTION OF OFFSITE IMPROVEMENTS AT SUBSTANTIAL COMPLETION OF ONSITE WORK.
- NO CONSTRUCTION DEBRIS SHALL BE SPILLED OR STORED ONTO PUBLIC RIGHT-OF-WAY.
- NO RUNOFF SEDIMENT OR WASTES IS ALLOWED IN WATER LEAVING THE SITE.
- ALL SITE UTILITIES SHALL BE CONSTRUCTED UNDERGROUND TO THE NEAREST POLE.
- ALL LABOR, EQUIPMENT AND MATERIAL REQUIRED FOR OFF-SITE IMPROVEMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.



PROJECT INFORMATION:
OAKHILLS AT&T SOUTH NETWORK NODE 054J
 FRONT OF 1989 ASILOMAR DR.
 OAKLAND, CA 94611

CURRENT ISSUE DATE:
 01/14/2016

ISSUED FOR:
 100% ZONING DRAWINGS

REV.	DATE	DESCRIPTION	BY
A	12/21/15	90% ZD's	JMC
0	01/14/16	100% ZD's	JMC

PLANS PREPARED BY:
 PDC CORPORATION

 4555 LAS POSITAS RD, BLDG. A, STE. B
 LIVERMORE, CA 94551
 TEL: (925) 606-5868

CONSULTANT:

 3030 WARREN MILE RD, SUITE 340
 Lisle, IL 60532

DRAWN BY: JMC **CHK.:** PP **APV.:** SAS

LICENSER:

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
A-1

SCALE NOTE:
IF DIMENSIONS SHOWN ON PLAN DO NOT SCALE CORRECTLY, CHECK FOR REDUCTION OR ENLARGEMENT FROM ORIGINAL PLANS.

DISCLAIMER NOTE:
PDC GENERATED THESE ELEVATIONS WITHOUT USING A TOPOGRAPHIC SURVEY. BUILDING STRUCTURE AND POLE HEIGHTS SHOWN ON THE PLANS ARE ESTIMATED. PDC HIGHLY RECOMMENDS GETTING A TOPOGRAPHIC SURVEY FOR THE PROPERTY TO VERIFY THE MEASUREMENTS AND ACCURACY.

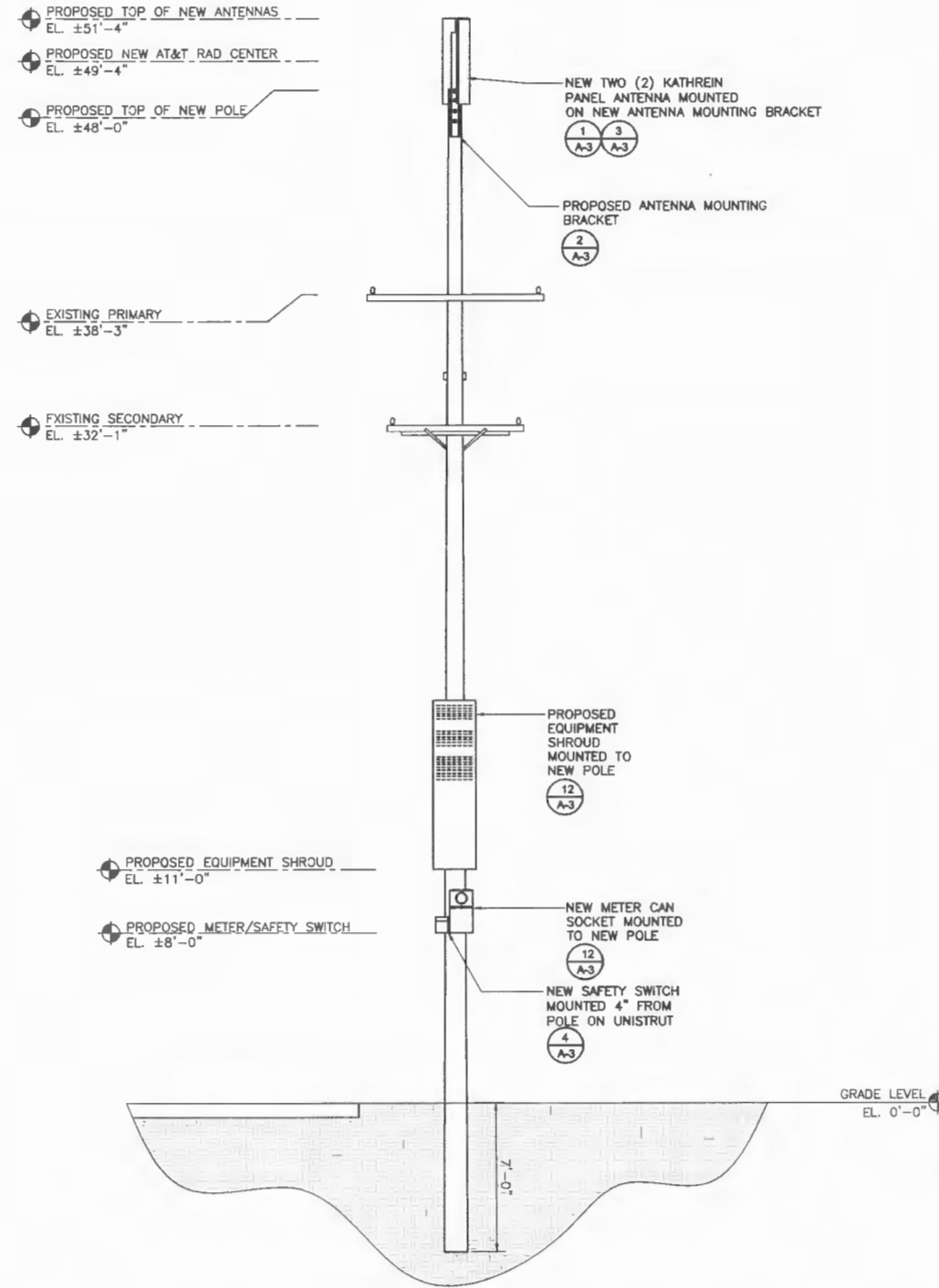
COMMUNICATIONS MAKE-READY

1. INSTALL METER SAFETY SWITCH 4" OFF POLE @ 7:00 POSITION
2. INSTALL NEW EQUIPMENT SHROUD @ 6:30 POSITION
3. INSTALL METER @ 5:30 POSITION

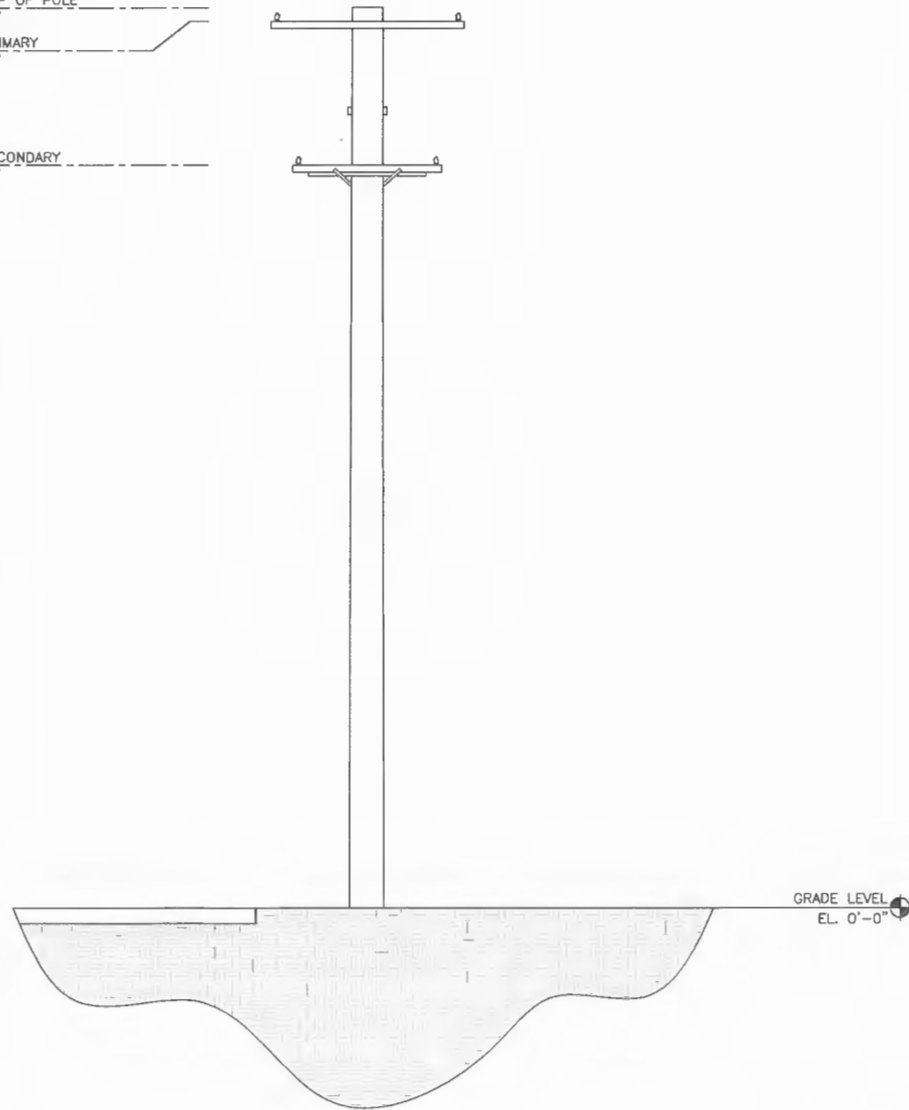
POWER MAKE-READY

1. PROVIDE 3-WIRE SINGLE PHASE, 100 AMP SERVICE TO 1" PG&E CONDUIT AT 7:30 POSITION TO METER SOCKET FROM SECONDARY 38'-3"
2. INSTALL NEW CL3 55' WOOD POLE.
3. INSTALL NEW ANTENNA MOUNTING BRACKET ON POLE TOP AT 50'-5."
4. INSTALL NEW TWO (2) ANTENNAS
5. INSTALL NEW COMBINERS AND POWER CONDUIT ON NEW WOOD POLE.

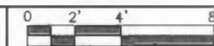
MAKE-READY NOTES



- EXISTING TOP OF POLE
EL. ±38'-9"
- EXISTING PRIMARY
EL. ±38'-3"
- EXISTING SECONDARY
EL. ±32'-1"



EXISTING SOUTH EAST



SCALE
1/4" = 1'-0"

1

NEW SOUTH EAST ELEVATION



SCALE
1/4" = 1'-0"

2



PROJECT INFORMATION:

**OAKHILLS AT&T
SOUTH NETWORK
NODE 054J**
FRONT OF 1989 ASILOMAR DR.
OAKLAND, CA 94611

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PLANS PREPARED BY:



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LIVERMORE, CA 94551
TEL: (925) 606-5868

CONSULTANT:



3030 WARRENVILLE RD, SUITE 340
LISLE, IL 60532

DRAWN BY: CHK.: APV.:

JMC	PP	SAS
-----	----	-----

LICENSER:

SHEET TITLE:

**EXISTING & NEW
SOUTH ELEVATIONS**

SHEET NUMBER:

A-2



7001 EXECUTIVE PARKWAY
SAN RAMON, CA 94583

PROJECT INFORMATION:

**OAKHILLS AT&T
SOUTH NETWORK
NODE 054J**

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CONSULTANT:



3030 WARRENVILLE RD, SUITE 340
Lisle, IL 60532

DRAWN BY: CHK.: APV.:

JMC PP SAS

LICENSER:

SHEET TITLE:

**EQUIPMENT AND
CONSTRUCTION
DETAILS**

SHEET NUMBER:

A-3

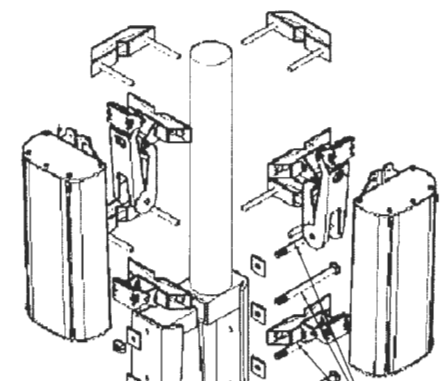
PROPOSED KATHREIN PANEL ANTENNA

ANTENNA MOUNTING BRACKET ASSEMBLY

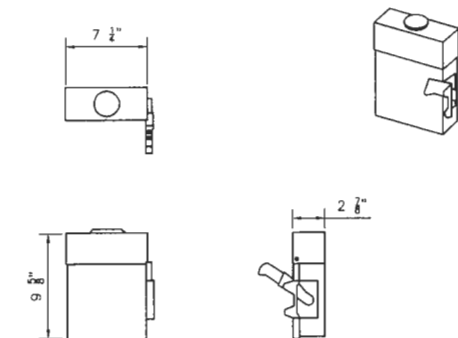
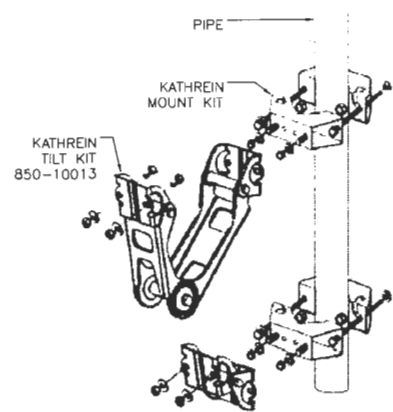
PROPOSED ANTENNA MAST

SEAL DUCT ONCE COAXIAL CABLES ARE IN PLACE

PROPOSED 3" SCH 80 U-GUARD

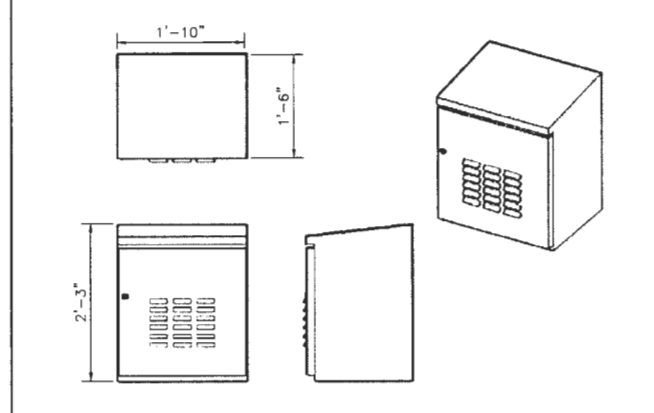
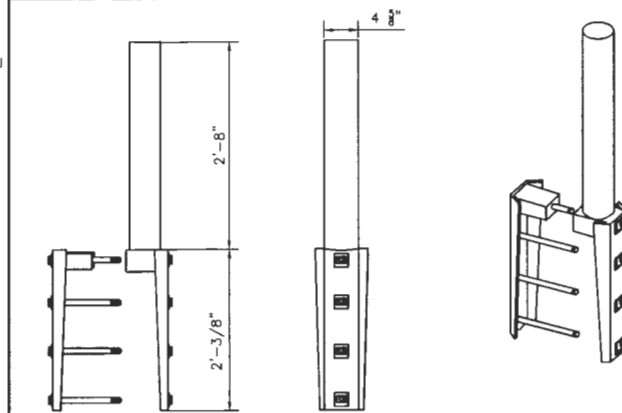


PROPOSED 3/8" THRU BOLT ASSY.



ANTENNA MOUNTING BRACKET 3

SQUARE D D321NRB SAFETY SWITCH 4

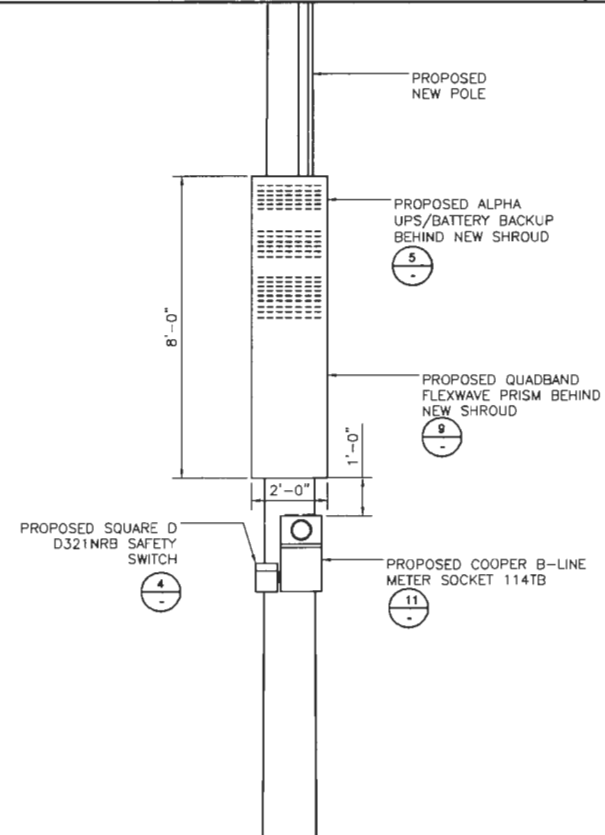


ANTENNA CONFIGURATION 1

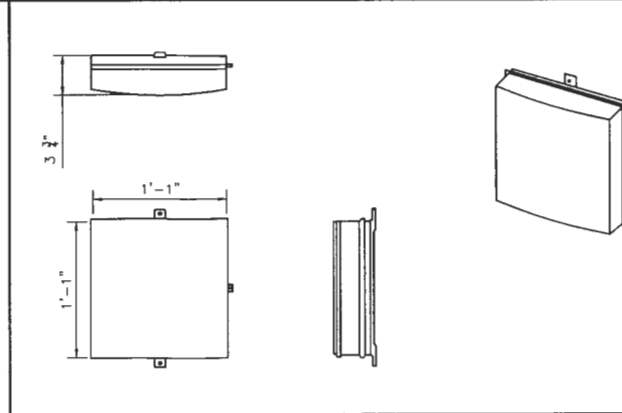
POLE TOP ANTENNA ASSEMBLY 2

POLE TOP ANTENNA MAST 5

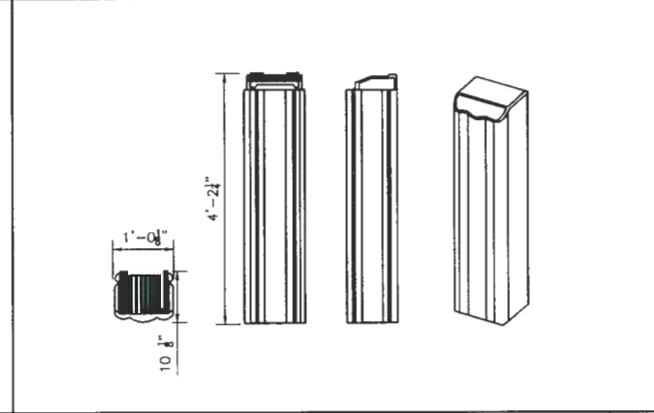
ALPHA MMOE UPS/BATTERY BACKUP 6



RF WARNING SIGNAGE 8



AFL OPTINID 760 XL 9



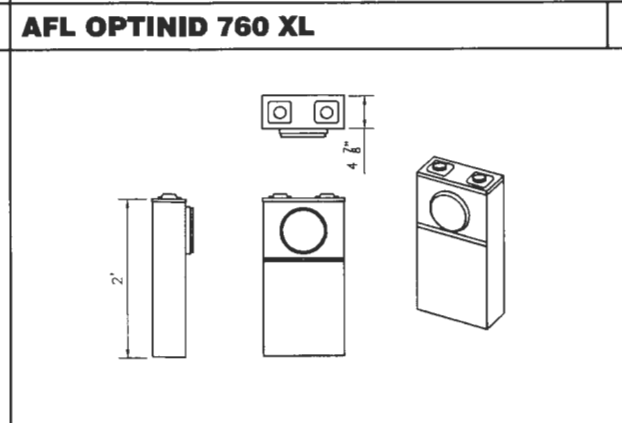
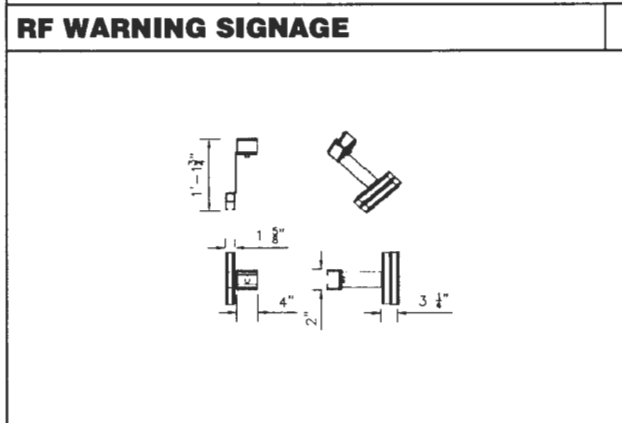
QUADBAND FLEXWAVE PRISM 10

EQUIPMENT CONFIGURATION 7

LADDER BRACKET 11

COOPER B-LINE METER SOCKET 114TB 12

KATHREIN PANEL ANTENNA 13



PROJECT INFORMATION:

**OAKHILLS AT&T
SOUTH NETWORK
NODE 054J**
FRONT OF 1989 ASILOMAR DR.
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CONSULTANT:



3030 WARRENVILLE RD, SUITE 340
LISLE, IL 60532

DRAWN BY: CHK.: APV.:

JMC PP SAS

LICENSER:

SHEET TITLE:

**POWER & RF SAFETY
PROTOCOLS**

SHEET NUMBER:

S1



AT&T oDAS Shutdown Procedure

**PROCEDURE TO DE-ENERGIZE RADIO FREQUENCY (RF) SIGNAL
EMERGENCY and NON-EMERGENCY WORK REQUIRING RF SIGNAL
SHUTDOWN**

(A) PG&E personnel SHALL contact AT&T Mobility Switch Center to notify them of an emergency shutdown 800-638-2822. Dial option 9 for cell site "Related" emergency's then option 1. Provide the following information when calling or leave a voicemail:

- (1) Identify yourself and give callback phone number.
- (2) Site number and if applicable site name (located on the shutdown box)
- (3) Site address and location
- (4) Nature of emergency and site condition

(B) Pull Disconnect Handle down to the Open or "OFF" Position. The RF signal will shut down within a few seconds. A visual inspection of the interior blade will confirm that both incoming AC Lead and Battery Backup are disconnected.

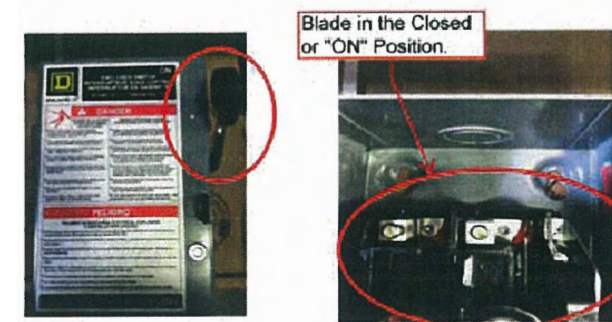
(C) Notify AT&T (New Cingular) Switch Center when the emergency work is completed.

See reverse side to view photo of the "on" and "off" position.

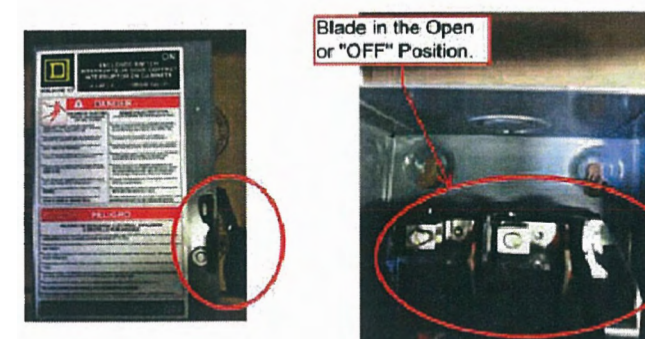
FRONT



Switch in the Closed Position ("ON")



Switch in the Open Position ("Off")



BACK

Existing



Proposed

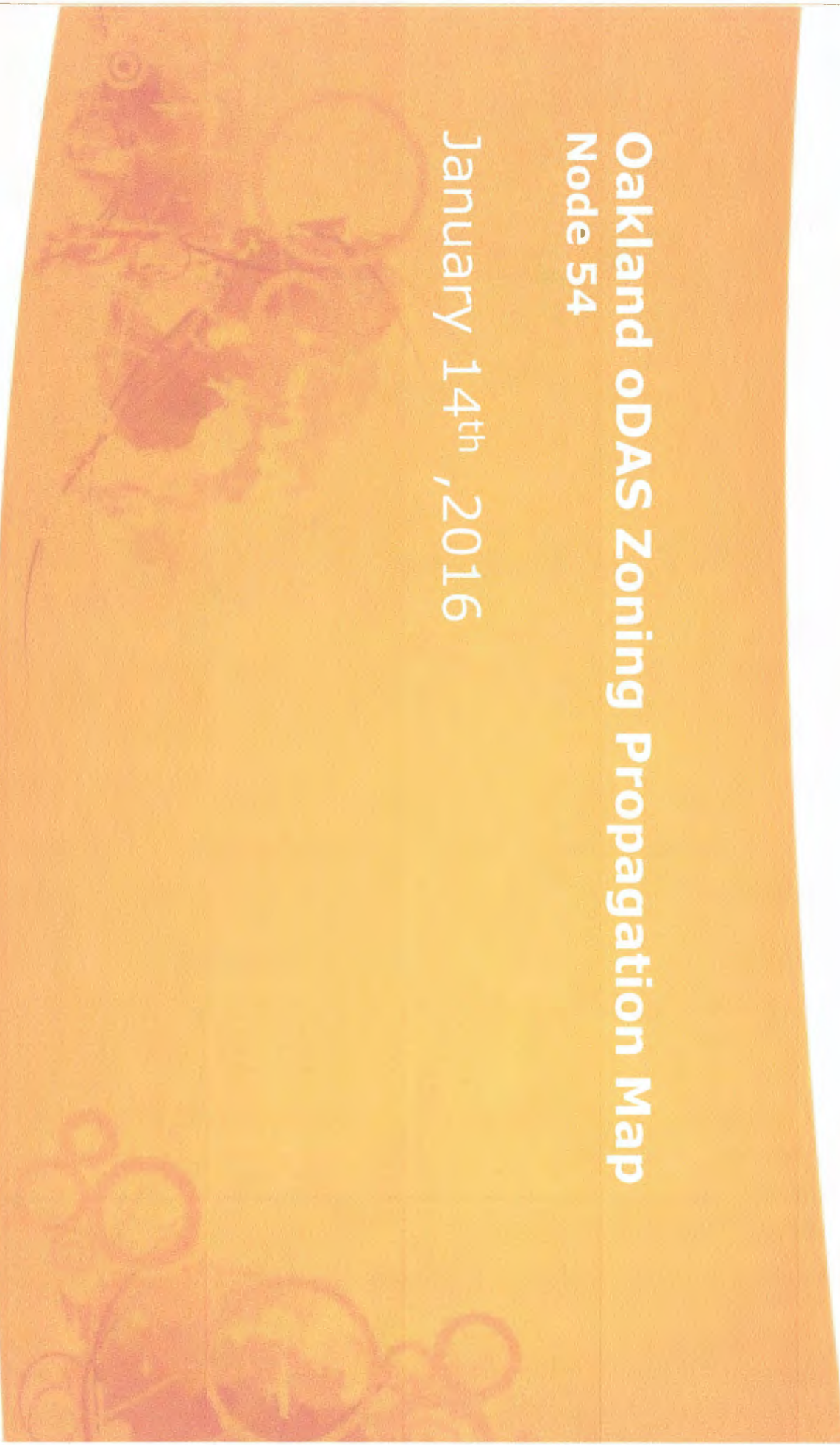


*Proposed AT&T
Antennas & Equipment*

view from Asilomar Drive looking northwest at site

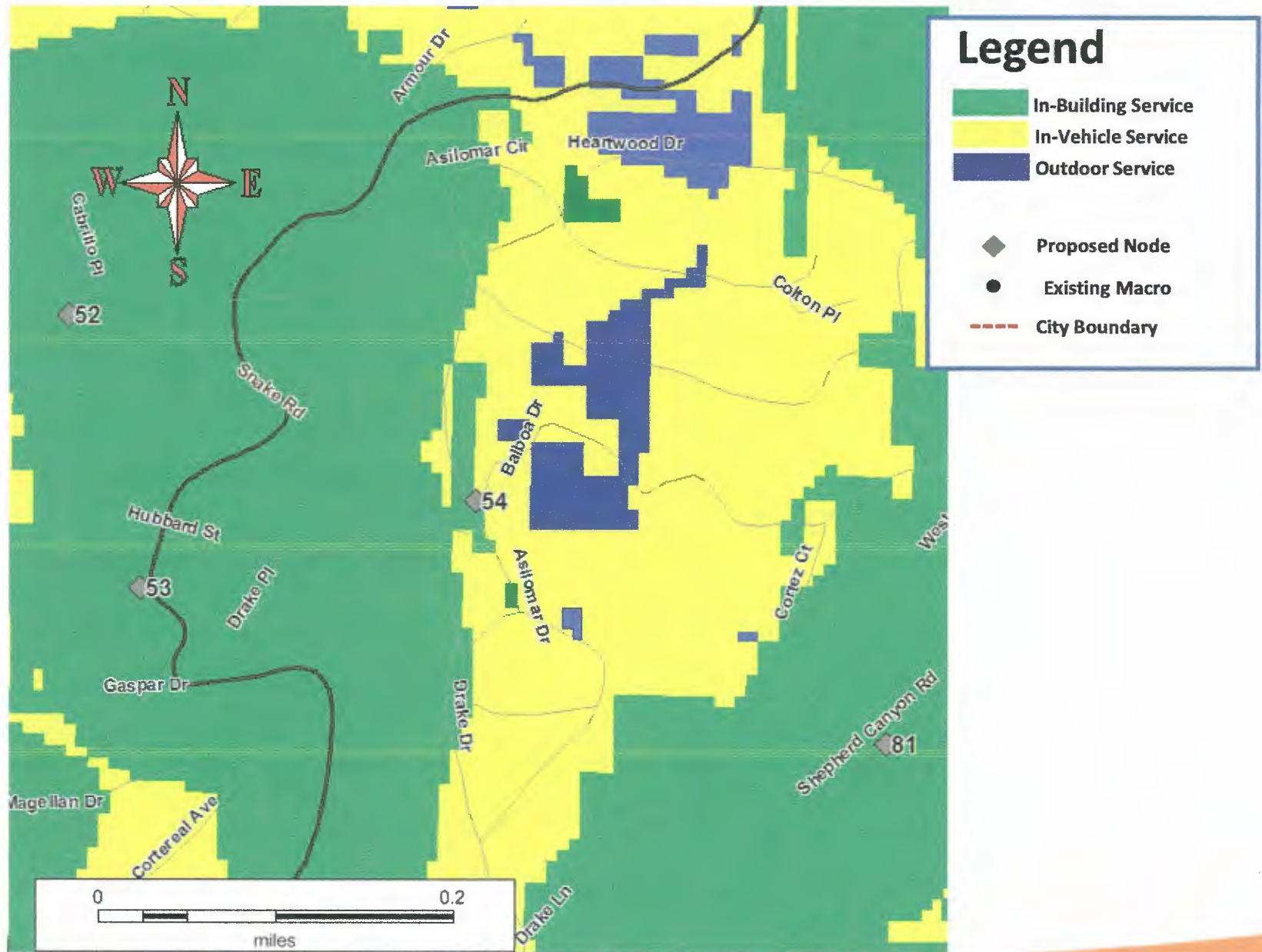
Oakland oDAS Zoning Propagation Map
Node 54

January 14th, 2016



Existing UMTS 850 Coverage

Exhibit 2

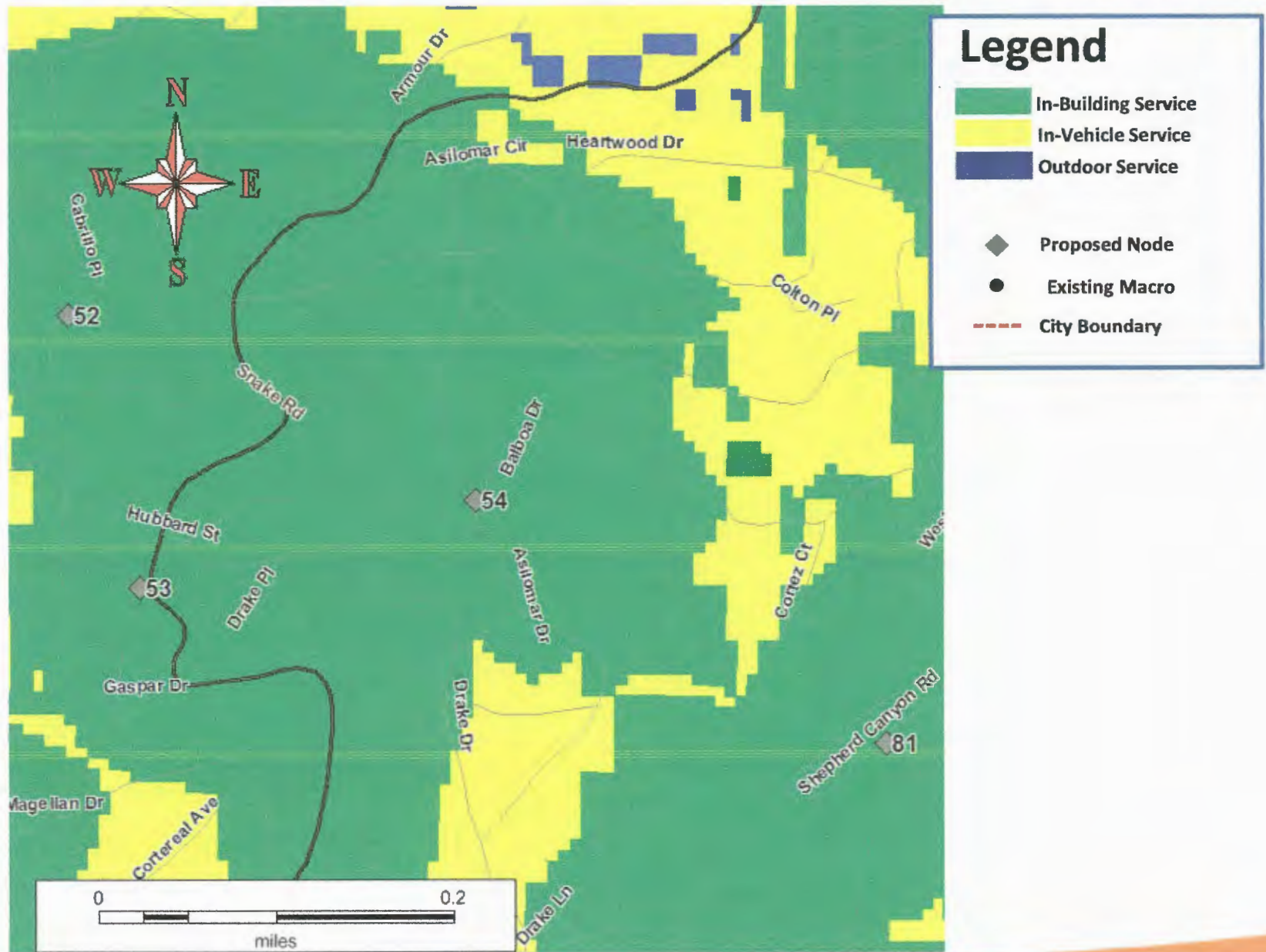


January 14th, 2016



Proposed UMTS 850 Coverage (With Node 54)

Exhibit 3

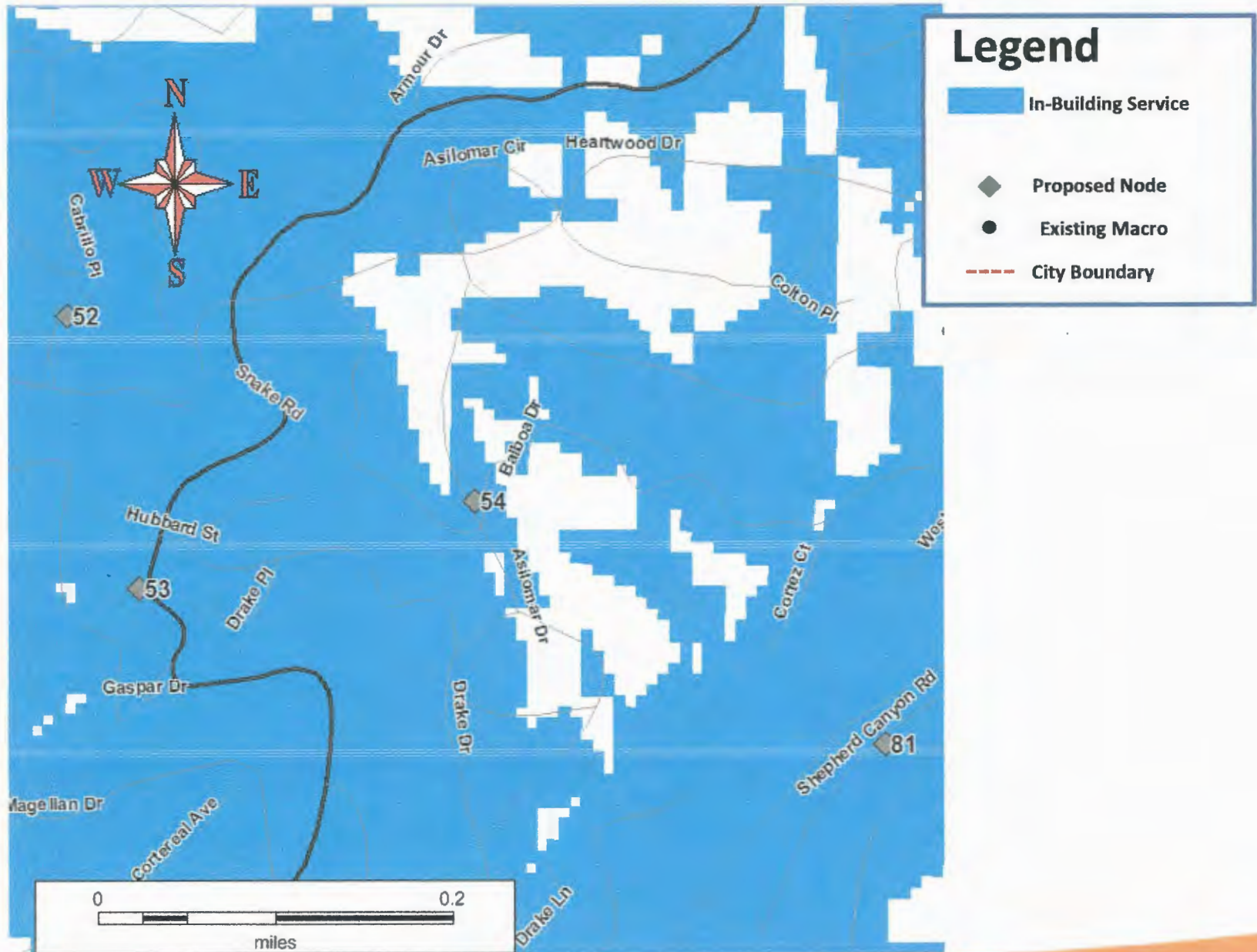


January 14th, 2016



Existing LTE 700 Coverage

Exhibit 4

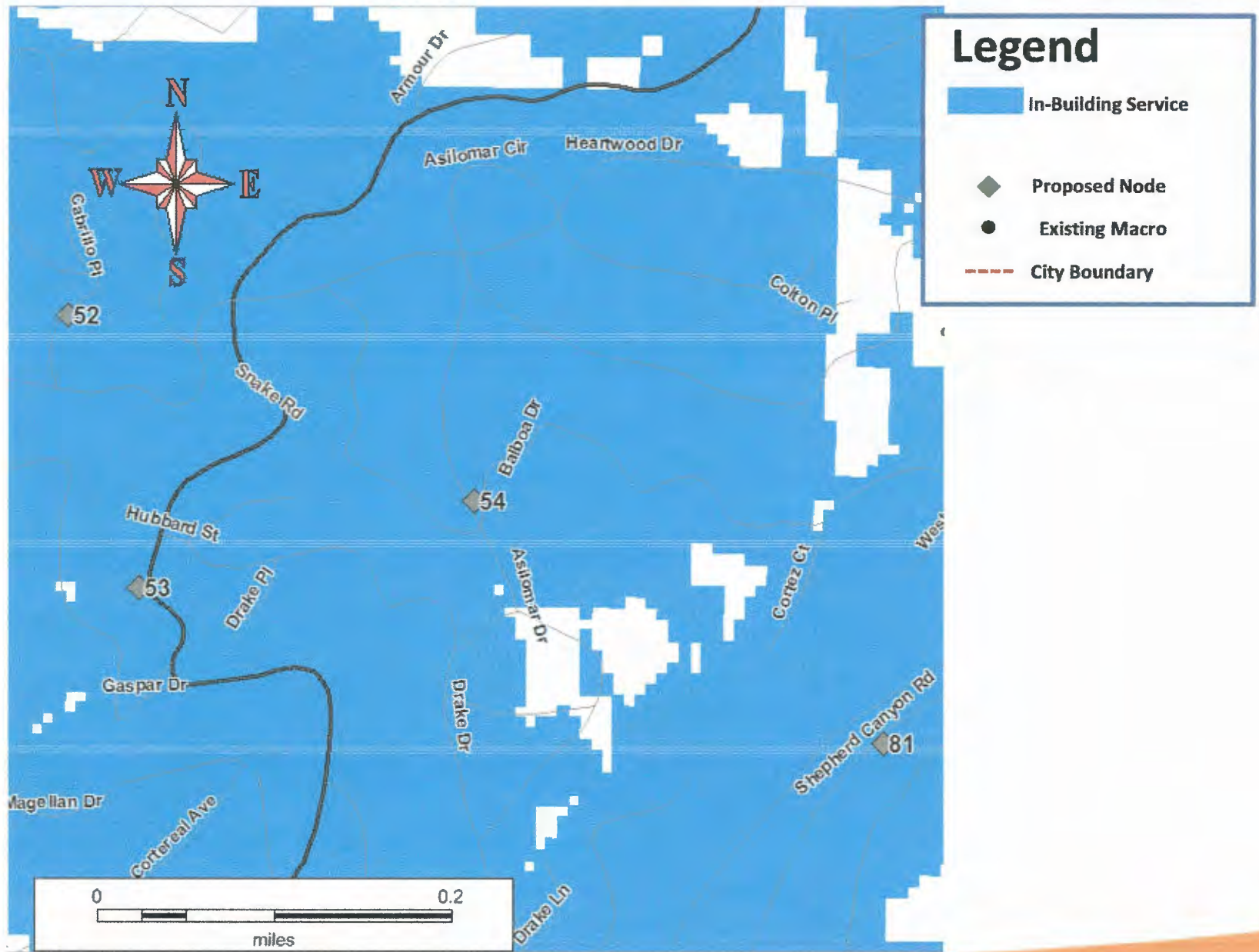


January 14th, 2016



Proposed LTE 700 Coverage (With Node 54)

Exhibit 5



January 14th , 2016



**AT&T Mobility • DAS Node No. OAKS-054J
1989 Asilomar Drive • Oakland, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate a distributed antenna system (“DAS”) node proposed to be located near 1989 Asilomar Drive in Oakland, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

Executive Summary

AT&T proposes to install two directional panel antennas on the utility pole sited near 1989 Asilomar Drive in Oakland. 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)	5–80 GHz	5.00 mW/cm ²	1.00 mW/cm ²
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	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	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

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

**AT&T Mobility • DAS Node No. OAKS-054J
1989 Asilomar Drive • Oakland, California**

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called “radios” or “channels”) that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. 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 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. 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 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 AT&T, including zoning drawings by PDC Corporation, dated January 4, 2016, it is proposed to install two Kathrein Model 840-10525 directional panel antennas on top of the existing 39-foot utility pole sited in the public right-of-way across the street from the residence located at 1989 Asilomar Drive in Oakland. The antennas would employ 2° downtilt,* would be mounted at an effective height of about 49½ feet above ground, and would be oriented toward 0°T and 110°T. The maximum effective radiated power in any direction would be 185 watts, representing simultaneous operation at 80 watts for PCS, 55 watts for cellular, and 50 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.

* Assumed for the purpose of the study.

**AT&T Mobility • DAS Node No. OAKS-054J
1989 Asilomar Drive • Oakland, California**

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.0011 mW/cm², which is 0.22% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby residence is 0.24% 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.

Recommended Mitigation Measures

Due to their mounting locations and height, the AT&T antennas would not be accessible to unauthorized persons, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training, to include review of personal monitor use and lockout/tagout procedures, be provided to all authorized personnel who have access to the roof, including employees and contractors of AT&T and of the City. No access within 3 feet directly in front of the antennas themselves, such as might occur during certain maintenance activities high on the pole, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs[†] be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach to persons who might need to work within that distance.

Conclusion

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of this AT&T node near 1989 Asilomar Drive in Oakland, 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. Training authorized personnel and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

† Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (e.g., a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required. Signage may also need to comply with the requirements of California Public Utilities Commission General Order No. 95.

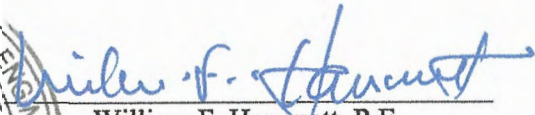
AT&T Mobility • DAS Node No. OAKS-054J
1989 Asilomar Drive • Oakland, California

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2017. 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.

January 14, 2016



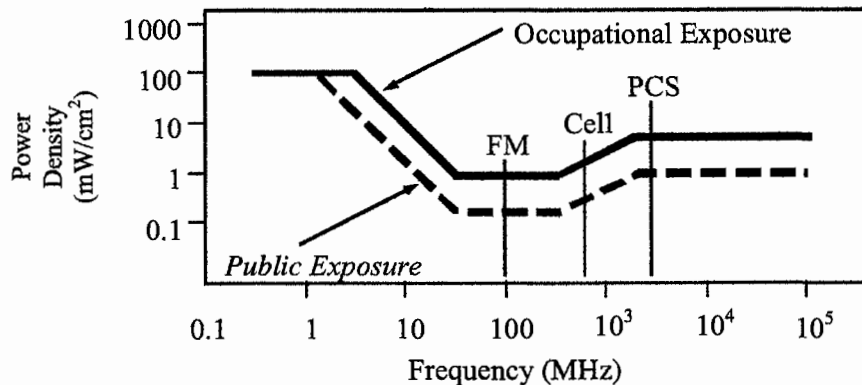

William F. Hammett, P.E.
707/996-5200

FCC Radio Frequency Protection Guide

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

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

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



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

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

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

Near Field.

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

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

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

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

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

D = distance from antenna, in meters,

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

η = aperture efficiency (unitless, typically 0.5-0.8).

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

Far Field.

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

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm²,

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

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

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

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