Case File Number: PLN18-070 March 7, 2018

Location: The public right of way adjacent to 394 40th St on a JPA Utility

Telephone Pole (See map on reverse)

Assessor Parcel Numbers: 012 100700100 (nearest lot adjacent to the project site)

Installation of a wireless "small cell site" telecommunication facility for AT&T on top of an existing 43' wooden utility PG& E pole located in the public right-of-way, resulting in a pole totaling 52', 4" in height

Proposal: the public right-of-way, resulting in a pole totaling 52'-4" in height including the extension. The project involves installation of a 2'-1" tall

canister antenna mounted on the top of the existing pole; two radio units

and related equipment.

Applicant: Matt Yergovich for New Cingular Wireless PCS, LLC (dba AT&T)

Contact Person/ Phone Matt Yergovich

Number: (415) 596-3474

Owner: Pacific Gas & Electric (PG&E)

Case File Number: PLN18-070

Planning Permits Required: Major Design Review to install a wireless Macro Telecommunications

Facility on a existing PG&E pole located in the public right -of- way in

a residential zone.

General Plan: Urban Residential

Zoning: RU-5 Urban Residential Zone

Environmental Exempt, Section 15301 of the State CEQA Guidelines; minor additions

Determination: and alterations to an PG&E utility pole; Section 15303: new

construction or conversion of small structures; Section 15183: projects

consistent with a community plan, general plan or zoning.

Historic Status: No Historic Record – Utility Pole

City Council District: 1

Date Filed: January 1, 2018

Finality of Decision: Appealable to City Council within 10 Days

For Further Information: Contact case planner Danny Thai at (510) 238-3584 or

dthai@oaklandnet.com

SUMMARY

The project applicant (Matt Yergovich for New Cingular Wireless PCS, LLC) is proposing to install a wireless telecommunication facility located in the public right-of-way near 394 40th St. The project involves installation of a bayonet extension on top of an existing 43' tall wood utility pole increasing the total height to 52'-4" tall. The project also includes installation of 1) one antenna within a canister shroud measuring 2'-1" tall and 10.75" in diameter at a height of 50'-4"; 2) two radio units mounted at a height of 14'-5"; 3) two equipment boxes; and 4) a disconnect / breaker box mounted 10' above ground. Major Design Review is required for the installation of a new Macro Telecommunications Facility in a residential zone. The proposed installation on top of the existing pole, antenna and associated equipment are similar to other utility poles and equipment within the same block and around the City. The proposed pole is located adjacent to a commercial building and is across street from a mixed-use building. The antenna shroud and associated equipment will be painted grey or brown to match the pole and/or other utilities located on the pole. As result, the proposed telecommunication facility is an appropriate location and would not significantly increase negative visual impacts to adjacent neighboring residential properties. The project meets all the required findings for approval of the project.

CITY OF OAKLAND PLANNING COMMISSION



Case File: PLN 18070

Applicant: Matt Yergovich for New Cingular Wireless PCS, LLC (dba AT&T)

Address: The public right of way adjacent to 394 40th St

on a JPA Utility/Telephone Pole

Zone: RU-5

Case File Number: PLN18070

Page 3

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. Specifically:

- 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 Federal Communications Commission (FCC) standards in this regard. (See 47 U.S.C. Section 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 (See 47 U.S.C.332(c)(7)(B)(ii) and 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, consult the following: Competition & Infrastructure Policy Division (CIPD) of the Wireless Telecommunications Bureau, main division number: (202) 418-1310. https://www.fcc.gov/general/competition-infrastructure-policy-division-wireless-telecommunications-bureau

PROPERTY DESCRIPTION

The existing 43' tall wooden PG&E utility pole is located in the City of Oakland public right-of-way adjacent to tennis courts and is across street from the residence at 394 40th St.

Case File Number: PLN18070

Page 4

PROJECT DESCRIPTION

As shown in Attachment C and D, the project applicant proposes to:

- Installation of a bayonet extension on top of an existing 43' tall wood utility pole for a total height of 52'-4",
- Install one antenna within a canister shroud measuring 2'-1" tall and 10.75" in diameter at a height of 50'-4",
- Install two radio units and equipment boxes mounted at a height of 14'-5",
- Install a disconnect / breaker box mounted 10' above ground, and
- Paint the proposed antennas and associated equipment grey or brown to match the pole and/or other utilities located on the pole.

No portion of the telecommunication facilities will be located on the ground within City of Oakland public right-of-way. The proposed antenna and associated equipment will not be accessible to the public.

GENERAL PLAN ANALYSIS

The site is classified Urban Residential per the Oakland General Plan's Land Use and Transportation Element (LUTE). The Urban Residential classification is intended to create, maintain, and enhance areas of the City that are appropriate for multi-unit, mid-rise or high-rise residential structures in location with good access to transportation, and other services.

The proposed unmanned wireless telecommunication facility will not adversely affect and detract from the characteristics of the neighborhood.

ZONING ANALYSIS

The site is located in the RU-5 zone. The intent of the RU-5 Zone is to create, maintain, and enhance areas of the City that are appropriate for multi-unit, mid-rise, and high rise residential structures and ground floor neighborhood businesses on the City's major corridors.

Section 17.136.040 and 17.128.070 of the City of Oakland Planning Code requires a Major Design Review permit for Macro Telecommunication facilities that are attached to utility poles in the RU-5 Zone or that are located within one hundred (100) feet of the boundary of any residential zone. Special findings are also required for Design Review approval to ensure that the facility is concealed to the greatest extent possible. The project design is discussed later in the Key Issues section of this report, and the required findings for Major Design Review are listed and included in staff's evaluation later in this report.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines list the projects that qualify as categorical exemptions from environmental review. The proposed project is categorically exempt from the environmental review requirements pursuant to Section 15301, minor additions and alterations to an existing PG&E utility pole; Section 15303, new construction or conversion of small structures, and Section 15183, projects consistent with the General Plan or Zoning.

KEY ISSUES AND IMPACTS

Case File Number: PLN18070

Page 5

Project Site

Section 17.128.110 of the City of Oakland Telecommunication Regulations requires that new wireless facilities shall generally be located on designated properties or facilities in the following ranked 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-CE3 and D-C-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 sited on an A, B or C ranked preference do not require a site alternatives analysis. Since the proposed project involves the installation of new antenna and radio units on an existing utility pole and installation within an RU-5 Zone, the proposed project meets preference B, and a site alternatives analysis is not required. However, applicant has provided a site alternative analysis (Attachment E).

Alternative Site Analysis:

The project is located in an area with residential and commercial structures. The project applicant considered alternative sites on other utility poles in this area but none of these sites are as desirable from a service coverage perspective or from an aesthetics perspective to minimize visual impacts. The proposed project is in an underserved area. The proposed location is approximately equidistant from other Distributed Antenna Systems (DAS) nodes proposed in the surrounding area so that service coverage can be evenly distributed.

Staff has reviewed the applicant's alternative sites analysis and determined that the site selected conforms to the telecommunication regulation requirements. In addition, staff agrees that no other sites are more suitable.

Project Design

Section 17.128.120 of the City of Oakland Telecommunications Regulations requires 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 and B ranked preference do not require an alternative design analysis. Facilities designed to meet a C through F ranked preference, inclusive, must submit an alternative design

Case File Number: PLN18070

Page 6

analysis as part of the required application materials. The design alternatives analysis shall, at a minimum, consist of:

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).

Since the proposed project does not meet preference A and B, an alternative design analysis is required.

Alternative Design Analysis:

The project applicant submitted an alternative design analysis (Attachment E). The analysis evaluated whether the equipment could be under grounded and concealed from view. Unfortunately, this is not possible because there is insufficient right-of-way space for the necessary equipment access and the equipment could be compromised by rainwater saturation. The proposed design is a good option because the facility is located where a signal can be adequately propagated without obstruction, which could not have been the case if the antenna was located on a building and concealed.

Planning staff has reviewed the applicant's alternative design analysis and determined that the site selected conforms to the telecommunication regulation requirements. Specifically, given the flat topography, streamlined equipment design and location of the existing pole near the corner of the block, the facility will blend in with the existing utility apparatus on the pole. In addition, the proposed new antenna is located within a shroud screening. Both the antenna and the radio units will be attached above head height, 50.4' above the ground. The shroud and radio units will be painted grey to match the other utilities or brown to match the pole. Finally, the resulting installation will be a taller pole in order to avoid transmission interference between the PG&E and telecommunication equipment.

Project Radio Frequency Emissions Standards

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

- a. The telecommunications regulations require that the applicant submit written documentation demonstrating that the emission from the proposed project are within the limits set by the Federal Communications Commission.
- b. 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.

In the analysis prepared by Hammett & Edison, Inc. (Attachment F), the proposed project was evaluated for compliance with appropriate guidelines limiting human exposure to radio frequency electromagnetic fields. According to the report, the project will comply with the prevailing standards for limiting public exposure to radio frequency energy, and therefore, the proposed site will operate within the current acceptable thresholds as established by the Federal government or any such agency that may be subsequently authorized to establish such standards. The RF emissions report, states that the proposed project will not cause a significant impact on the environment. Additionally, staff recommends that, prior to the final building permit sign off, the applicant submit 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 the required findings for approval. The proposal will provide an essential telecommunication service to the community and the City of Oakland at large. It will also be available to emergency services such as police, fire department and emergency response teams. Staff believes that the proposal is designed to meet the established zoning and telecommunication regulations and recommends supporting the Major Design Review application.

RECOMMENDATIONS:

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

Prepared by:

Danny Thai Planner I

Reviewed by:

Robert Merkamp

Acting Zoning Manager

Approved for forwarding to the City Planning Commission

Darin Ranelletti, Deputy Director Planning and Building Bureau

ATTACHMENTS:

- A. Findings
- B. Conditions of Approval
- C. Project Plans
- D. Photo-simulations
- E. Site/Site Design Alternatives Analysis
- F. RF Emissions Report
- G. CPUC Compliance Letter
- H. Proof of public notification posting
- I. Public comments received by date of packet preparation

Case File Number: PLN18070

Page 8

ATTACHMENT A: FINDINGS FOR APPROVAL

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 involves a bayonet extension installation above an existing 43' tall wooden utility pole to result in a 52.4' tall PG&E utility pole as well as installation of one antenna within an antenna shroud and two radio units mounted above the cabinet, breaker box and smart meter. The pole will be similar to other wood PG&E poles found in the area and throughout the City. In addition, the proposed antennas and radio units will be typical of the utility equipment found on these poles, located high up on the pole, oriented toward the street and painted grey or brown to match the pole or other equipment. The resulting pole will be taller with the bayonet extension but the additional height is necessary to avoid interference between the PG&E and telecommunication equipment. Therefore, the facility will not adversely affect and detract from the residential characteristics of the neighborhood.

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 residential area. The facility will be camouflaged by the antenna canister, located on top of utility pole and painted grey or brown to blend in with the existing surrounding area. These measures will result in the proposal having minimal visual impacts on public views and protecting the value of private and public investments in the area. Service will also be available to emergency services such as police, fire department and emergency response teams.

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 site is classified Urban Residential per the Oakland General Plan's Land Use and Transportation Element (LUTE). The Urban Residential classification is intended to create, maintain, and enhance areas of the City that are appropriate for multi-unit, mid-rise or high-rise residential structures in location with good access to transportation, and other services.

Section 17.128.120 of the City of Oakland Telecommunications Regulations describes the design criteria for wireless facilities. In general, these facilities should either be concealed from view or not visible from the public right of way. Since the project did not meet either ranked criteria, but did meet criteria C as described above, an alternative site design study needed to be undertaken. The proposed antenna and associated related equipment are compatible with and typical of utility equipment on these poles. The

proposed antenna will be placed on top of the utility pole within public right-of-way and is located across the street from the residences at 394 40th St and painted to match either the pole or utilities. The pole will be taller to accommodate the bayonet extension but is necessary to avoid interference between the PG&E and telecommunication equipment. As result, the proposal is consistent with telecommunication regulation requirements, is in an appropriate location, and of an appropriate design that would not significantly increase negative visual impacts to adjacent neighboring residential properties

17.128.070(B) DESIGN REVIEW CRITERIA FOR MACRO FACILITIES

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

The antennas and equipment will be painted grey to match the existing utility equipment or brown to match the existing wooden utility pole in order to minimize the potential visual impact.

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 and equipment will not be mounted onto an architecturally significant structure but onto a wooden utility pole similar to other poles in the City and on the block.

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 placed above head height, and vertically in line with the proposed utility pole. The equipment will be painted to match the pole or utility equipment and blend with the surroundings.

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 antenna will be located within a shroud attached to an existing utility pole and painted to match the proposed wooden pole or the other utilities in order to minimize visual impacts on the neighboring properties.

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

See above finding # 4

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.

This finding is not applicable as the antenna will not be attached to a building.

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 proposed screened antenna will be mounted at a height of 50.4' on top of an existing PG&E utility pole and will not be accessible to the public due to its location. The radio unit equipment will be attached to the pole more than 10' above the ground.

Case File Number: PLN18070

Page 10

ATTACHMENT B: 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, and the approved plans dated **September 26**, 2017 and submitted on **January 31**, 2018 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

Case File Number: PLN18070

Page 11

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.

10. Job Site Plans

Ongoing throughout demolition, grading, and/or construction

Page 12

At least one (1) copy of the stamped approved plans, along with the Approval Letter and Conditions of Approval, shall be available for review at the job site at all times.

11. <u>Special Inspector/Inspections, Independent Technical Review, Project Coordination and Management</u>

Prior to issuance of a demolition, grading, and/or construction permit

The project applicant may be required to pay for on-call special inspector(s)/inspections as needed during the times of extensive or specialized plan check review, or construction. The project applicant may also be required to cover the full costs of independent technical and other types of peer review, monitoring and inspection, including without limitation, third party plan check fees, including inspections of violations of Conditions of Approval. The project applicant shall establish a deposit with the Building Services Division, as directed by the Building Official, Director of City Planning or designee.

12. Public Improvements

The project applicant shall obtain all necessary permits/approvals, such as encroachment permits, obstruction permits, curb/gutter/sidewalk permits, and public improvement ("p-job") permits from the City for work in the public right-of-way, including but not limited to, streets, curbs, gutters, sidewalks, utilities, and fire hydrants. Prior to any work in the public right-of-way, the applicant shall submit plans for review and approval by the Bureau of Planning, the Bureau of Building, and other City departments as required. Public improvements shall be designed and installed to the satisfaction of the City.

13. Days/Hours of Construction Operation

Ongoing throughout demolition, grading, and/or construction

The project applicant shall require construction contractors to limit standard construction activities as follows:

- a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.
- b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.
- c) Construction activity shall not occur on Saturdays, with the following possible exceptions:
 - i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.
 - ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.
- d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.
- e) No construction activity shall take place on Sundays or Federal holidays.

Case File Number: PLN18070

Page 13

f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held onsite in a non-enclosed area.

14. 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.

15. Camouflage

Requirement: The antenna shall be painted, texturized, and maintained matte silver, and the equipment and any other accessory items including cables matte brown, to better camouflage the facility to the utility pole and attached power line posts.

When Required: Prior to a final inspection

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

16. 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.

17. 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.

18. Graffiti Control

Requirement:

- a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation:
- i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces.
- ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces.
- iii. Use of paint with anti-graffiti coating.
- iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED).
- v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement.
- b. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include the following:
- i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system.
- ii. Covering with new paint to match the color of the surrounding surface.

Page 14

iii. Replacing with new surfacing (with City permits if required).

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

PROJECT TEAM

APPLICANT:

5001 Executive Parkway San Ramon, Ca 94583

ARCHITECT/ENGINEER: Rodney Barnes

785 Oak Grove Road E2 Suite 251 Concord CA 94518 707.592.5924

ZONING CONTACT

Matt Yergovich Vinculums Services 575 Lennon Lane Suite 125 Walnut Creek, CA 94598 T 415.596.3474 myergo@gmail.com

LEASING CONTACT:

Matt Yergovich Vinculums Services 575 Lennon Lane Suite 125 Walnut Creek, CA 94598 T 415,596,3474 myergo@gmail.com

CONSTRUCTION MANAGER:

Vinculums Services 575 Lennon Lane Suite 125 Walnut Creek, CA 94598

GENERAL NOTES

- THIS IS AN UNMANNED TELECOMMUNICATIONS FACILITY FOR THE AT&T WIRELESS NETWORK CONSISTING OF THE INSTALLATION AND OPERATION OF AN ANTENNA AND ASSOCIATED EQUIPMENT ON AN EXISTING METAL LIGHT POLE IN THE PUBLIC RIGHT-OF-WAY, THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT DRAINAGE, NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL
- CHANGES FROM THE APPROVED PLANS DURING THE COURSE OF CONSTRUCTION SHALL CAUSE CONSTRUCTION TO BE SUSPENDED UNTIL SUCH TIME AS THE PLANS CAN BE AMENDED BY THE DESIGNER AND SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL

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:

- CALIFORNIA CODES
- 2016 CALIFORNIA BUILDING CODE
- 2016 CALIFORNIA MECHANICAL CODE
- 2016 CALIFORNIA PLUMBING CODE
- 2016 CALIFORNIA ELECTRIC CODE 2016 GREEN BUILDING CODE
- 2016 EDITION OF TITLE 24 ENERGY STANDARDS
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY / COUNTY ORDINANCES
- CITY OF OAKLAND PUBLIC WORKS DEPARTMENT
- GENERAL ORDER 95 (JUNE 2009 EDITION)

AT&T

5001 EXECUTIVE PARKWAY, SAN RAMON, CA 94583

CRAN-RSFR-SFOK7-003

PACE ID:

ROW AT 394 40TH ST, OAKLAND, CA 94609

COUNTY: ALAMEDA SITE TYPE: WOOD POLE FA:14394424 HUB:20 USID:192902



SITE IMAGE



DRIVING DIRECTIONS

FROM AT&T WIRELESS OFFICE AT 5001 EXECUTIVE PARKWAY, SAN RAMON, CA

- Head north-east on Bishop Dr towards Sunset Dr
- Turn right onto Sunset Dr
- Use the right 2 lones to turn right onto Bollinger Canyon Rd Use the right 2 lones to merge onto I-680 N via the slip road to Sacramento
- Merge onto I-680 N
- Use the right 2 lanes to take exit 46A for State Route 24 towards
- Oakland/Lafayette Continue onto CA-24 W
- Keep left at the fark to stay on CA-24 W
- Take exit 4B to merge onto Broadway
- Merge onto Broadway
- Turn right onto 40th St

1.2 A.1 A.2 A.3 A.4 A.5 A.6

	INDEX		5001 EXECUTIVE PARKWA SAN RAMON, CA 94583
1	TITLE SHEET	LATTITUDE:	37.8285100 (NAD 83)
2	GENERAL NOTES, LEGEND, ABBREVIATIONS	LONGITUDE:	-122.2596700 (NAD 83)
.1	OVERALL SITE PLAN	GROUND ELEVATION:	87' AMSL
2	POLE PLAN, EQUIPMENT ENLARGEMENTS	ADJACENT APN#:	(10) 10 1007
.3	ELEVATIONS	ADJACENI APN#:	(IFO) 12-1007-1
4	ELEVATIONS	ZONING JURISDICTION:	CITY OF OAKLAND
.5	EQUIPMENT DETAILS	CURRENT ZONING:	PUBLIC ROW
.6	EQUIPMENT DETAILS	PROPOSED USE:	UNMANNED TELECOMMU



DRAWING SIGN-OFF

	Signature	Date
SITE ACQUISITION:		_
PLANNING:		-
CONSTRUCTION:		
MANAGEMENT:		
⊜ AT&T	Signature	Date
CONSTRUCTION:		Dale
REAL ESTATE:		
RF ENGINEER:		
QUIPMENT ENGINEER:		
MW ENG/TRANSPORT:		
OWNER:		

PROJECT DESCRIPTION

THIS IS AN UNMANNED TELECOMMUNICATIONS FACILITY FOR THE ATAT WIRELESS NETWORK CONSISTING OF THE INSTALLATION AND OPERATION OF AN ANTENNA AND ASSOCIATED EQUIPMENT ON AN EXISTING WOOD POLE IN THE PUBLIC RIGHT-OF-WAY.

SCOPE OF WORK & SITE COMPLETION CHECKLIST:

- ANTENNA & ASSOCIATED EQUIPMENT BOXES: INSTALL A NEW TELECOMMUNICATION ANTENNA, NEW 7'
 BAYONET EXTENSION, [2] EQUIPMENT BOXES, NEW FIBER BOX, AND NEW DISCONNECT/BREAKER BOX ON
 AN EXISTING WOOD POLE. ALL POLE-MOUNTED EQUIPMENT TO BE INSTALLED ON A GO95 COMPLIANT
- DURABLE PAINT: ANTENNAS, MOUNTING BRACKETS, CABLING, AND RADIO RELAY UNITS TO BE PAINTED SHERWIN WILLIAMS MESA BROWN
- 3. CABLING: CABLING TO BE INSTALLED IN A TIDY MANNER WITHOUT EXCESS CABLE LOOPS
- LOGO REMOVAL: ALL EQUIPMENT LOGOS, OTHER THAN THOSE REQUIRED BY REGULATION (E.G. NODE IDENTIFICATION), SHALL BE PAINTED OVER OR REMOVED, RAISED/DEPRESSED TEXT ON RRUS OR OTHER EQUIPMENT, IF PRESENT, TO BE SANDED OFF OR SIMILARLY REMOVED AND/OR FILLED
- SIGNAGE: FCC MANDATED RF WARNING SIGNAGE SHALL FACE CLIMBING SPACE, OPTIONAL SIGNAGE SHALL FACE OUT TO STREET WHEN PLACED IN FRONT OF OR NEAR A WINDOW, SIGNAGE SHALL FACE TOWARD BUILDING IF THERE IS NO WINDOW,
- UTILITY LINES: PROPOSED UTILITY LINES BETWEEN EXISTING POINT OF CONNECTION TO BE IN CONDUIT ON

SITE INFORMATION

OWNER: PG&E APPLICANT MUNICATIONS FACILITY

DO NOT SCALE DRAWINGS

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



AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583



Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-003

PACE ID: ROW AT 394 40TH ST, OAKLAND, CA 94609 COUNTY: ALAMEDA

It is a violation of law for any person, unless they are acting under the direction of a licensed Professional Architect/Engineer, to alter this document.

Rev.	Date	Des	cription			
01	09/26/17	Zonii	Coning Dwgs 90%			
Proje	ct No.:					
Date:	09/26/	17	Job No.:			
Scale	: AS SHO	WN	CAD File:			

TITLE SHEET

Designed By: JG Checked:

GENERAL CONSTRUCTION NOTES

- PLANS ARE INTENDED TO BE 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.
- 2. THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL CONTACT USA JUNDERGROUND SERVICE ALERT) AT (800) 227-2600, FOR UTILITY LOCATIONS, 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
- 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.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CBC / UBC'S REQUIREMENTS REGARDING EARTHQUAKE RESISTANCE, FOR, BUT NOT LIMITED TO, PIRMOS, LIGHT FXTURES, CELLING GRID, INTERIOR PARTITIONS, AND MECHANICAL EQUIPMENT. ALL WORK MUST COMPLY WITH LIGHT LEARTHQUAKE CODES AND REGULATIONS.
- 6. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWINGS, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTION SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYORS MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NORTH THE ARCHITECT / SINGRESS PRICE TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DAWINGS AND THE! NORTH ORENTATION AS DEPOTED ON THE CONLINEARY THE CONSTRUCTOR SHALL ASSURE SOLE LIBBLITY FOR ANY FALURE TO NOTE! THE
- THE BUILDING DEPARTMENT ISSUING THE FERMIS SHALL BE NOTIFED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK, OR AS OTHERWISE STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.
- 8. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNITESS OTHERWISE NOTED.
- 9. ALL ENSTING UTERIES, FACILITIES, CONDITIONS, AND THER DIMENSIONS SHOWN ON THE PLAN HAVE SEEN PLOTTED FROM AVAILABLE RECORDS, THE ARCHRECT, ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OF THE ACCURACY OF THE NORMATION SHOWN ON THE PLANS, OR THE MANNER OF THEIR REMOVAL, OR ADJUSTMENT, CONTRACTORS SHALL SE REPONSIBLE FOR DETERMINING EXACT, LOCATION OF ALL EXSTING UTLITES AND FACULITIES PRIOR TO START OF CONSTRUCTION. CONTRACTORS SHALL ALSO DISTANT REMOVE ACH UTLITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTLITIES.
- 10. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTAL AND VERTICALLY, PRIOR TO THE START OF CONSTRUCTION, ANY DSCREPANCIES OR DOUBS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT / ENGINEER FOR RESOLUTION AND INSTRUCTION, AND DO SUPETHER WORK SHALL BE PERFORMED UNIT, THE DSCREPANCY SECRED AND CORRECTED BY ARCHITECT / ENGINEER, FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE.
- 11. ALL PROPOSED AND EXISTING UTUTY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
- 12. ANY DRAIN AND/OR FIELD TLE ENCOUNTERED / DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK. SZE, LOCATION AND TYPE OF ANY UNDERGROUND UTLITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS-BULT" DRAWINGS BY GENERAL CONTRACTOR, AND SSUED TO THE ARCHITECT / ENGINEER AT COMPLETION OF PROJECT.
- 13. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENT
- 14. INCLUDE MISC, ITEMS PER AT&T WIRELESS SPECIFICATIONS

GENERAL NOTES

GENERAL NOTES FOR EXISTING CELL SITES

- PRIOR TO THE SUBMISSION OF BIDS. THE BODING SUBCONTRACTOR SHALL VISIT THE CELL SIFE TO FAMILIARZE WITH THE EXISTING AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPAN
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS
 EXISTING CONSTRUCTION SHOWN ON THE DRAWNIGS MUST BE VERKED, SUBCONTRACTOR SHALL NOTEY THE CONTRACTOR OF ANY
 DISCREPANICES PRIOR TO CORPERNO MATERIAL OF PROCEEDING WITH CONSTRUCTION.
- 3. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION, ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- 4. SINCE THE CELL SITE IS ACTIVE. ALL SAFELY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTRON

 ANALYTICAL EXPERIENCE FURNISHED BY SHITTENIAN PRINTS TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO D. PERSONAL RE EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND TECABLES, GROUNDING CABLES AS SHOWN ON THE
 POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD PROPOSED TRAYS AS
 NECESSARY, SUBCONTRACTOR SHALL CONFRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACULTY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNERS DESIGNATED LOCATION.

APPLICABLE CODES, REGULATIONS AND STANDARDS:

- SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHL) FOR THE LOCATION.
- 2. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
- 3. SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
- AMERICAN CONCRETE INSTITUTE (ACI) \$18. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (ASC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EC

 TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA
- Supposing Structures

 Supposing Structures

 Institute For Bectifical Bectifical And Electropics inclinees feet BL Guide For Measuring Barth Resistant, and Electropical Regional System Lefe 1100 (1999) Regommended Practice For Powering and Grounding of Electropical Regional EEE C42.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND
- 5. TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS TELCORDIA GR-63 NETWORK EQUIPMENT-BUILDING SYSTEM INESSI; PHYSICAL PROTECTION TELCORDIA GR-327 CENTRAL OFFICE POWER WIRING TELCORDIA GR-1275 GENERAL INSTALLATION REQUIREMENTS
- ELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS
- 6. ANY AND ALL OTHER LOCAL & STATE LAWS AND REGULATIONS
- FOR ANY CONFLICTS BETWEEN SECTIONS OF USTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE SHALL GOVERN, WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

GENERAL TRENCHING NOTES

- MAINTAIN 40" MINIMUM COVER FOR ALL ELECTRICAL CONDUITS.

 MAINTAIN 30" MINIMUM COVER FOR ALL TELECOMMUNICATIONS CONDUITS.

 MAINTAIN 1" SAND SHADING BELOW CONDUITS, AND 6" COVERNO ON TOP OF CONDUITS REQUIRED.

 MINIMUM 1" SAND SHADING BELOW COMPANY FROM MANY POLE, TRANSFORMER OR OTHER LOCATIONS WILL BE STURRY BACKFILLED.

 IN STREET STURRY TO GRADE AND MILL DOWN 1-1/2" FOR ACC CAP.

 IN DRIT STURRY TO FROM GRADE AND MILL SOWN COMPACTION MAIVE SOLL FOR BALANCE

 WARNING TAPE TO BE PLACED IN TRENCH 12" ABOVE ALL CONDUITS AND RIS WARNING TAPE ABOVE RING.

GENERAL GROUNDING NOTES

GENERAL CONDUIT NOTES

- 5/8 x 8 ROD, CAD WELD BELOW GRADE

- PLACE 3 #10 GA WIRES FROM TESCO BREAKER TO PRIMD OR STRONG BOX. WOOD MOLDING, STAPLED EVERY 3' AND AT EACH END

- 1. ALL CONDUITS WILL BE MANDRELED AND EQUIPPED WITH 3/8" PULL ROPE.
 2. SCHEDULE 40 CONDUIT FOR UNDERGROUND USE.
 3. SCHEDULE 80 CONDUIT FOR RISER USE.
 4. 2" CALVANIZED STEEL CONDUIT FOR ANY CONDUIT UNDER 3", STUB UP 10" THEN CONVERT TO SCHEDULE 80.
 5. CONVERT 4" CONDUIT 10" 3" IT SASS OF POLE.
 6. CONTRACTOR TO STUB UP POLE 10" WI 3" POWER CONDUIT, POWER COMPANY TO CONVERT FROM 3" STUB SCHEDULE 80 TO 2" SCHEDULE 80 FROM TOP 0" STUB UP.
 7. INSTALL STEPS PER PGAE REQUIREMENTS.

ABOVE ANTENNA CABLE COVER ASSEMBLY ADDITIONAL ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AMPERE INTERRUPTING CAPACITY ALLIANNIAN

BUILDING
BLOCKING
BLOCKING
BEAM
BOUNDARY NAILING
BREAKER
BARE IRNED COPPER WIRL
BASE TRANSMISSION SYSTEM
BOTTOM OF FOOTING
BACK-UP CABINET
CONDUIT

TYPICAL R.O.W. POLE CONSTRUCTION NOTES

- CABLE NOT TO IMPEDE 15 CLEAR SPACE OFF POLE FACE.
 ALL CLIMB STEPS NEXT TO CONDUE SHALL HAVE EXTENDED STEPS.
 NO BOLD THREADS TO PROTRUDE MORE HANN 1-1/27
 ALL HOLESIN POLE LEFT FROM REARRANGEMENT OF CLIMB STEPS TO BE FILED.
 90° SHORT SWEEPS UNDER ANTENNA ARM. ALL CABLES MUST TRANSITION ON THE INSIDE OR BOTTOM OF THE ARM IND CABLE ON
- USE 90° CONNECTOR AT CABLE CONNECTION FOR OWN DOWN ANTENNAS.
- USE MY CONNECTION AT CABLE CONNECTION FOR OWN DAY AMERINA.

 LIBE CABLE, CLAMMSTO DISCULED CABLE TO ARMY PLACE 2 AIM WRITELESS CABLE ID, TAGS ON BOTH SIDES OF ARMS.

 USE 127 DIA. CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

 FLACE GYS ON ARM OF SOUTHERS SEY EXPOSULES AT MINIMUM 6 FROM TRANSMIT ANTENNA WHICH IS 24' AWAY FROM CENTER OF
- ID. FLI VOD ARQUIND CARLES AT CONDUC OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSTON

SOLATED COPPER GROUND BUS

MANUAL TRANSFER SWITCH NEUTRAL PROPOSED

REFERENCE REINFORCEMENT(ING) REQUIRED RIGID GALVANIZED STEEL

SOLD NEUTRAL SPECIFICATION(S SQUARE STAINLESS STEEL STANDARD

ICHEDULE IOFI DRAWN BARE COPPER IFCONDARY

NATIONAL ELECTRICAL MANUFACTURERS ASSOC. NUMBER NOT TO SCALE OVERHEAD

AST CONCRETE ONAL COMMUNICATION SERVICES

INCH(ES) INTERIOR POUND(S) LAG BOLTS LINEAR FEET (FOOT)



AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583



Project Architect:

85 Oak Grove Road F2

ancord, CA 94518 707.592.5924

VINÇULUMS

575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-003 PACE ID: ROW AT 394 40TH ST, OAKLAND, CA 94609 COUNTY: ALAMEDA

Site Name

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Rev.	Date	Description
D1	09/26/17	Zoning Dwgs 90%
Proje	ct No.:	
Date:	09/26/	17 Job No.:

GENERAL NOTES LEGEND **ABBREVIATIONS**

Designed By: JG Checked: RB

Scale: AS SHOWN CAD File:

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PROPOSED ANTENNA 5/8" X 10-0" ,Cu. GND ROD IN TEST WELL

B

HQ

(

GROUT OR PLASTER 42 EXISTING ANTENNA (E) BRICK 8 GROUND ROD (E) MASONRY CONCRETE MECHANICAL GRND. CONN EARTH \otimes 00000000000000 GRAVE GROUND ACCESS WELL PLYWOOD E ELECTRIC BOX * LIGHT POLE WOOD BLOCKING 0 SOUTH TO THE STATE OF THE STATE STEEL CENTERLINE Δ MATCH UNE REVISION WORK POINT (x) GRID REFERENCE - - GROUND CONDUCTOR $\begin{pmatrix} X \\ X - X \end{pmatrix}$ - - A- - COAXIAL CABLE - - O/U- - OVERHEAD SERVICE (X) (X-X) ELEVATION REFERENCE OVÉRHEAD ELEPHONE/OVERHEAD Ю SECTION REFERENCE OVERHEAD TELEPHONE LINE

E E POWER RUN

TELCO RUN -----T/E ------ POWER/TELCO RUN G GROUNDING CONDUCTOR - - - GROUNDING CONDUCTOR - - CONDUIT UNDERGROUND -(I_D-FUSE, SIZE AND TYPE AS INDICATED. MANUAL TRANSFER SWITCH, 2P-240V-200A, NO FUSE, NEMA 3R ENCLOSURE \Box H EOH \Box LIGHTING FIXTURE, HIGH PRESSURE SODIUM, 1770W, WAI HMOUNTING TYPE, HUBBELL LIGHTING CATALOG #NRG-307 OR 1/50W, HUBBELL LIGHTING CATALOG #NRG-121 EXIT SIGN, THERMOPLASTIC LED. SINGLE FACE, UNIVERSAL MOUNTING, W/BATTERY PACK, HUBBELL LIGHTING CATALOG COMBINATION, EXIT SIGN & EMERGENCY LIGHTING. EXIT EMERGENCY LIGHTING, 2/50W, HUBBELL LIGHTING CATALOG

LIGHTING FIXTURE, HALOGEN, QUARTZ, 1/300W, HUBBELL

LIGHTING FIXTURE, 1/175W, METAL HALIDE, HUBBELL CAT

5/8" X 10-0" .Cu. GND ROD 30" MIN. BELOW GRADE.

MECHANICAL CONNECTION HALO GROUND CONNECTION CIRCUIT BREAKER 0 UTILITY METER BASE TRANSFORMER T 0 RECEPTACLE, 2P-3W-125V-15A, DUPLEX GROUND TYPE, HUBBEL CATALOG #5362

30" MIN. BELOW GRADE

CHEMICAL GROUND ROD

CADWELD CONNECTION

TOGGLE SWITCH, 1P-125V-15A, HUBBELL CATALOG #HBL 1201CN TOGGLE SWITCH, 1P-120V-15A, WP (S)

IONIZATION SMOKE DETECTOR W/ALARM HORN & AUXILIARY CONTACT, 120 VAC, GENTEX PART NO, 7100F 0

PROPOSED POLE MOUNTED XFMER

(E) POLE MOUNTED XFMR PROPOSED PAD MOUNTED XFMER

(E) PAD MOUNTED XFMER

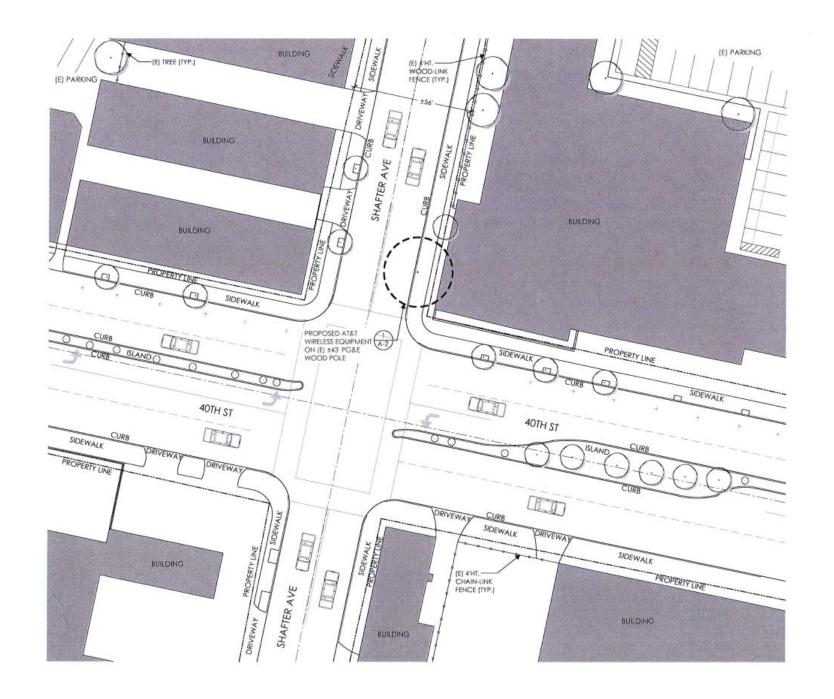
FLR. FLUOR FON. F.O.C. F.O.S. F.O.W. F.S. FLC! FIG.

CAB. CANT. CB. CLP. CKT. CLG. CLG. COL. CONC. CONC. CONST. CONT.

AWN COPPER WIRE

LEGEND

ABBREVIATIONS



NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY, PROPERTY
LINES, RIGHT-OF-WAYS, POWER & TELCO UTILITY POINT CONNECTIONS/ROUTES
AND EASEMENTS SHOWN ON THESE PLANS ARE ESTIMATED. ALL ITEMS AND
DIMENSIONS SHOULD BE VERIFIED IN THE FIELD.

UNDERGROUND UTILITIES NOTE:
THE LOCATIONS AND EXISTENCE OF ANY UNDERGROUND PIPES, STRUCTURES,
OR CONDUITS SHOWN ON THIS PLAN WERE OBTAINED BY A SEARCH OF
AVAILABLE RECORDS. THERE MAY BE EXISTING UTILITIES OTHER THAN THOSE
SHOWN ON THIS PLAN. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT SHOWN ON THIS PLAN.





AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583



oncord, CA 94518

Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-003 PACE ID: ROW AT 394 40TH ST, OAKLAND, CA COUNTY: ALAMEDA

Professional Seal:

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Rev.	Date	Description			
03	09/26/17	Zoning Dwgs 90%			
-					

Project No.:

Date: 09/26/17 Job No.: Scale: AS SHOWN CAD File:

Designed By: JG Checked: RB

OVERALL SITE PLAN

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20' 10' 0 10' 20'

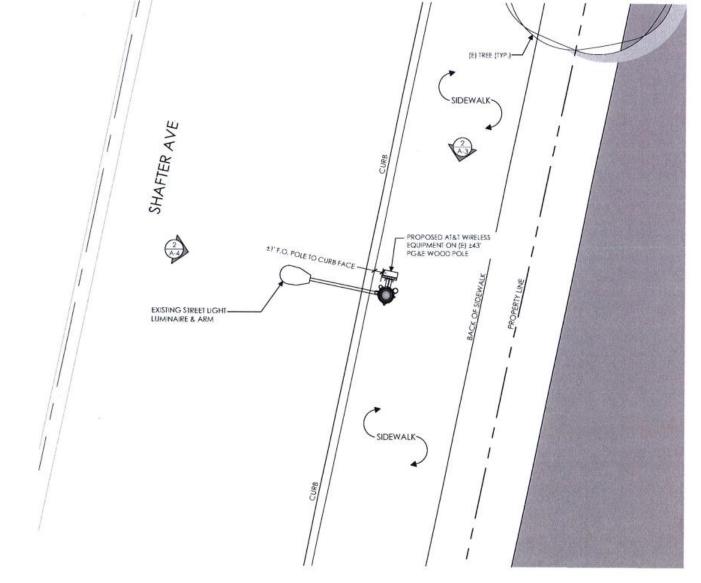
- (N) AT&T EQUIPMENT TO BE MOUNTED IN THE 9:00 QUADRANT
- CLIMBING SPACE BETWEEN 12:00 & 3:00
- POLE STEPS REQUIRED FROM 8.5' TO COMMUNICATIONS ZONE PER GO95
- STEPS SHOULD BE USABLE WHEN INSTALLED WITHIN CLIMBING SPACE

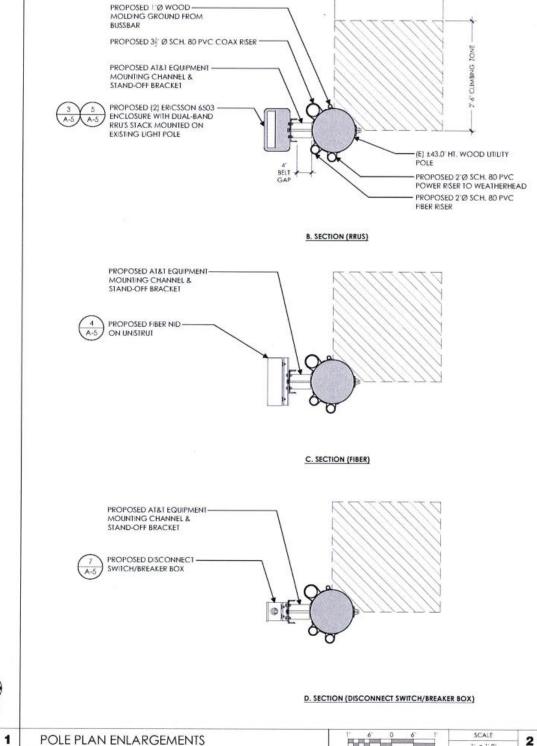
EQUIPMENT SYSTEM:

ALL NEW COMPONENTS NOT SHOP PAINTED SHOULD BE FIELD PAINTED SHERWIN WILLIAMS

NEW CONDUIT FOR POWER/TELCO: (1) 2" CONDUIT FOR POWER

- (1) 2" CONDUIT FOR FIBER (1) 3 CONDUIT FOR COAX
- (1) 1" WOOD MOLDING FOR GROUND





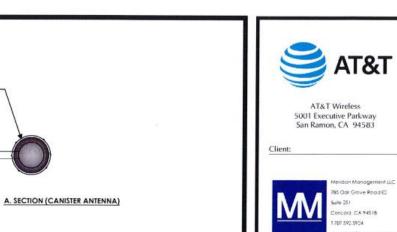
PROPOSED (1) 10'Ø x 24,7'H. — 'CANTENNA' CANISTER

ANTENNA MOUNTED ON TOP OF EXISTING ±43.0 PG&E

WOOD POLE

EXISTING STREET LIGHT LUMINAIRE & ARM, SEE SITE

PLAN FOR LOCATION



Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

90% Zoning Drawings

(E) LIGHT POLE Drawing Phase:

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01	09/26/17	Zoning Dwgs 90%.
-		-
-		-
Proje	ct No.:	
	6800000	960 074% 199

Date: 09/26/17 Job No.:

Scale: AS SHOWN CAD File: Designed By: JG Checked:

POLE PLAN **EQUIPMENT**

ENLARGEMENTS

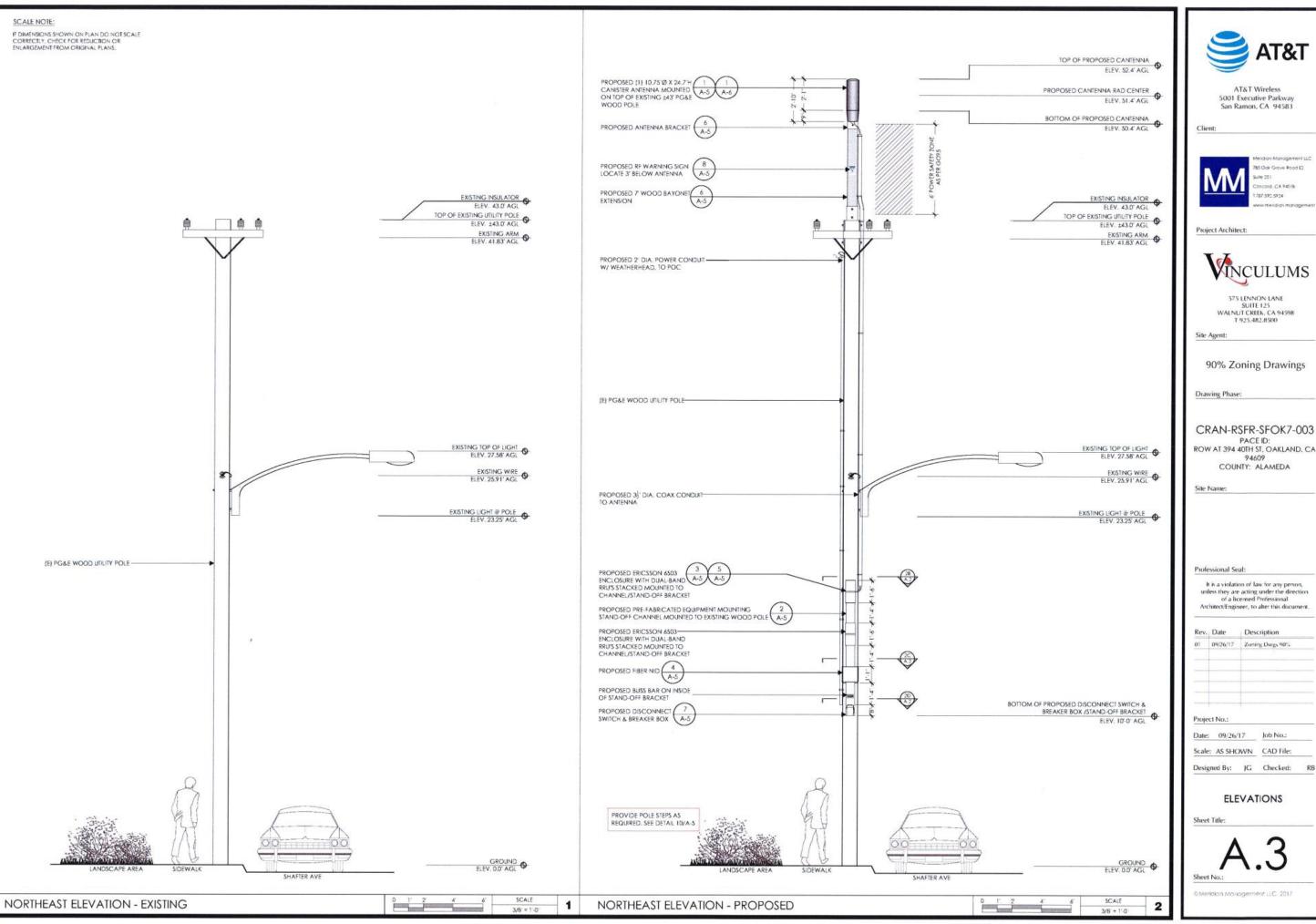
Sheet No.:

16 8 0 8

POLE PLAN ENLARGEMENTS

6 0 6

2-6" CLIMBING ZONE -





AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583



Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-003 PACE ID: ROW AT 394 40TH ST, OAKLAND, CA

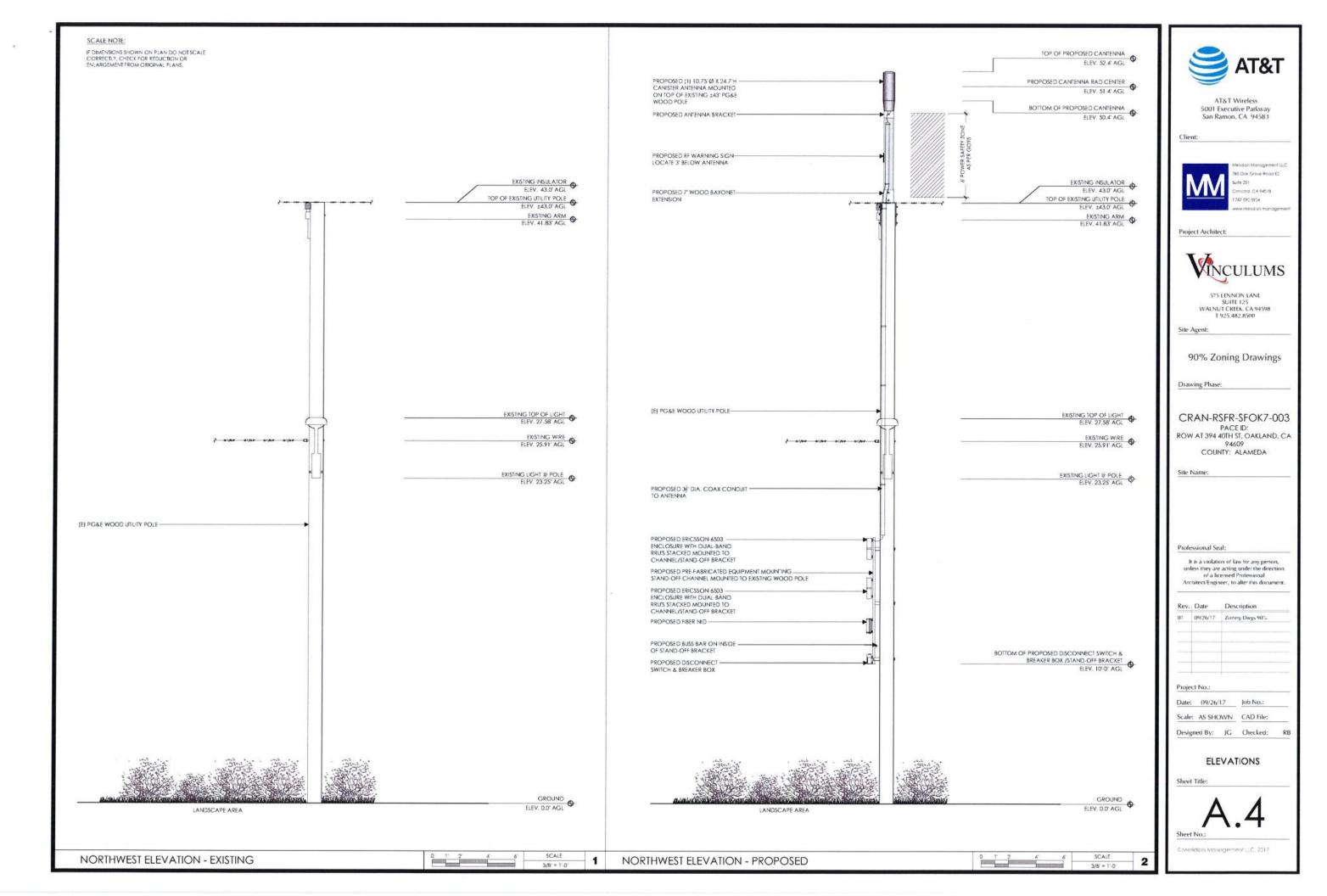
94609 COUNTY: ALAMEDA

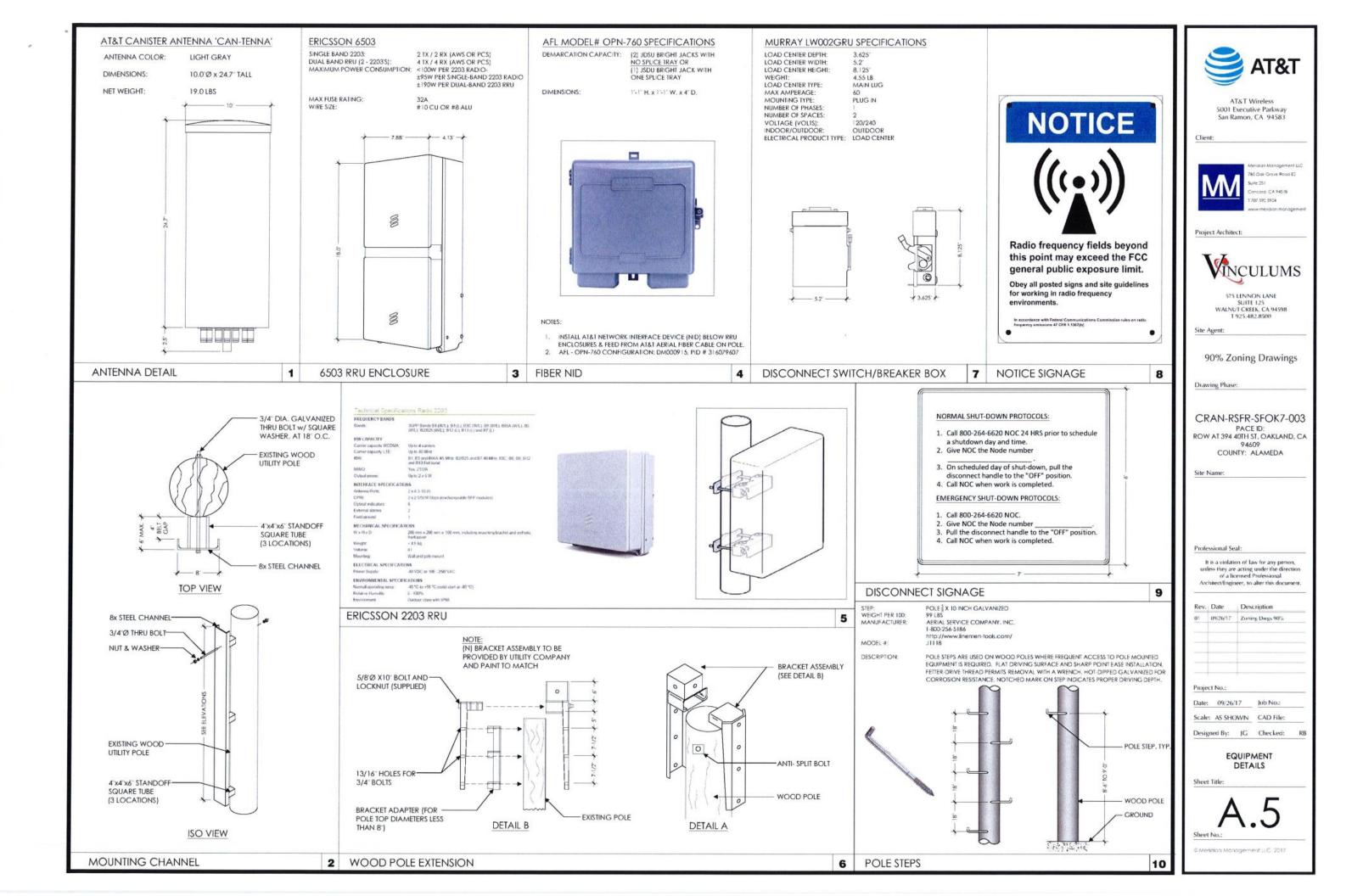
Professional Seal:

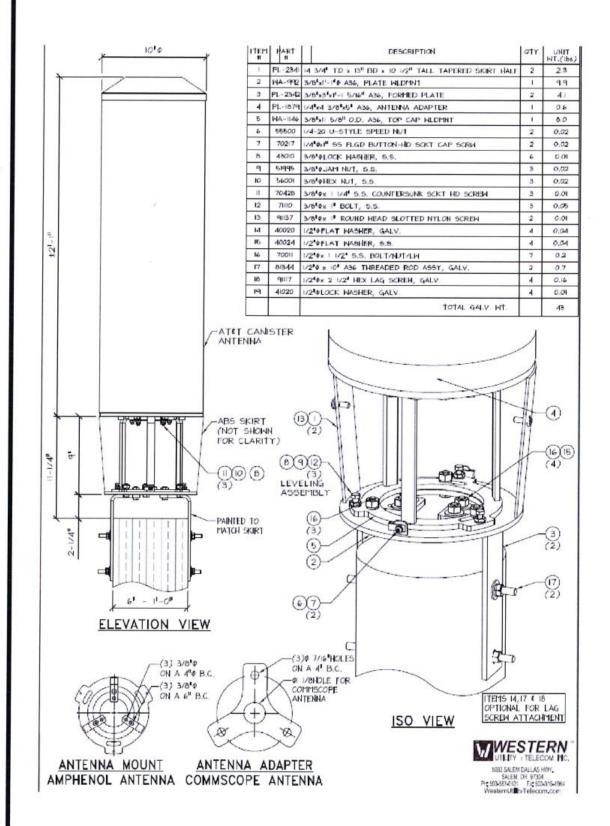
It is a violation of law for any person, unless they are acting under the direction of a licensed Professional Architect/Engineer, to alter this document.

Rev.	Date	Des	cription			
01	oject No.:	Zani	ining Dwgs 90%			
-		-				
-		-				
Proje	ct No.:					
Date:	09/26/	17	Job No.:			

ELEVATIONS









5001 Executive Parkway San Ramon, CA 94583



Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-003 PACE ID:

ROW AT 394 40TH ST, OAKLAND, CA 94609 COUNTY: ALAMEDA

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Rev. Date Description 09/26/17 Zoning Dwgs 90%

Project No.:

Date: 09/26/17 Job No.:

Scale: AS SHOWN CAD File:

Designed By: JG Checked: RB

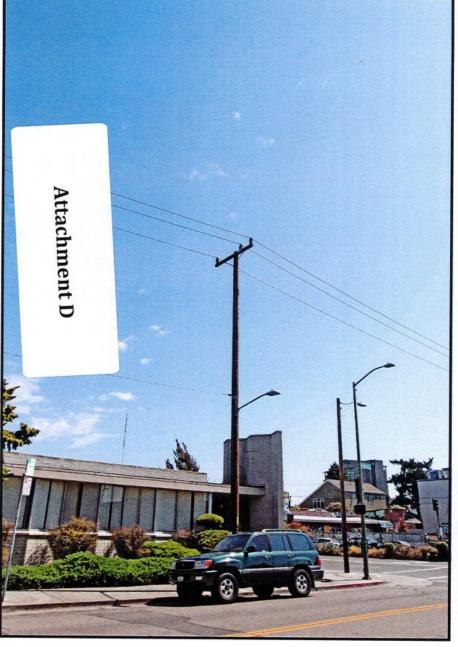
EQUIPMENT DETAILS

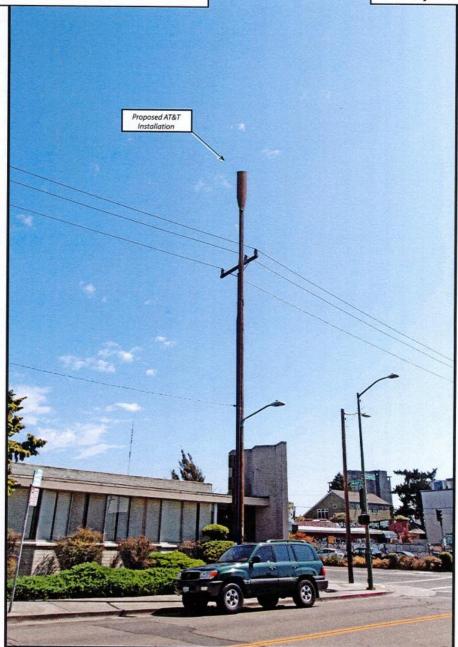
POLE TOP MOUNT W/ SKIRT ASSEMBLY DETAIL



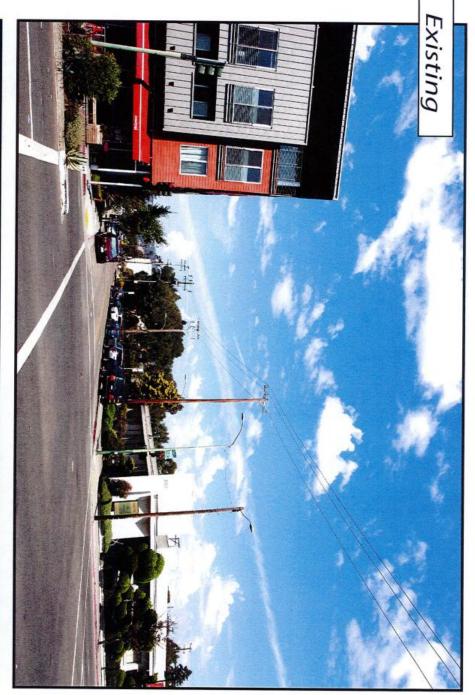
CRAN-RSFR-SFOK7-003 394 40th Street, Oakland, CA **Photosims Produced on 9-29-2017**

Proposed















view from Shafter Avenue looking north at site

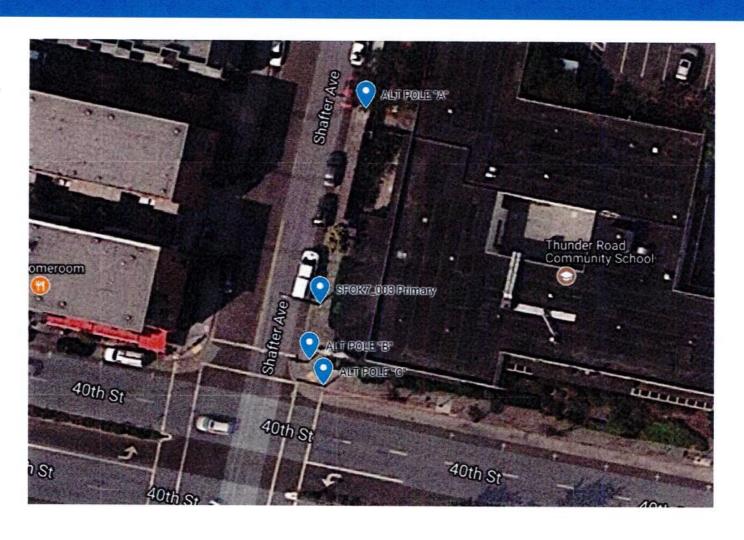
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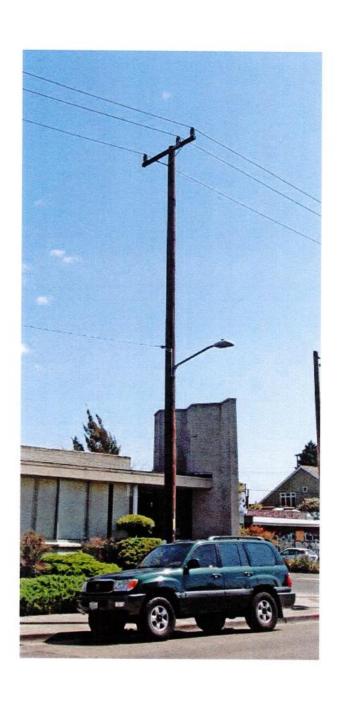
Wireless

394 40th Street, Oakland, CA

Photosims Produced on 9-29-2017

ALTERNATIVE SITE ANALYSIS SFOK7_003





AT&T PROPOSED LOCATION

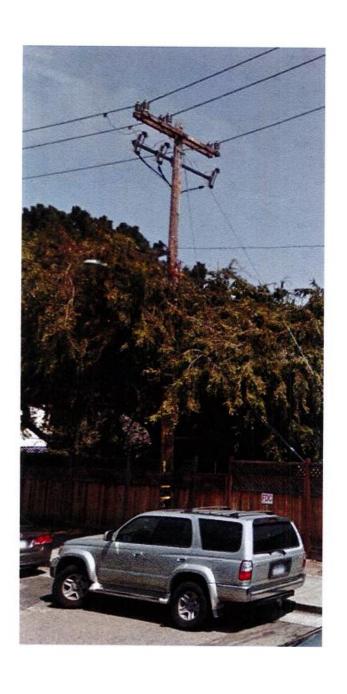
SFOK7_003

390 40[™] St. Oakland, CA 94609

APN: 12-1007-1

37.828605, -122.259663

The project is located in an area with both existing residential & commercial structures. AT&T considered alternate utility poles immediately adjacent but none were desirable from a service coverage need, CPUC standards, PG&E standards, or an aesthetics perspective. The proposed project is in an underserved area.



ALTERNATIVE POLE "A"

PG&E Wood Utility Pole 390 40TH St. Oakland, CA 94609 37.828833, -122.259598

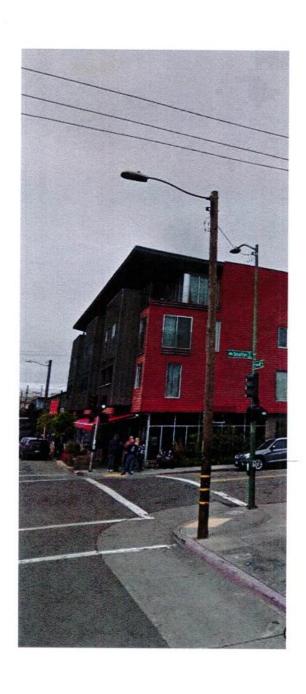
Findings: PG&E wood utility poles with primary risers are precluded from attachment.



ALTERNATIVE POLE "B"

City of Oakland metal streetlight Shafter Ave. & 40th St., Oakland, CA 94609 37.828540, -122.259678

Findings: Streetlight height does not meet AT&T's network requirements



ALTERNATIVE POLE "C"

PG&E Wood Utility Pole 390 40TH St. Oakland, CA 94609 37.828510, -122.259658

Findings: Corner utility poles are not desirable due to traffic concerns. This wood utility pole's height does not meet AT&T's network requirements

ALTERNATIVE DESIGN ANALYSIS

SFOK7_003

APN:

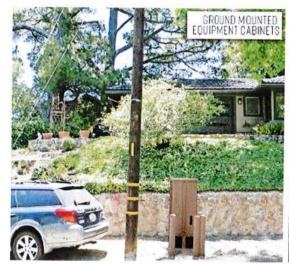
12-1007-1

LAT/LONG:

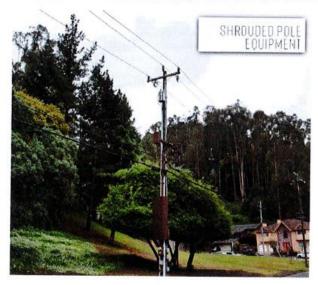
37.828605, -122.259663

The project is located in an area with existing commercial structures. AT&T considered alternative monopole designs (see below) in this area but none of these designs are as desirable from a planning perspective or from an aesthetics perspective to minimize visual impacts. The proposed project is in an underserved area.

Alternative light pole designs considered







AT&T Mobility • Proposed Small Cell (No. CRAN-RSFR-SFOK7-003) 394 40th Street • 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 its small cell (No. CRAN-RSFR-SFOK7-003) proposed to be sited in Oakland, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

AT&T proposes to install an omnidirectional cylindrical antenna on a utility pole sited in the public right-of-way at 394 40th Street 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)	5,000-80,000 MHz	5.00 mW/cm ²	1.00 mW/cm ²
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 Radi	io) 855	2.85	0.57
700 MHz	700	2.35	0.47
[most restrictive frequency rang	ge] 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.

General Facility Requirements

Small cells typically consist of two distinct parts: the electronic transceivers (also called "radios") 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 typically mounted on the support pole or placed in a cabinet at ground level, and they are connected to the antennas by coaxial cables. Because of the short wavelength of the frequencies assigned by the



AT&T Mobility • Proposed Small Cell (No. CRAN-RSFR-SFOK7-003) 394 40th Street • Oakland, California

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 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 AT&T, including drawings by Meridian Management LLC, dated September 26, 2017, it is proposed to install one KMW Model FLT-OM10H2, 2-foot tall, omnidirectional cylindrical antenna, on top of an existing utility pole sited in the public right-of-way on the east side of Shafter Avenue, just north of 40th Street. The antenna would employ 2° downtilt and would be mounted at an effective height of about 51½ feet above ground. The maximum effective radiated power in any direction would be 100 watts for PCS service. There are reported no other wireless telecommunications base stations at this site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.00066 mW/cm², which is 0.066% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building is 0.10% 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.

No Recommended Mitigation Measures

Due to its mounting location and height, the AT&T antenna would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure



AT&T Mobility • Proposed Small Cell (No. CRAN-RSFR-SFOK7-003) 394 40th Street • Oakland, California

guidelines. The occupational limit is calculated to extend 4 inches from the antenna and, due to this short distance, the proposed operation is considered intrinsically compliant with that limit.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by AT&T Mobility, at 394 40th Street 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 small cells.

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, 2019. 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.

November 3, 2017

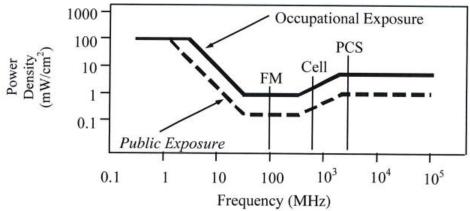


FCC Radio Frequency Protection Guide

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	Electro	magnetic F	ields (f is fi	equency of	emission in	MHz)
Applicable Range (MHz)	Elec Field S	ctric Strength /m)	Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm ²)	
0.3 - 1.34	614	614	1.63	1.63	100	100
1.34 - 3.0	614	823.8/f	1.63	2.19/f	100	180/f²
3.0 - 30	1842/ f	823.8/f	4.89/ f	2.19/f	900/ f ²	$180/f^2$
30 - 300	61.4	27.5	0.163	0.0729	1.0	0.2
300 - 1,500	3.54√f	1.59√f	$\sqrt{f}/106$	$\sqrt{f/238}$	f/300	f/1500
1,500 - 100,000	137	61.4	0.364	0.163	5.0	1.0



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





Utility Contact System Search

The Utility Contact System (UCS) is the Communications Division's database for the primary regulatory contact for each telephone corporation operating in California. The Communications Division sends important for primary regulatory notices to the regulatory contact for each telephone corporation via e-mail, so it is important for primary regulatory contacts to update their UCS record if their e-mail address changes.

Telephone corporations may update UCS contact information using the form on the following page: Carrier Reporting Requirements

A description of the different utility types (granted authorities) are listed on the following page: <u>Utility Type Descriptions</u>

Search Utility Name		S	earch Utility Numbe	r 3060			Search Clea	ar				
Utility Name A	Alias (DBA Name)	Utility Number	Street Address	City	State	Zip	Phone Number	Email	Utility Type	CPCN App		
New Cingular Wireless Pcs, LLC	CINGULAR WIRELESS	3060	430 BUSH STREET	SAN FRANCISCO	CA	94108	(415) 778-1299	att-regulatory-ca@att.com	CEC CEC	12-21-1995		
New Cingular Wireless Pcs, LLC	CINGULAR WIRELESS	3060	7405 GREENHAVEN DRIVE	SACRAMENTO	CA	95831	(800) 498-1912	west.region.oopsac@awsmail.att.com	CEC	12-21-1995		
New Cingular Wireless Pcs, LLC	CINGULAR WIRELESS	3060	11760 US HIGHWAY ONE, WEST TOWER	NORTH PALM BEACH	FL	33048	770-240-8849		CEC	12-21-1995		

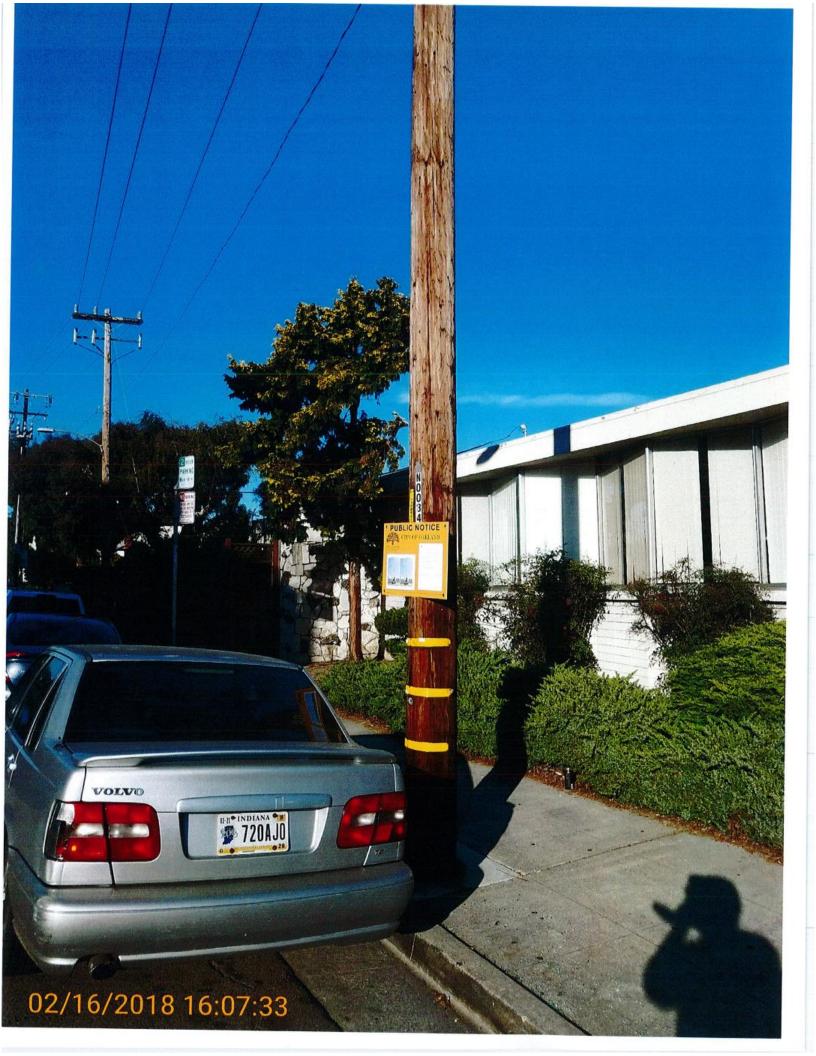
Save Search Results as CSV Spreadsheet

Comments & Feedback

02/16/2018 16:07:14



ATTACHMENT H





AT&T OPEN HOUSE



AT&T is improving wireless service in Oakland!

We will soon be proposing state-of the-art small cell wireless facilities including antennas, attached to existing utility poles and light poles.

Want to learn more?

Please join us for an open house showcasing AT&T's network, designs, permitting and radio frequency engineering.

Tuesday, January 30th, 2018
Open House–Stop by anytime between 6pm–8pm
Light refreshments served
Temescal Oakland Public Library
5205 Telegraph Ave., Oakland, CA 94609

If you have any questions, please feel free to contact:
oaklandoutreach@vinculums.com
(925) 482-8550



AT&TOPEN HOUSE



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We will soon be proposing state-of the-art small cell wireless facilities including antennas, attached to existing utility poles and light poles.

Want to learn more?

Please join us for an open house showcasing AT&T's network, designs, permitting and radio frequency engineering.

Monday, January 8th, 2018
Open House–Stop by anytime between 6 –8PM
Light refreshments served
Preservation Park - Nile Hall
1233 Preservation Park Way, Oakland, CA 94612

If you have any questions, please feel free to contact:
oaklandoutreach@vinculums.com
(925) 482-8550

AT&T Oakland Small Cell Master Plan Map

