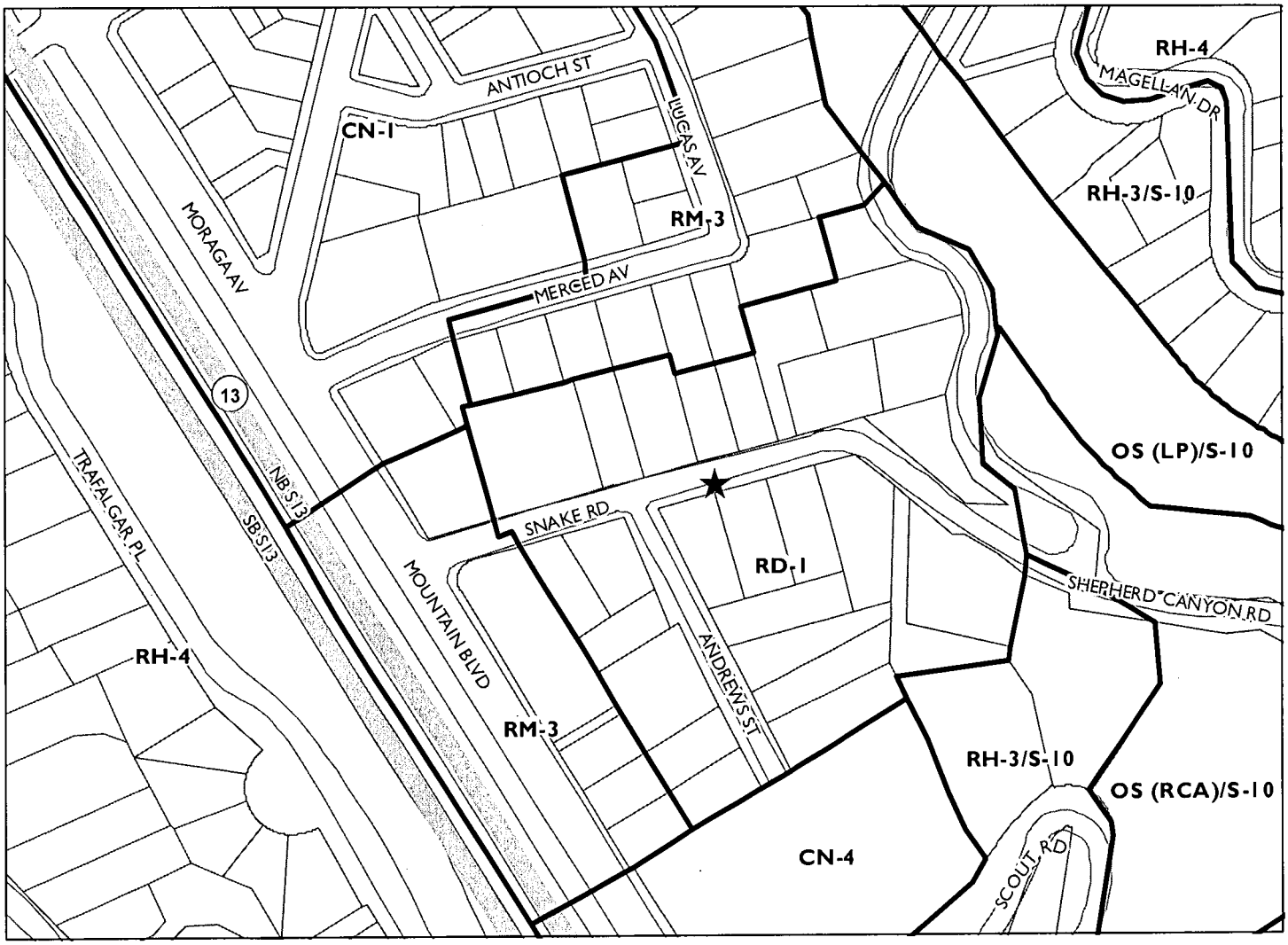
Case File Number: PLN15-183 **September 2, 2015**

Location:	**The Public Right of Way near to 5550 Snake Road. (See map on reverse)**
Assessors Parcel Numbers:	**Nearest adjacent lot (048D-7244-06-00)**
Proposal:	The applicant ExteNet Systems Inc. proposes to swap out the existing 44'-7" tall PG&E utility pole for a newer utility pole for AT&T wireless to add two panel antennas (2' long by 10" wide) mounted at a height of 54'-11"; an associated equipment box, one battery backup and meter boxes attached to the pole at 8' height above ground located in the public right-of-way.
Applicant:	ExteNet System LLC for AT&T Wireless
Contact Person/ Phone Number:	Mattew Yergovich (415)596-3474
Owner:	Pacific Gas & Electric (PG&E).
Case File Number:	**PLN15-183**
Planning Permits Required:	Major Design Review to install a wireless Telecommunication Macro Facility on the PG&E pole in the residential zone.
General Plan:	Detached Unit Residential.
Zoning:	RD-1 Detached Unit Residential Zone.
Environmental Determination:	Exempt, Section 15301and 15303 of the State CEQA Guidelines; minor additions and alterations to an existing facility 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:	3
City Council District:	4
Finality of Decision:	Appealable to City Council within 10 Days
For Further Information:	Contact case planner Jason Madani at **(510) 238-4790** or jmadani@oaklandnet.com

SUMMARY

The applicant ExteNet System Inc. for (AT&T Mobility) proposes to swap out the existing 44'-7" tall PG&E utility pole for a newer and taller utility pole located 1'-6" away from the original location of the PG&E pole to provide more distance from the adjacent driveway. The project will include two panel antennas (2' long by 10" wide) mounted at a height of 54'-11"; an associated equipment box, one battery backup and meter boxes attached to the pole at 8' height above ground located in the public right-of-way near to 5550 and 5600 Snake Road. Design Review is required for the installation of a new Macro Telecommunications Facility on a PG&E pole in the residential zone. Staff believes given the topography, mature vegetation, and existing utilities on the pole, the proposal will be camouflaged and blend in with the existing wooded area and would not significantly increase visual impacts to adjacent neighboring properties, and the project meets all the required findings listed below for approval.

CITY OF OAKLAND PLANNING COMMISSION



Case File: PLN15183
Applicant: ExteNet System LLC for AT&T Wireless
Address: The public Right-of-Way adjacent to 5550 Snake Road
Zone: RD-1

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 sitting 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 sitting 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 sitting 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".

PROJECT DESCRIPTION

The applicant ExteNet System Inc. for (AT&T Mobility) proposes to swap out the existing 44'-7" tall PG&E utility pole for a newer and taller utility pole located 1'-6" to the West away from the original location of the PG&E pole to provide more clearance from the adjacent driveway. The project will include two panel antennas (2' long by 10" wide) mounted at a height of 54'-11"; an associated equipment box, one battery backup and meter boxes attached to the pole at 8' height above ground located in the public right-of-way near to 5550 and 5600 Snake Road. (See Attachment A).

PROPERTY DESCRIPTION

The subject site is 44'-7" tall wooden PG&E utility pole located in the City of Oakland public right-of-way on the south side of Snake Road between Andrews Street and Shepherd Canyon Road at approximately 30' away from the residence at 5550 and 5600 Snake Road. The proposed site is bounded with heavily wooded with trees partially obscuring views of the pole in a residential area.

GENERAL PLAN ANALYSIS

The subject property is located within the Detached Unit Residential General Plan designation. The Detached Unit Residential Land Use Classification is intended to create, maintain and enhance residential areas that are characterized by detached, single unit structures. The proposed telecommunication facilities will be mounted on a PG&E utility pole within the City of Oakland public right-of-way, and the equipment cabinet will be within a single box will be mounted to the utility pole and painted to match the existing utility pole. The proposed unmanned wireless telecommunication facility is not expected to have a significant visual impact or detract from the residential characteristics of the neighborhood.

ZONING ANALYSIS

The project site is located in the RD-1 Detached Unit Residential Zone. The intent of the RD-1 Zone is to create, maintain, and enhance areas with detached, single unit structures. A limited number of commercial uses will be permitted or conditionally permitted in existing non-residential facilities. The proposed telecommunication facility is located approximately 30' away from the nearest residential building. The project requires Regular Design Review, with special findings, to allow the installation of new telecommunication facilities on a PG&E 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. Staff believes given the topography, mature vegetation, and existing utilities on the pole, the proposal will be camouflaged and blend in with the existing mature trees. The equipment cabinets will be enclosed within a single equipment box located on the ground and painted to match the utility pole. Staff finds that the proposed application meets the applicable RD-1 Detached Unit Residential of zoning regulations and City of Oakland Telecommunications Regulations as discussed under "Findings" of this report.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines lists 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, 15303 for installation of telecommunication facility on the existing public utility pole, and small structures. In addition, the project is also exempt per Section15183, for projects consistent with a community plan, general plan or zoning.

KEY ISSUES AND IMPACTS

1. Regular Design Review

Section 17.15.20 and 17.128.070 of the City of Oakland Planning Code requires Design Review to install or to expand a Macro Telecommunication facility to the existing PG&E pole in the residential zone. The required findings for Regular Design Review findings are listed and included in staff's evaluation as part of this report.

2. Project Site

Section 17.128.110 of Oakland's 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-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 locating on an A, B or C ranked preference do not require a site alternatives analysis. Facilities proposing to locate on a D through G ranked preference, inclusive, must submit a site alternatives analysis as part of the required application materials.

Since the proposed project involves installation of new antennas on a PG&E utility pole within an RD-1 zone, the proposed project meets (B), hence a site alternatives analysis is not required, although the applicant did provide one.

Alternative Site Analysis:

ExteNet considered alternative sites on other utility poles in this area but none of these sites are as desirable from a coverage perspective or from an aesthetics perspective to minimize visual impact. The proposed location is approximately equidistant from other DAS nodes proposed in the surrounding area so that service coverage can be evenly distributed.

Staff has reviewed the applicant's written evidence of an alternative sites analysis (see attachment A) and determined that the site selected conforms to the telecommunication regulation requirements. In addition, staff agrees that no other sites are more suitable. The project has met design criteria (B and G) since, the proposed two (2) new antennas are mounted

on the PG&E utility pole 54'-11" above ground and associated equipment cabinet box will be attached to the utility pole at 8' height above ground.

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.

The project meets design criteria (C) since the two (2) new antennas will be mounted at 54'-11" high on the PG&E utility pole, and associated equipment boxes are attached to the utility pole at 8' height above ground within the RD-1 zone. Facilities designed to meet C through F ranked preference, inclusive, must submit a site design alternatives analysis as part of the required application materials. A site design alternatives analysis shall, at a minimum, consist of:

Written evidence must indicate 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).

Alternative Design Analysis:

ExteNet evaluated whether the equipment could be under grounded but unfortunately this is not possible because there is insufficient right-of-way space for the necessary equipment access and the equipment would be compromised from saturation by rainwater. The proposed antenna design is approximately equidistant from other DAS nodes proposed in the surrounding area so that service coverage can be evenly distributed. The proposed design is a good option because it sits at a spot that a signal can be adequately propagated without obstruction, which could not have been the case if the antenna was designed on a building.

Planning staff has reviewed the applicant's written evidence of alternative design analysis (see attachment A) and determined that the site selected conforms to the telecommunication regulation requirements.

4. 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. In the document (attachment B) prepared by HAMMETT & EDISON, INC Consulting Engineers, the proposed project was evaluated for compliance with appropriate guidelines limiting human exposure to radio frequency electromagnetic fields. According to the report on the proposal, 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.

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.

The information submitted with the initial application was an RF emissions report, prepared by HAMMETT & EDISON, INC Consulting Engineers, (Attachment B). 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 that prior to the final building permit sign off; the applicant submits 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. The proposal will provide an essential telecommunication services to the community and the City of Oakland at large. It will also be available to emergency services such as police, Fire and health response teams. Staff has provided the findings for approval to support this application.

RECOMMENDATIONS:

1. Affirm staff's environmental determination
2. Approve Major Design Review application PLN15-183 subject to the attached findings and conditions of approval.

Prepared by:

Jason Madani
Planner II

Reviewed by:

Scott Miller
Zoning Manager

Reviewed by:

Darin Ranelletti, Deputy Director
Bureau of Planning and Building

Approved for forwarding to the
City Planning Commission

Rachel Flynn, Director
Bureau of Planning and Building

ATTACHMENTS:

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

FINDINGS FOR APPROVAL

This proposal meets all the required findings under Sections; 17.136.050. (B), (Non-Residential Design Review criteria); Section 17.128.070(B), of the Telecommunication Facilities (Macro) Design Review criteria; 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 applicant ExteNet System Inc. for (AT&T Mobility) proposes to swap out the existing 44'-7" tall PG&E utility pole for a newer utility pole to add two panel antennas (2' long by 10" wide) mounted at a height of 54'-11"; an associated equipment box, one battery backup and meter boxes attached to the pole at 8' height above ground located in the public right-of-way. Visual impacts will be minimized since the area is wooded with trees partially obscuring views of the pole.

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 associated equipment cabinet and one battery backup will be within a 96 inches tall by 24 inches wide box attached to the pole and painted to match wooden utility pole. Therefore, the proposed unmanned wireless telecommunication facility will blend in with an existing PG&E utility pole, and will not adversely affect and detract from residential characteristics.

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 proposal conforms in all significant aspects with the Oakland General Plan and with any other applicable plan or zoning maps adopted by the City of Oakland. The proposed unmanned wireless telecommunication facility will not adversely affect and detract from the characteristics of the neighborhood. The proposal will be located on an existing PG&E utility pole and will not likely affect the general quality and character of the neighborhood.

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 brown to match the existing wooden utility pole 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. The proposed antennas and equipment are consistent with utility pole installations.

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

The proposal antennas will be placed above, and vertically in line with, the existing utility pole.

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 cabinets will be screened and is painted brown to match PG&E wooden pole 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.

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 at a height of 54'-11"on the PG&E utility pole and will not be accessible to the public due to its location. The equipment cabinets will be inside a singular equipment box attached to the utility pole 8' above the ground.

CONDITIONS OF APPROVAL
PLN15-183

STANDARD CONDITIONS:

1. Approved Use
Ongoing

a) The project shall be constructed and operated in accordance with the authorized use as described in the application materials for case number **PLN15-183**, and the plans dated **May 22nd, 2015** and submitted on **June 3rd, 2015** and as amended by the following conditions. Any additional uses or facilities other than those approved with this permit, as described in the project description and the approved plans, will require a separate application and approval. Any deviation from the approved drawings, Conditions of Approval or use shall required prior written approval from the Director of City Planning or designee.

b) This action by the City Planning Commission ("this Approval") includes the approvals set forth below. **The applicant ExteNet Systems Inc. proposes to swap out the existing 44'-7" tall PG&E utility pole for a newer utility pole for AT&T wireless to add two panel antennas (2' long by 10" wide) mounted at a height of 54'-11"; an associated equipment box, one battery backup and meter boxes attached to the pole at 8' height above ground located in the public right-of-way.**

2. Effective Date, Expiration, Extensions and Extinguishment
Ongoing

Unless a different termination date is prescribed, this Approval shall expire **two calendar years** from the approval date, 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 permit, 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 for this project may invalidate this Approval if the said extension period has also expired.

3. Scope of This Approval; Major and Minor Changes
Ongoing

The project is approved pursuant to the **Oakland Planning Code** only. Minor changes to approved plans may be approved administratively by the Director of City Planning or designee. Major changes to the approved plans shall be reviewed by the Director of City Planning or designee to determine whether such changes require submittal and approval of a revision to the approved project by the approving body or a new, completely independent permit.

4. Conformance with other Requirements
Prior to issuance of a demolition, grading, P-job, or other construction related permit

a) The project applicant shall comply with all other applicable federal, state, regional and/or local codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Building Services Division, the City's Fire Marshal, and the City's Public Works Agency.

b) The applicant shall submit approved building plans for project-specific needs related to fire protection to the Fire Services Division for review and approval, including, but not limited to automatic extinguishing systems, water supply improvements and hydrants, fire department access, and vegetation management for preventing fires and soil erosion.

5. Conformance to Approved Plans; Modification of Conditions or Revocation

Ongoing

a) Site shall be kept in a blight/nuisance-free condition. Any existing blight or nuisance shall be abated within 60-90 days of approval, unless an earlier date is specified elsewhere.

b) The City of Oakland reserves the right at any time during construction to require certification by a licensed professional that the as-built project conforms to all applicable zoning requirements, including but not limited to approved maximum heights and minimum setbacks. Failure to construct the project in accordance with approved plans may result in remedial reconstruction, permit revocation, permit modification, stop work, permit suspension or other corrective action.

c) Violation of any term, conditions or project description relating to the Approvals 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 Approvals 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.

6. Signed Copy of the Conditions

With submittal of a demolition, grading, and building permit

A copy of the approval letter and conditions shall be signed by the property owner, notarized, and submitted with each set of permit plans to the appropriate City agency for this project.

7. Indemnification

a) ***Ongoing*** The project applicant shall defend (with counsel reasonably acceptable to the City), indemnify, and hold harmless the City of Oakland, the Oakland City Council, the City of Oakland Redevelopment Agency, the Oakland City Planning Commission and their respective agents, officers, and employees (hereafter collectively called the City) from any claim, action, or proceeding (including legal costs and attorney's fees) against the City to attack, set aside, void or annul this Approval, or any related approval by the City. The City shall promptly notify the project applicant of any claim, action or proceeding and the City shall cooperate fully in such defense. The City may elect, in its sole discretion, to participate in the defense of said claim, action, or proceeding. The project applicant shall reimburse the City for its reasonable legal costs and attorney's fees.

b) Within ten (10) calendar days of the filing of a claim, action or proceeding to attack, set aside, void, or annul this Approval, or any related approval by the City, the project applicant shall execute a Letter Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations and this condition of approval.

This condition/obligation shall survive termination, extinguishment, or invalidation of this, or any related approval. Failure to timely execute the Letter Agreement does not relieve the project applicant of any of the obligations contained in 7(a) above, or other conditions of approval.

8. Compliance with Conditions of Approval

Ongoing

The project applicant shall be responsible for compliance with the recommendations in any submitted and approved technical report and all the Conditions of Approval set forth below at its sole cost and expense, and subject to review and approval of the City of Oakland.

9. Severability

Ongoing

Approval of the project would not have been granted but for the applicability and validity of each and every one of the specified conditions, and if any 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

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. Special Inspector/Inspections, Independent Technical Review, Project Coordination and Management

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. 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.

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

PROJECT SPECIFIC CONDTIONS:

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.

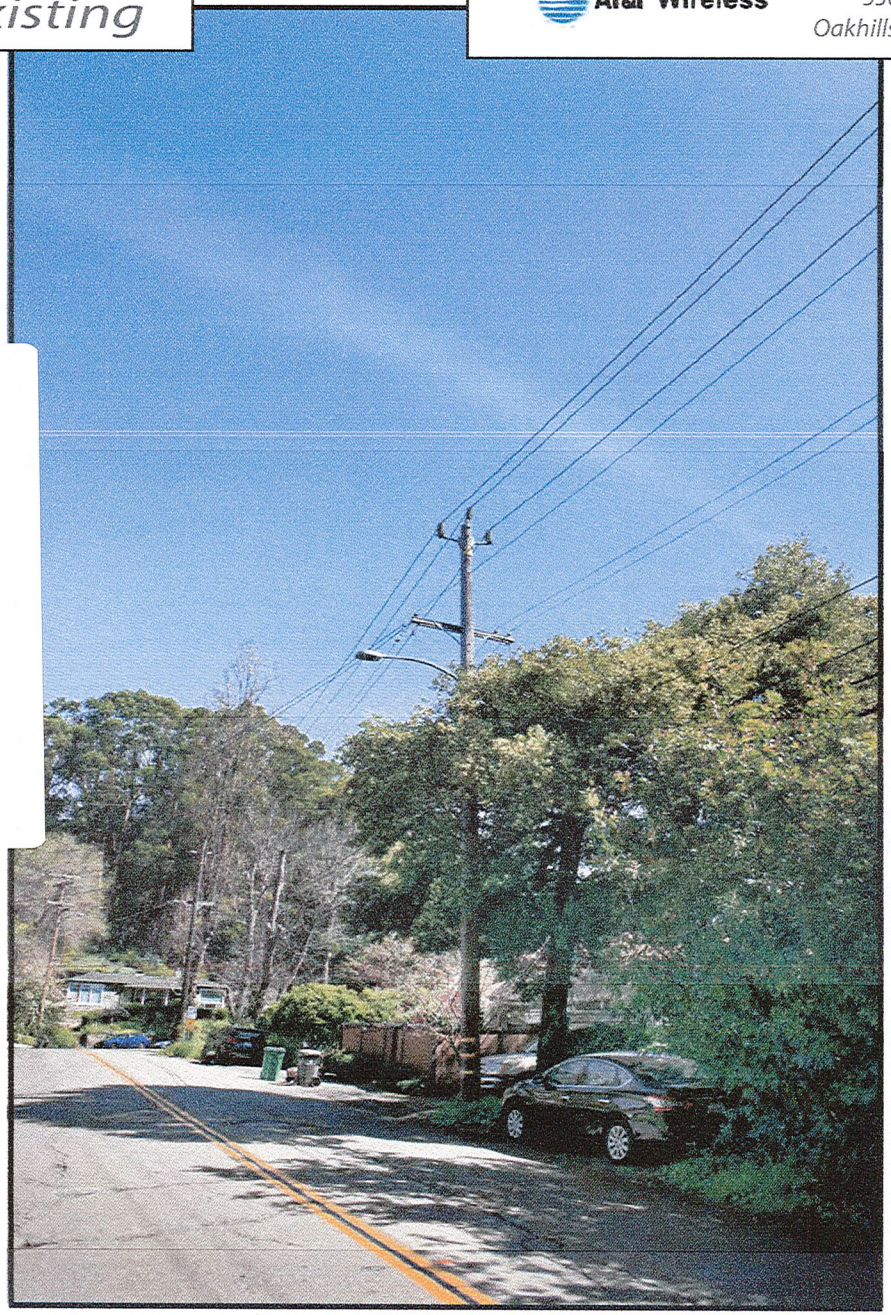
ATTACHMENT A

view from Snake Road looking east at site

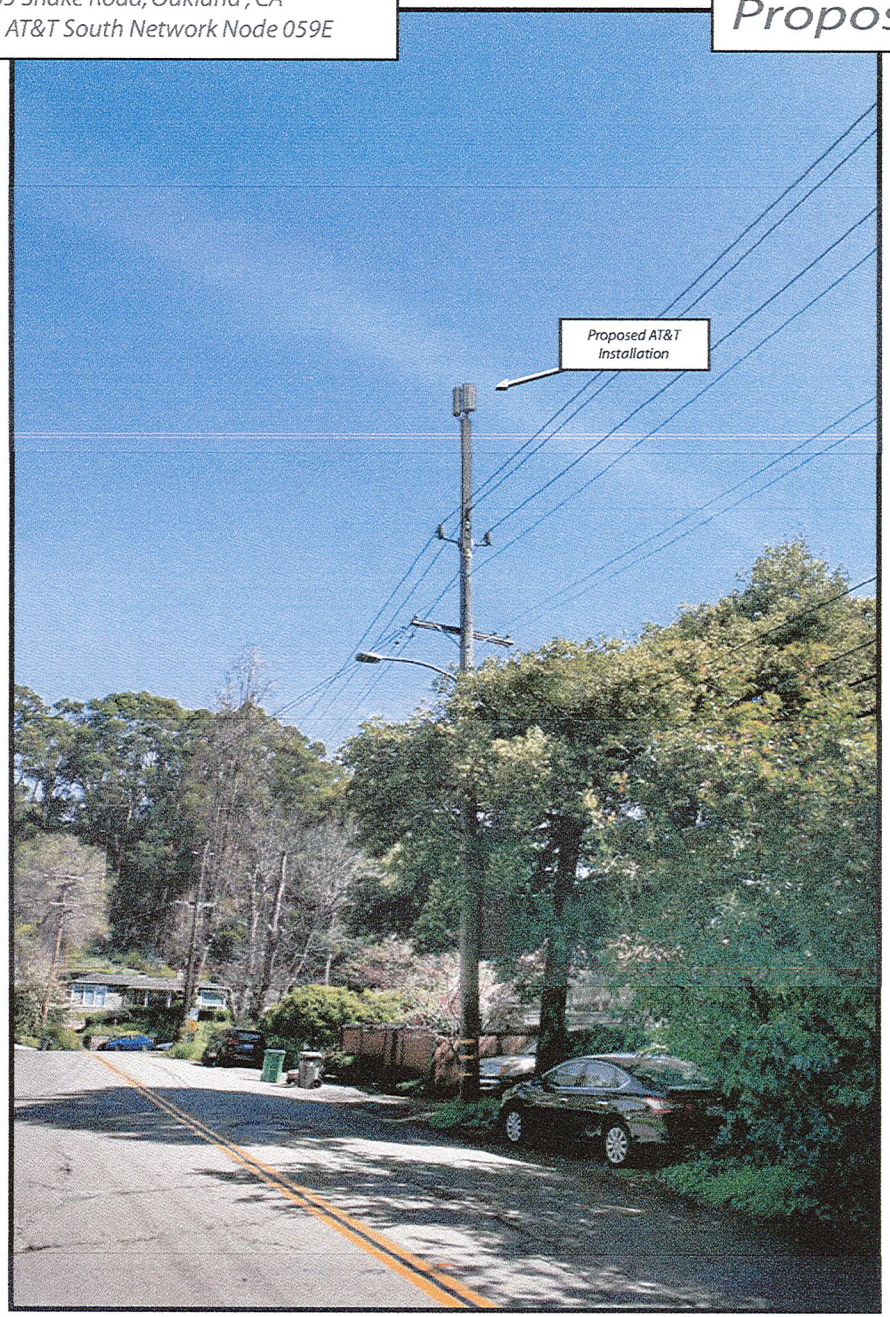
AT&T Wireless

5565 Snake Road, Oakland , CA
Oakhills AT&T South Network Node 059E

Existing



Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

ATTACHMENT A

at&t

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

OAKHILLS AT&T SOUTH NETWORK
OAKS-059E
(PROW) 5550 SNAKE RD, OAKLAND, CA 94611

LEGEND & SYMBOLS

- CENTERLINE
- PROPERTY/LEASE LINE
- PROPOSED CONDUIT
- POWER CONDUIT
- TELEPHONE CONDUIT
- AERIAL ELECTRICAL LINE
- COAXIAL CABLE/CONDUIT
- OVERHEAD CONDUCTORS
- CHAIN LINK FENCING
- SPOT ELEVATION (DATUM)
- FLAG NOTE
- ITEM BALLOON (DETAIL SHEETS)
- DETAIL REFERENCE
- SECTION REFERENCE

ABBREVIATIONS

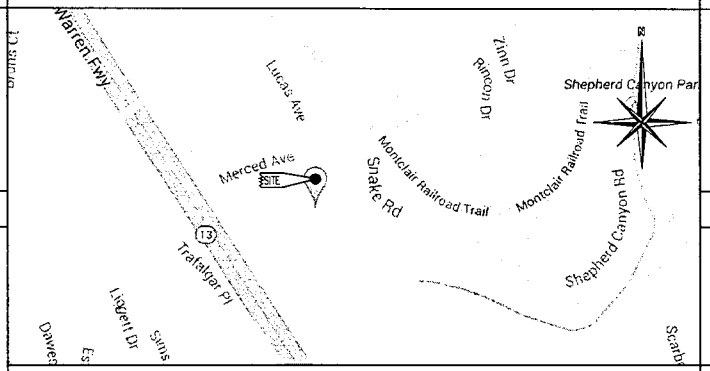
AL	ALUMINUM	FLR	FLOOR	PRELIM	PRELIMINARY
ALY	ALLEY	FT	FOOT	PWR	POWER
ANT	ANTENNA	FS	FARSIDE	QTY	QUANTITY
AGL	ABOVE GROUND LEVEL	FSTNR	FASTENER	R	RADIUS
		GALV	GALVANIZED	RAD	RADIATION
AMSL	ABOVE MEAN SEA LEVEL	GA	GAUGE	RC	RAD CENTER
		GEN	GENERATOR	RCVR	RECEIVER
APVD	APPROVED	GND	GROUND/GROUNDING	ALY	ALLEY
APPROX	APPROXIMATE	ID	INSIDE DIAMETER	RELOC	RELOCATED
AR, A/R	AS REQUIRED	MATL	MATERIAL	REQD	REQUIRED
BAT	BATTERY	MAX	MAXIMUM	SH	SHEET
BC	BOLT CIRCLE	MFR	MANUFACTURER	SPLY	SUPPLY
BLDG	BUILDING	MTD	MOUNTED	SS	STAINLESS STL
BRKT	BRACKET	MTG	MOUNTING	STD	STANDARD
CAB	CABINET	MTR	METER	STL	STEEL
CL	CENTERLINE	MAX	MAXIMUM	STRL	STRUCTURAL
CONC	CONCRETE	MIN	MINIMUM	SQ	SQUARE
CND	CONDUIT	(N)	NEW	SW	SWITCH
DN	DOWN	NS	NEARSIDE	THD	THREAD
(E)	EXISTING	NTS	NOT TO SCALE	THK	THICK
EA	EACH	OC	ON CENTER	TINND	TINNED
EL	ELEVATION	OD	OUTSIDE DIAMETER	TYP	TYPICAL
EMBED	EMBEDMENT	(P)	PROPOSED	UBC	UNIFORM BUILDING CODE
EMER	EMERGENCY	PLYWD	PLYWOOD		
ENCL	ENCLOSURE	PL	PLACES	W/	WITH
EQPT	EQUIPMENT	PNL	PANEL	W/O	WITHOUT
EQ SP	EQUAL SPACE	P/O	PART OF	XFMR	TRANSFORMER
HGT	HEIGHT	POSN	POSITION	XMTR	TRANSMITTER
(F)	FUTURE				

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.

1. CALIFORNIA BUILDING CODE CBC-2010
2. CALIFORNIA ADMINISTRATIVE CODE. (INCL. TITLES 24 & 25) 2010.
3. ANSI/ EIA-222-F LIFE SAFETY CODE NFPA
4. BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA)
5. CALIFORNIA ELECTRICAL CODE CEC-2010.
6. CALIFORNIA MECHANICAL CODE CMC-2010.
7. CALIFORNIA PLUMBING CODE CPC 2010.
8. LOCAL BUILDING CODE(S).
9. CITY AND/OR COUNTY ORDINANCES.
10. MUST COMPLY TO LATEST CALIFORNIA FIRE CODE. (AND LATEST MUNICIPAL FIRE CODE).
11. CALIFORNIA GENERAL ORDER 95 AND 128.

VICINITY MAP



PROJECT DESCRIPTION

THESE DRAWINGS DEPICT A PORTION OF A DISTRIBUTED ANTENNA SYSTEM (DAS) TELECOMMUNICATIONS NETWORK, TO BE CONSTRUCTED BY EXTENET SYSTEMS AND OWNED AND OPERATED BY NEW CINGULAR WIRELESS PCS, LLC, IN THE PUBLIC RIGHT OF WAY PURSUANT TO AUTHORITY GRANTED BY THE CALIFORNIA PUBLIC UTILITIES COMMISSION.

THE MAIN COMPONENTS OF THIS INSTALLATION ARE:
THE ADDITION OF TWO (2) 26.75"X10.625"X6.25" PANEL ANTENNAS, ONE (1) BBU CABINET, ONE (1) RADIO UNIT, ASSOCIATED ELECTRICAL COMPONENTS, AND MOUNTING BRACKETS AS REQUIRED, LOCATED ON AN EXISTING PG&E UTILITY POLE.

DRAWING INDEX

T1	TITLE SHEET & PROJECT INFORMATION
T2	GENERAL NOTES AND SCHEDULES
A1	SITE PLAN
A2	UTILITY POLE ELEVATIONS / RISER DETAILS
D1	EQUIPMENT DETAILS
S1	POWER & RF SAFETY PROTOCOLS

DRIVING DIRECTIONS

FROM: 4430 ROSEWOOD DR, PLEASANTON, CA 94588-3050
TO: 5550 SNAKE RD, OAKLAND, CA 94611
DISTANCE: 24.8 MILES (29 MIN)

1. HEAD EAST ON ROSEWOOD DR 49 FT
2. MAKE A U-TURN 0.5 MI
3. TURN RIGHT ONTO OWENS DR 0.1 MI
4. TURN RIGHT ONTO HACIENDA DR 0.4 MI
5. SLIGHT RIGHT TO MERGE ONTO I-580 W TOWARD OAKLAND 0.2 MI
6. MERGE ONTO I-580 W 11.6 MI
7. KEEP RIGHT AT THE FORK TO STAY ON I-580 W, FOLLOW SIGNS FOR OAKLAND/SAN FRANCISCO 8.3 MI
8. KEEP RIGHT AT THE FORK TO CONTINUE ON CA-13 N/WARREN FWY, FOLLOW SIGNS FOR CALIFORNIA 13/BERKELEY 3.2 MI
9. TAKE THE PARK BLVD EXIT 0.1 MI
10. TURN LEFT ONTO MOUNTAIN BLVD 0.3 MI
11. TURN RIGHT ONTO SNAKE RD 354 FT
12. DESTINATION WILL BE ON THE RIGHT

BUILDING / SITE DATA

LATITUDE:	37.824658	TYPE OF CONSTRUCTION:	ATTACHMENTS TO AN EXISTING WOOD POLE
LONGITUDE:	-122.207878	AREA OF CONST:	-
ELEVATION:	N / A	HANDICAP REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.
JURISDICTION:	CITY OF OAKLAND		
A.P.N.:	048D724400600	TITLE 24 REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. THIS PROJECT IS EXEMPT.
ZONING:	PUBLIC RIGHT OF WAY		
OCCUPANCY:	U, UNMANNED		

SIGNATURE BLOCK

APPROVED BY:	INITIALS:	DATE:
MUNICIPAL AFFAIRS:		
RF MANAGER:		
CONSTRUCTION MANAGER:		
PROJECT MANAGER:		
APPLICANT AGENT:		
APPLICANT:		

PROJECT TEAM

PROPERTY OWNER:
NAME: PUBLIC RIGHT OF WAY
ADDRESS: 5550 SNAKE RD,
OAKLAND, CA 94611

APPLICANT:
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050
CONTACT: VANI MULLER
PHONE: (510) 258-1703

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

APPLICANT AGENT:
MATTHEW YERGOVICH
EXTENET SYSTEMS REAL ESTATE CONTRACTOR FOR AT&T MOBILITY
1826 WEBSTER ST
SAN FRANCISCO, CA 94115
PHONE: (415) 566-3474
EMAIL: myergo@gmail.com

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

ARCHITECT:
AERO COMMUNICATIONS, INC.
5711 RESEARCH DRIVE
CANTON, MI 48188
CONTACT: GARY GETCHELL
PHONE: (510) 292-8918

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at&t
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:
OAKHILLS AT&T SOUTH NETWORK NODE 059E
5550 SNAKE RD
OAKLAND, CA 94611

CURRENT ISSUE DATE:
5/22/15

ISSUED FOR:
PERMITTING

BY:	DATE:	DESCRIPTION:	REV:
ACI	5/22/15	AZIMUTH UPDATE	1
ACI	4/30/15	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:
ACI
Aero Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188
ACI NUMBER: OAKS-059E

CONSTRUCTED BY:
nel SYSTEMS
3030 Warrenville Rd, Suite 340
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www.extenet.com

SEAL OF APPROVAL:

SHEET TITLE:
TITLE SHEET AND PROJECT INFORMATION

SHEET NUMBER: T1
REVISION: 1
5/22/15

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.

2. IMPORTANT NOTICE: SECTION 4215 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT, TOLL FREE 1-800-227-2600, TWO DAYS BEFORE YOU DIG.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE POT HOLE AND LOCATING OF ALL EXISTING UTILITIES THAT CROSS THE PROPOSED TRENCH LINE AND MUST MAINTAIN A 1" MINIMUM VERTICAL CLEARANCE.

4. IF ANY EXISTING HARDSCAPE OR LANDSCAPE INDICATED ON THE APPROVE PLANS IS DAMAGED OR REMOVED DURING DEMOLITION OR CONSTRUCTION, IT SHALL BE REPAIRED AND/OR REPLACED IN KIND PER THE APPROVED PLANS.

5. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.

6. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.

7. MANHOLES OR COVERS SHALL BE LABELED EXTENET.

8. CONTRACTOR SHALL IMPLEMENT AN EROSION CONTROL PROGRAM DURING THE PROJECT CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET THE APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD.

9. THE CONTRACTOR SHALL HAVE EMERGENCY MATERIALS AND EQUIPMENT ON HAND FOR UNFORESEEN SITUATIONS, SUCH AS DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHEREBY FLOWS MAY GENERATE EROSION AND SEDIMENT POLLUTION.

CALTRANS NOTES

1. ANY REMOVED OR DAMAGED STRIPING AND MARKINGS SHALL BE REPLACED IN KIND AS PER CALTRANS STANDARDS AND AT PERMITEE'S EXPENSE.

Call before you dig
811 / 1-800-227-2600
www.usanorth.org

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THAT THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD EXTENET, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.

2. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION AND THROUGHOUT THE COURSE OF CONSTRUCTION WORK, THE CONTRACTOR SHALL FULLY COMPLY WITH "CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH" ACT OF 1973 INCLUDING ALL REVISIONS AND AMENDMENTS THERETO.

3. ALL WORK SHALL CONFORM TO THE LATEST EDITIONS OF GO95,128 AND THE STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY OR STATE AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.

4. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES AS SHOWN HEREON ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST. THE CONTRACTOR SHALL VERIFY PRIOR TO THE START OF CONSTRUCTION AND SHALL USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY OR AGENCY FACILITIES WITHIN THE LIMITS OF WORK, WHETHER THEY ARE SHOWN ON THIS PLAN OR NOT.

5. THE CONTRACTOR SHALL NOTIFY THE CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT, AT LEAST TWO DAYS BEFORE START OF ANY WORK REQUIRING THEIR INVOLVEMENT.

6. THE CITY, COUNTY OR STATE SHALL SPECIFY THE EXPIRATION PERIOD OF THE PERMIT FOR THIS CONSTRUCTION PROJECT.

7. THE MINIMUM COVER FOR ALL CONDUITS PLACED UNDERGROUND SHALL BE 30 INCHES TO THE FINISHED GRADE AT ALL TIMES.

8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER.

9. ALL A.C. AND/OR CONCRETE PAVEMENT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEERS.

10. ALL SHRUBS, PLANTS OR TREES THAT HAVE BEEN DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.

11. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH THE REQUIRED LIABILITY INSURANCE FORMS. CLEARLY DEMONSTRATING THAT EXTENET, THE CITY, COUNTY OR STATE IS ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE IN THE AMOUNT OF $1,000,000.00 FOR THIS CONSTRUCTION PROJECT.

12. VAULTS, PEDESTALS, CONDUITS AND OTHER TYPES OF SUBSTRUCTURE ARE EITHER SPECIFIED ON THIS PLAN OR WILL BE SPECIFIED BY THE CONSTRUCTION ENGINEER. ANY AND ALL DEVIATIONS FROM THE SPECIFIED TYPES OF MATERIAL MUST BE APPROVED BY THE SYSTEM ENGINEER, IN WRITING BEFORE INSTALLATION THEREOF.

13. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES IN INCLUDING SEWER LATERALS & WATER SERVICES TO INDIVIDUAL LOTS BOTH VERTICAL AND HORIZONTAL PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.

14. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISION IS NECESSARY BECAUSE OF LOCATION OF EXISTING UTILITIES.

15. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM EXISTING RECORDS AND CORROBORATED, WHERE POSSIBLE, WITH FIELD TIES. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATIONS SHOWN, BOTH HORIZONTAL AND VERTICALLY, PRIOR TO CONSTRUCTION. IF EXISTING LOCATIONS VARY SUBSTANTIALLY FROM THE PLANS, THE ENGINEER SHOULD BE NOTIFIED TO MAKE ANY CONSTRUCTION CHANGES REQUIRED.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, SHALL BE PERFORMED BY THE CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY, COUNTY AND STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORT (WQTR), AND/OR WATER POLLUTION CONTROL PLAN (WPCP).

2. FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.

3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES, THE CONTRACTOR SHALL ENSURE THAT WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND THAT A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL SACS OR DIKES.

4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.

5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.

6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.

7. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

8. THE CONTRACTOR SHALL RESTORE ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER OF RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.

9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS MAY BE REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES, WHICH MAY ARISE.

10. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.

11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.

12. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.

13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.

14. THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING FOR THE AREAS FOR WHICH THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

15. THE CONTRACTOR SHALL ARRANGE FOR WEEKLY MEETINGS DURING OCTOBER 1ST TO APRIL 30TH FOR PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED PERSON, EROSION CONTROL SUBCONTRACTOR IF AN, ENGINEER OF WORK, OWNER/DEVELOPER AND THE RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION/SEDIMENT CONTROL MEASURE AND OTHER RELATED CONSTRUCTION ACTIVITIES.

GENERAL NOTES

SCALE NTS | 2

ROW GROUND CONSTRUCTION NOTES:

1. 120/240 POWER REQUIRED FOR 3-WIRE SERVICE.
2. GC TO REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, FEDERAL, GO95 AND GO128 STANDARDS AND REGULATIONS.
4. CALL USA 48 HOURS PRIOR TO EXCAVATING AT (800) 227-2600.
5. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
6. ALL EQUIPMENT TO BE BONDED.
7. METERING CABINET REQUIRES 3' CLEARANCE AT DOOR OPENING.
8. CAULK CABINET BASE AT PAD.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 5 OHMS OR LESS.
2. 5/8"x8' ROD, CAD WELD BELOW GRADE
3. #6 GROUND AND BOND WIRE.
4. WOOD MOLDING, STAPLED EVERY 3' AND AT EACH END
5. GROUNDS 3' FROM POLE.
6. PLACE 3 #10GA WIRES FROM BREAKER TO METER BOX.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND USE SCHEDULE 40.
2. FOR RISERS USE SCHEDULE 80.
3. PLACE 2" GALVANIZED STEEL CONDUIT FOR ANY CONDUIT UNDER 3", STUB UP 10' THEN CONVERT TO SCHEDULE 80.
4. CONVERT 4" CARRIER CONDUIT TO 3" AT BASE OF POLE.
5. GC TO STUB UP POLE 10' w/3" POWER CONDUIT, POWER CO. TO CONVERT FROM 3" SCH. 80 TO 2" SCH. 80 FROM TOP OF STUB UP.
6. ALL CONDUIT WILL BE MAN DRILLED AND EQUIPPED WITH 3/8" PULL ROPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 40" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 30" MINIMUM COVER FOR COMMUNICATIONS CONDUIT.
3. SAND SHADING MINIMUM 1" UNDER CONDUITS, AND 6" COVERING ON TOP REQUIRED.
4. ALL ELECTRICAL SERVICE CONDUITS FROM POWER COMPANY, WHETHER FROM POLES, TRANSFORMERS, OR OTHER LOCATIONS; WILL BE SLURRY BACKFILLED.
5. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
6. IN DIRT SLURRY 18" FROM GRADE, AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
7. PLACE WARNING TAPE IN TRENCH 12" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND RING.

ROW UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1-1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE (12.00).
5. 90° SHORT SWEEPS UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER CABLE ID TAGS ON BOTH SIDES OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. PLACE GPS ON ARM WITH SOUTHERN SKY EXPOSURE AT MINIMUM 6' FROM TRANSMIT ANTENNA, WHICH IS 24" AWAY FROM CENTER OF POLE.
9. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
10. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

ROW CONSTRUCTION GENERAL NOTES

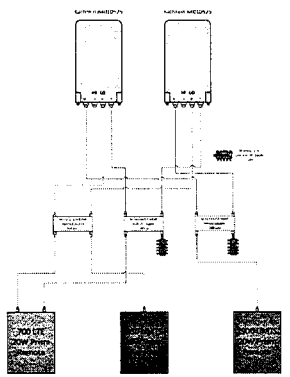
SCALE NTS | 3

WIND LOADING INFORMATION	
ANTENNA/MOUNT ARM AREA TOTAL	1.83 SQ. FT.
TOP GRADE	54'-11"
BOTTOM GRADE	52'-9"
METER/BREAKER AREA TOTAL	1.75 SQ. FT.
TOP GRADE	8'-11"
BOTTOM GRADE	8'-0"
BATTERY BACK-UP AREA TOTAL	IN SHROUD
TOP GRADE	-
BOTTOM GRADE	-
PRISM DECK AREA TOTAL	IN SHROUD
TOP GRADE	-
BOTTOM GRADE	-
EQUIPMENT SHROUD AREA TOTAL	16 SQ. FT.
TOP GRADE	18'-10"
BOTTOM GRADE	10'-10"
COAX RISER SIZE	3"Ø
COAX RISER TOP GRADE	51'-0"
COAX RISER BTM GRADE	11'-7"
PWR RISER SIZE	1"ø
PWR RISER TOP GRADE	34'-3"
PWR RISER BTM GRADE	8'-0"

ANTENNA & CABLE SCHEDULE

ANTENNA SECTOR	AZIMUTH	ANTENNA MAKE / MODEL	COAXIAL CABLE LENGTH	CABLES PER SECTOR	CABLE SIZE
SECTOR ALPHA	25°	KATHREIN 840-10525	48'/3'	4/6	1/2"
SECTOR BETA	100°	KATHREIN 840-10525			
SECTOR GAMMA					

NOTE: CONTRACTOR TO FIELD VERIFY CABLE LENGTHS PRIOR TO ORDERING, FABRICATION, OR INSTALLATION OF CABLES.



LOADING AND ANTENNA CABLE SCHEDULES

SCALE NTS | 1

at&t

NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:

OAKHILLS AT&T
SOUTH NETWORK
NODE 059E
5550 SNAKE RD
OAKLAND, CA 94611

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BY:	DATE:	DESCRIPTION:	REV:
ACI	5/22/15	AZIMUTH UPDATE	1
ACI	4/30/15	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:

ACI
Aero Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188

ACI NUMBER: OAKS-059E

CONSTRUCTED BY:

net SYSTEMS
3030 Warrenville Rd, Suite 340
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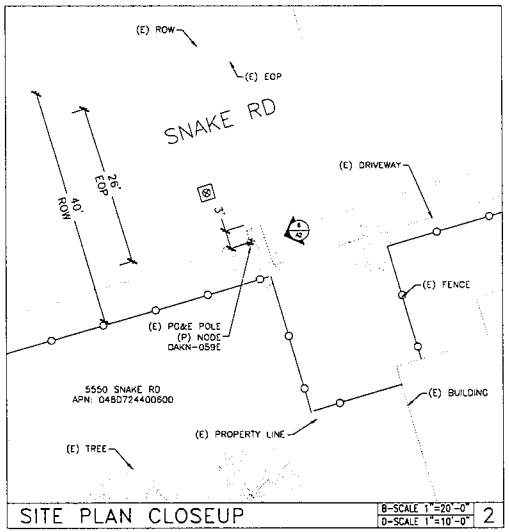
SEAL OF APPROVAL:

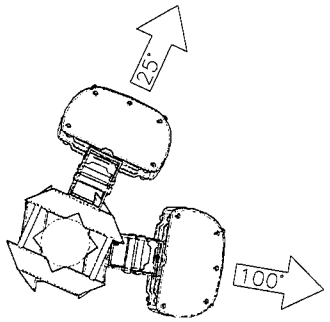
SHEET TITLE:

GENERAL NOTES AND SCHEDULES

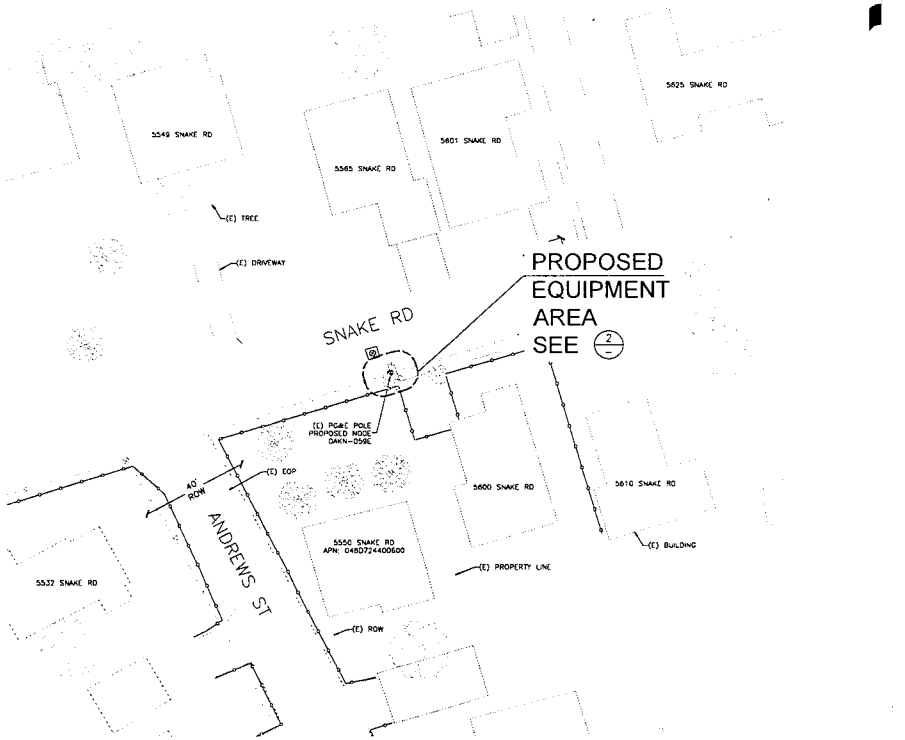
SHEET NUMBER: T2 | REVISION: 1 | 5/22/15



SITE PLAN CLOSEUP — B-SCALE 1"=20'-0" / D-SCALE 1"=10'-0" — 2



ANTENNA AZIMUTHS — SCALE NTS — 3



SITE PLAN — 0' 5' 15' 25' 50' — B-SCALE 1"=50'-0" / D-SCALE 1"=25'-0" — 1

at&t

NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

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www.extenet.com

SEAL OF APPROVAL:

SHEET TITLE:
SITE PLAN

SHEET NUMBER: A1 — REVISION: 1 — 5/22/15

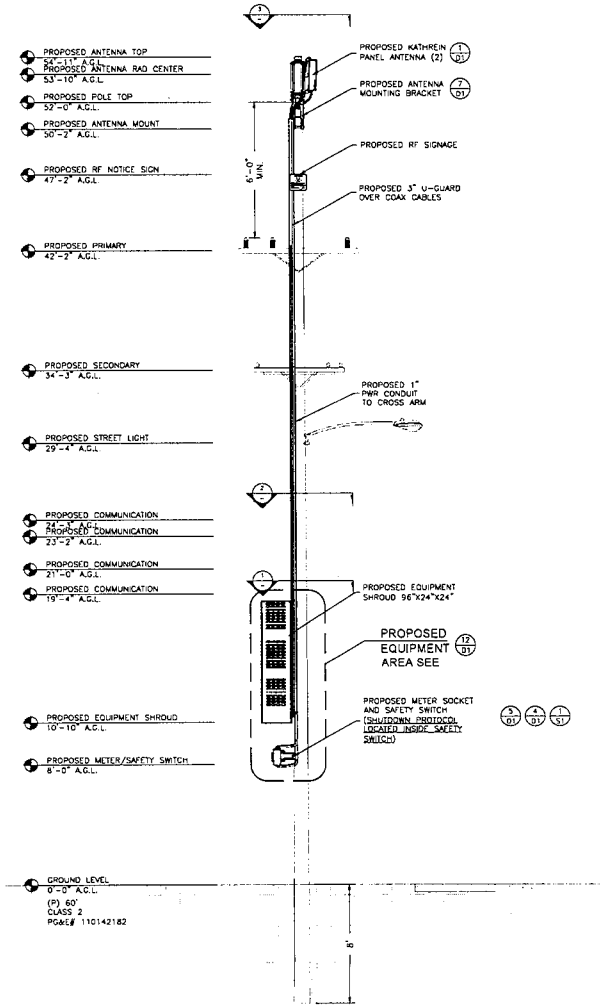
COMMUNICATIONS MAKE-READY

1. INSTALL PG&E 1" SCH 80 CONDUIT AT 4:30 POSITION FOR POWER SERVICE.
2. INSTALL 3" SCH 80 U-GUARD AT 2:00 POSITION OVER COAX.
3. INSTALL SHROUD (RADIO & BBU), METER SOCKET, & SAFETY SWITCH 4" OFF OF POLE (USING UNISTRUTS) AT 3:00 POSITION.
4. RELOCATE CLIMBING PEGS AT 6:00 POSITION, 8'-6" AGL TO COMM ZONE, TO 9:00 POSITION.

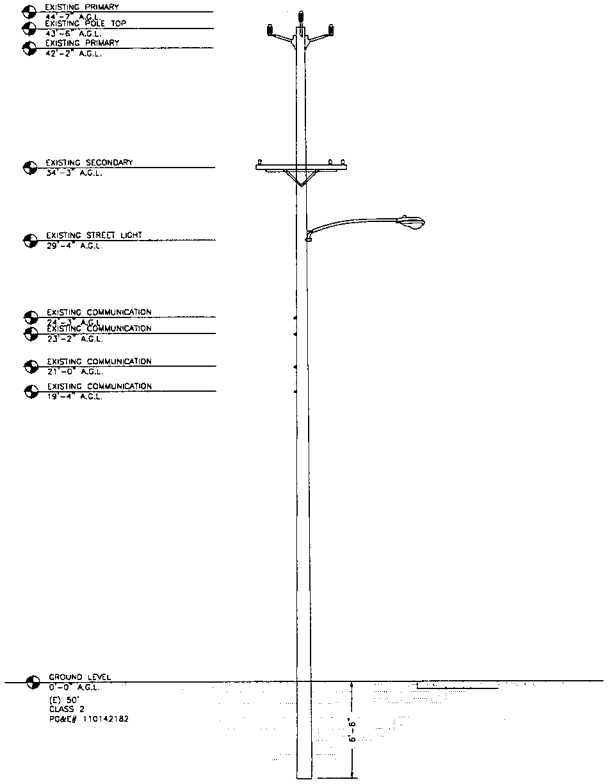
POWER MAKE-READY

1. REPLACE EXISTING CL2 50' POLE WITH CL3 60' POLE.
2. REFRAME PRIMARY TO 8' ARM.
3. INSTALL (2) PANEL ANTENNAS W/ MOUNTING BRACKET ON POLE TOP AT 52'-0" AGL.
4. INSTALL COMBINERS AND (4/6) 1/2" COAX.
5. INSTALL PG&E 1" SCH 80 CONDUIT TO SECONDARY CROSS ARM, AT 4:30 POSITION FOR POWER SERVICE.
6. INSTALL 3" SCH 80 U-GUARD AT 2:00 POSITION OVER COAX.
7. PROVIDE 120/240 3-WIRE SINGLE PHASE, 100 AMP SERVICE TO 1" PG&E CONDUIT AT 10:30 POSITION TO METER SOCKET FROM SECONDARY 34'-3" AGL.

MAKE-READY NOTES 4



PROPOSED ELEVATION NORTHEAST — B-SCALE 1/8"=1'-0" D-SCALE 1/4"=1'-0" — 6



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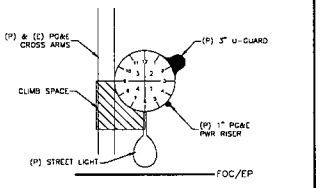
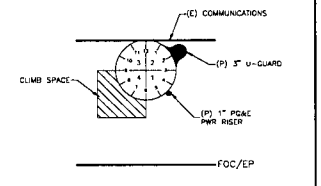


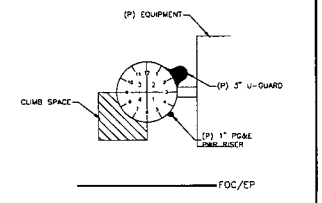
SNAKE RD

POWER SPACE PLAN VIEW 3



SNAKE RD

COMM. SPACE PLAN VIEW 2



SNAKE RD

EQUIP. SPACE PLAN VIEW 1

at&t
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:

OAKHILLS AT&T SOUTH NETWORK NODE 059E
5550 SNAKE RD
OAKLAND, CA 94611

CURRENT ISSUE DATE: 5/22/15

ISSUED FOR: PERMITTING

BY:	DATE:	DESCRIPTION:	REV:
ACI	5/22/15	AZIMUTH UPDATE	1
ACI	4/30/15	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:

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Acro Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188

ACI NUMBER: OAKS-059E

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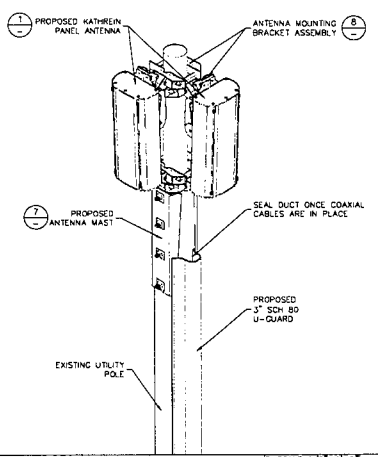
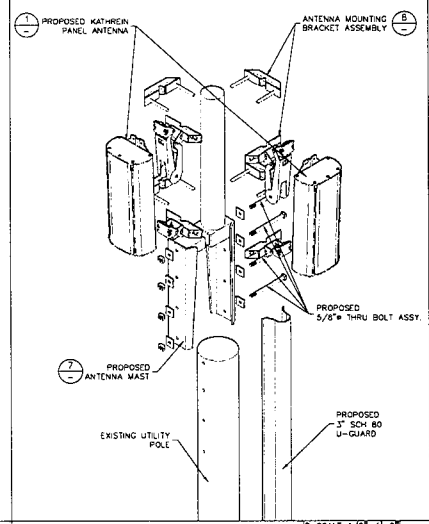
SEAL OF APPROVAL:

SHEET TITLE: ELEVATIONS & RISER DETAILS

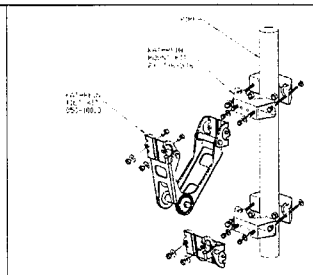
SHEET NUMBER: A2 REVISION: 1 5/22/15



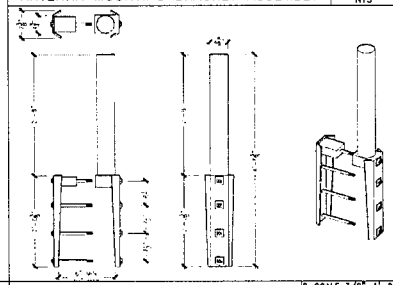
ANTENNA CONFIGURATION B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" 13



POLE TOP ANTENNA ASSEMBLY B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" 11

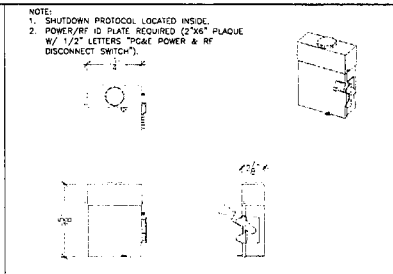


ANTENNA MOUNTING BRACKET ASSEMBLY SCALE NTS 8

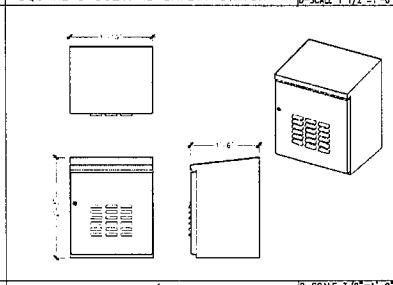


POLE TOP ANTENNA MAST B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" 7

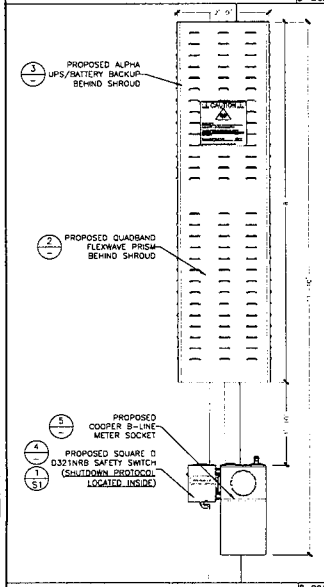
NOTE:
1. SHUTDOWN PROTOCOL LOCATED INSIDE.
2. POWER/RF ID PLATE REQUIRED (2"X6" PLAQUE W/ 1/2" LETTERS "DC&E POWER & RF DISCONNECT SWITCH").



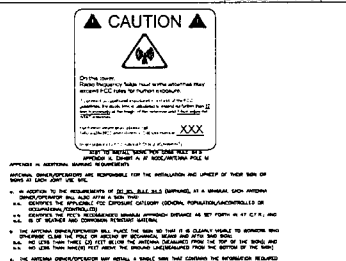
SQUARE D D321NRB SAFETY SWITCH B-SCALE 3/4"=1'-0" D-SCALE 1 1/2"=1'-0" 4



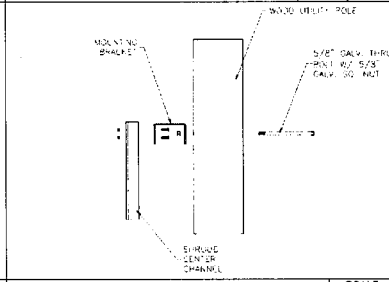
ALPHA MMOE UPS/BATTERY BACKUP B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" 3



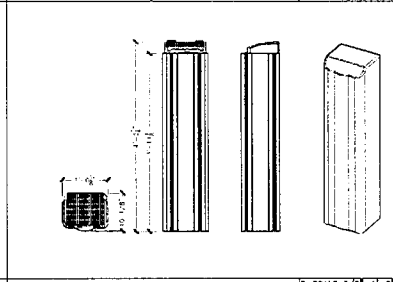
EQUIPMENT CONFIG. B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" 12



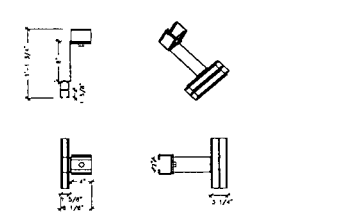
RF WARNING SIGNAGE SCALE NTS 10



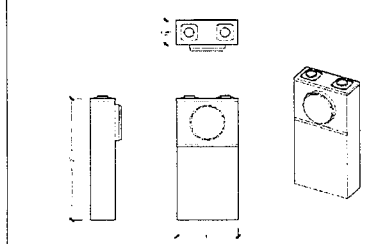
SHROUD MOUNTING ASSY. SCALE NTS 6



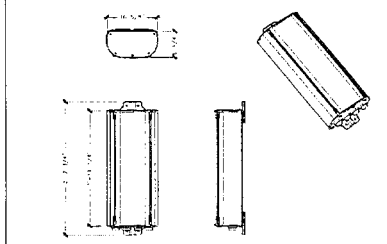
QUADBAND FLEXWAVE PRISM B-SCALE 3/8"=1'-0" D-SCALE 3/4"=1'-0" 2



LADDER BRACKET B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" 9



COOPER B-LINE METER SOCKET 114TB B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" 5



KATHREIN PANEL ANTENNA B-SCALE 1/2"=1'-0" D-SCALE 1"=1'-0" 1

at&t
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

PROJECT INFORMATION:

OAKHILLS AT&T SOUTH NETWORK NODE 059E
5550 SNAKE RD
OAKLAND, CA 94611

CURRENT ISSUE DATE:

5/22/15

ISSUED FOR:

PERMITTING

BY:	DATE:	DESCRIPTION:	REV:
ACI	5/22/15	AZIMUTH UPDATE	1
ACI	4/30/15	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:

ACI
Acro Communications Inc.
1-800-825-4ACI
5711 Research Drive
Canton, MI 48188
ACI NUMBER: OAKS-059E

CONSTRUCTED BY:

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3030 Warrenville Rd, Suite 340
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SEAL OF APPROVAL:

SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER: D1

REVISION: 1 5/22/15

SHUTDOWN PROTOCOL 7"X9" LAMINATED CARD CARDSTOCK

at&t

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.

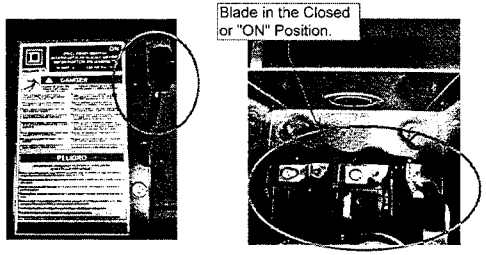
(C) Notify AT&T (New Cingular) Switch Center when the emergency work is completed.

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

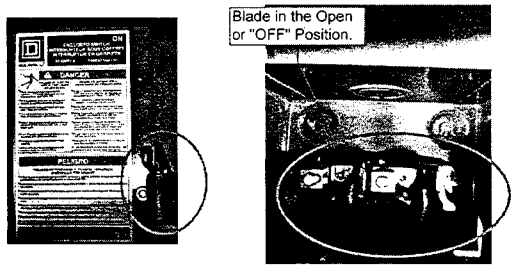
FRONT

at&t

Switch in the Closed Position ("ON")



Switch in the Open Position ("Off")



BACK

SHUTDOWN PROTOCOL

SCALE NTS | 1

at&t
NEW CINGULAR WIRELESS PCS, LLC
4430 ROSEWOOD DR, BLDG 3
PLEASANTON, CA 94588-3050

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BY:	DATE:	DESCRIPTION:	REV:
ACI	5/22/15	AZIMUTH UPDATE	1
ACI	4/30/15	ZDs	0
BY	DATE	DESCRIPTION	REV

PLANS PREPARED BY:
ACI
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ACI NUMBER: OAKS-059E

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SEAL OF APPROVAL:

SHEET TITLE:
POWER & RF SAFETY PROTOCOLS

SHEET NUMBER: S1
REVISION: 1
5/22/15

ATTACHMENT A

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June 3, 2015

City Planner
Planning Department
City of Oakland
250 Frank Ogawa Plaza, 2nd Floor
Oakland, CA 94612

Re: Proposed AT&T Mobility DAS Node Installation

Applicant:	**New Cingular Wireless PCS, LLC (d/b/a AT&T Mobility)**
Nearest Site Address:	**Public Right of Way near 5550 Snake Road**
Site ID:	**SW-CA-OAKHILLS-ATT Node 59E**
Latitude/Longitude:	**37.824668, -122.207878**

Dear City Planner,

On behalf of New Cingular Wireless PCS, LLC, d/b/a AT&T Mobility ("AT&T"), this letter and attached materials are to apply for a design review permit to install a distributed antenna system ("DAS") node in the public right-of-way near 5550 Snake Road ("Node 59").[1] This is the same DAS node that AT&T pursued by its previous application filed on February 4, 2013 at 2189 Andrews Street (Node 59A / DR13-042). The original application was withdrawn in order to work with city staff and redesign the facility. Then on March 6, 2014, we withdrew that application and filed a new application for an AT&T facility on a utility pole at 2181 Andrews Street (Node 59B / PLN14-041). This application was strongly opposed by the neighborhood so the present application has been prepared as an alternative after working with Planning Staff for the past year. The following is an explanation of the existing site, a project description of the redesigned facility, the project purpose and justifications in support of this proposal.

A. Project Description.

The proposed location for our facility currently consists of an approximate 44 feet seven inch tall wooden utility pole in the public right-of-way on the south side of Snake Road between Andrews Street and Shepherd Canyon Road, at about 5550 Snake Road. Communication lines are attached to the pole at 24 feet three inches, 23 feet two inches, 21 feet, and 19 feet four inches above ground. Primary power lines are on the pole at about 44 feet seven inches, 43 feet six inches, and 42 feet two inches above ground. A secondary power line is on the pole at about 34 feet three inches above ground. A cobra head street light is located on the pole at about 29 feet four inches above ground.

AT&T proposes to swap out the existing pole for a newer pole and add two panel antennas with a mounting bracket to the top of the pole. The antennas are approximately two feet long, 10 inches wide and six inches deep. The overall height to the top tips of the antennas will be 54 feet 11 inches above ground. We also propose a singular equipment box approximately 96 inches long by 24 inches wide and deep on this pole, with radio and battery equipment inside. A miniature emergency shut-off safety switch and electricity meter will be placed on the pole at about eight feet above ground. The equipment will be connected to telecommunications and lines already on the pole. The primary power lines at 42 feet two inches will be placed on a new cross arm and the secondary power lines will be placed on a

[1] AT&T expressly reserves all rights concerning the city's jurisdiction to assert zoning regulation over the placement of wireless facilities in the public rights-of-way.

ExteNet Systems
For AT&T Mobility
1826 Webster Street • San Francisco, CA 94115
(415) 596-3474 • myergovich@extenetsystems.com

new cross arm at 34 feet three inches above the ground. All equipment will be painted brown to match the utility pole. Our proposal is depicted in the attached design drawings and photographic simulations.

This is an unmanned facility that will operate at all times (24 hours per day, seven days per week) and will be serviced about once per year by an AT&T technician. Our proposal will greatly benefit the area by improving wireless telecommunications service as detailed below.

B. Project Purpose.

The purpose of this project is to provide AT&T third and fourth generation (3G and 4G) wireless voice and data coverage to the surrounding area where there is currently a significant gap in service coverage. These wireless services include mobile telephone, wireless broadband, emergency 911, data transfers, electronic mail, Internet, web browsing, wireless applications, wireless mapping and video streaming. The proposed node is part of a larger DAS providing coverage to areas of the Oakland, Berkeley, Kensington and El Cerrito that are otherwise very difficult or impossible to cover using traditional macro wireless telecommunications facilities due to the local topography and mature vegetation. The attached radio frequency propagation maps depict AT&T's larger DAS project. Further radio frequency details are set forth in the attached Radio Frequency Statement, including propagation maps depicting existing and proposed coverage in the vicinity of Node 59E.

A DAS network consists of a series of radio access nodes connected to small telecommunications antennas, typically mounted on existing wooden utility poles within the public rights-of-way, to distribute wireless telecommunications signals. DAS networks provide telecommunications transmission infrastructure for use by wireless services providers. These facilities allow service providers such as AT&T to establish or expand their network coverage and capacity. The nodes are linked by fiber optic cable that carry the signal stemming from a central equipment hub to a node antenna. Although the signal propagated from a node antenna spans over a shorter range than a conventional tower system, DAS can be an effective tool to close service coverage gaps.

C. Project Justification, Alternative Site and Design Analysis.

Node 59E is an integral part of the overall DAS project, and it is located in a difficult coverage area because of its winding roads, hilly terrain and plentiful trees. The coverage area consists of a hilly Oakland Hills neighborhood around Snake Road, Shepherd Canyon Road, Andrews Street, Mountain Boulevard and surrounding areas. Node 59E will cover transient traffic along the roadways and provide in-building service to the surrounding residences as depicted in the propagation maps, which are exhibits to the attached Radio Frequency Statement.

Based on AT&T's analysis of alternative sites, if the originally chosen Nodes 59A and 59B are not preferred by the City then the currently proposed Node 59E at 5550 Snake Road is the least intrusive means to close AT&T's significant service coverage gap in the area because it uses utility infrastructure, adding small equipment without disturbing the character of the neighborhoods served. Deploying a DAS node at an existing pole location minimizes any visual impact by utilizing an inconspicuous spot. Installing antennas and equipment at this existing pole location preempts the need to propose any new infrastructure in this coverage area. Node 59E should be barely noticeable amidst the backdrop of trees and terrain.

The DAS node RF emissions are also much lower than the typical macro site and appropriate for the area, and they are fully compliant with the FCC's requirements for limiting human exposure to radio frequency energy. The attached radio frequency engineering analysis provided by Hammett & Edison, Inc., Consulting Engineers, confirms that the proposed equipment will operate well within (and actually far below) all applicable FCC public exposure limits. The facility will also comply with California Public Utility Commission (CPUC) General Orders 95 (concerning overhead line design, construction and maintenance) and 170 (CEQA review) that govern utility use in the public right-of-way.

This proposed redesign is a viable alternative design developed according to our discussions with the Planning Department in the context of Applications DR13-042 and PLN14-041. As discussed with City Planning Staff, Node 59E is the least intrusive option because antennas can be nestled amidst large trees without imposing any view

impact. Also the proposed location is a good coverage option because it sits at a spot from which point AT&T can adequately propagate its wireless signal.

AT&T considered alternative sites on other utility poles in this area but none of these sites is as desirable from construction, coverage or aesthetics perspectives. The proposed location is approximately equidistant from other DAS nodes that AT&T plans to place in surrounding hard-to-reach areas, so that service coverage can be evenly distributed. There are a number of trees near the proposed site that will allow the installation to blend in with the backdrop of foliage. The other utility poles in the area are more conspicuous than the proposed pole. In addition to the utility poles proposed to host Node 59E, AT&T considered alternative sites set forth in the attached Alternative Site Analysis.

Alternative designs were considered including ground-mounting an equipment cabinet near the pole rather than pole-mounting any equipment. However, it was decided that there is insufficient room for ground-mounted equipment and pole-mounted equipment can best blend-in with the pole. We also evaluated whether equipment could be undergrounded but unfortunately this is not possible because there is insufficient right-of-way space for the necessary equipment access and the equipment would be compromised from saturation by rainwater. The antennas cannot be undergrounded because they rely on a line-of-site in order to properly transmit a signal.

Revised drawings, an AT&T Radio Frequency Statement, propagation maps, photographic simulations, and a radio-frequency engineering analysis are included with this packet.

As this application seeks authority to install a wireless telecommunication facility, the FCC's Shot Clock Order[2] requires the city to issue its final decision on AT&T's application within 150 days. We respectfully request expedited review and approval of this application. Feel free to contact me if you have any questions. Thank you.

Thank you.

Best Regards,
EXTENET SYSTEMS

Matthew S. Yergovich
For AT&T Mobility

[2] *See* Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B), WT Docket No. 08-165, Declaratory Ruling, 24 F.C.C.R. 13994 (2009).

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ATTACHMENT B

AT&T Mobility • DAS Node No. OAKS-059E
5550 Snake Road • 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 5550 Snake Road near Oakland, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

AT&T proposes to install directional panel antennas on top of a new utility pole to replace an existing pole located near 5550 Snake Road 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

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 Aero Communications, Inc., dated May 22, 2015, it is proposed to install two Kathrein Model 840-10525 directional panel antennas on top of a new 52-foot utility pole to replace the existing utility pole sited in the public right-of-way in front of the residence located at 5550 Snake Road in Oakland. The antennas would employ no downtilt, would be mounted at an effective height of about 54 feet above ground, and would be oriented toward 25°T and 100°T. The maximum effective radiated power in any direction would be 219 watts, representing simultaneous operation at 104 watts for PCS, 61 watts for cellular, and 54 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.00085 mW/cm^2, which is 0.16% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby residence* is 0.0013 mW/cm^2, which is 0.26% 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.

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* Located at least 30 feet away, based on the drawings.

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 antennas, including employees and contractors of AT&T and of the utility company. No access within 4 feet directly in front of the antennas themselves, such as might occur during certain maintenance activities, 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 on the pole at or 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 the base station proposed by AT&T Mobility near 5550 Snake Road 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 is 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.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-20309, which expires on March 31, 2017. This work has been carried out under her direction, and all statements are true and correct of her own knowledge except, where noted, when data has been supplied by others, which data she believes to be correct.

Andrea L. Bright, P.E.
707/996-5200

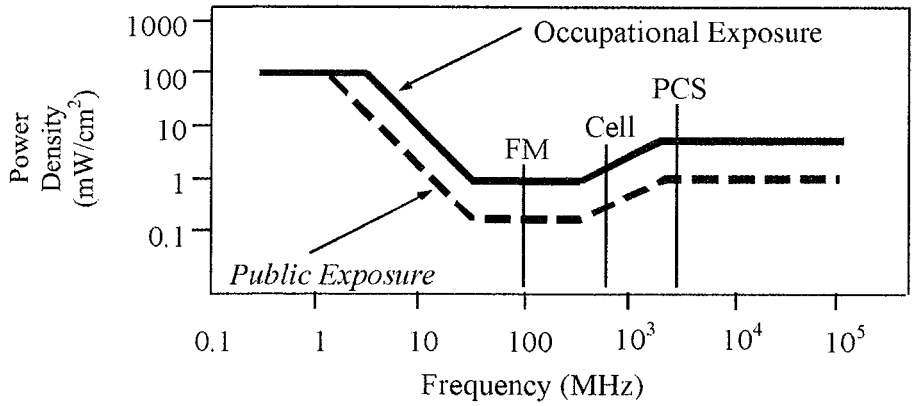
May 27, 2015

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	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/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/f^2*
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	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	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/cm^2,

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

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

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

Far Field.

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

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

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

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

AT&T Mobility Radio Frequency Statement
DAS Node 59: New Utility Pole in Public Right-of-Way
Near 5550 Snake Rd., Oakland, CA

I am the AT&T radio frequency engineer assigned to the proposed wireless telecommunications facility ("Node 59"), which is a distributed antenna system ("DAS") node to be located on a new utility pole in the public right-of-way near 5550 Snake Rd., Oakland (the "Property"). Based on my personal knowledge of the Property and with AT&T's wireless network, as well as my review of AT&T's records with respect to the Property and its wireless telecommunications facilities in the surrounding area, I have concluded that the work associated with this permit request is needed to close a service coverage gap in the area immediately surrounding the Property.

The service coverage gap is caused by inadequate infrastructure in the area. As explained further in Exhibit 1, AT&T's existing facilities cannot adequately serve its customers in the desired area of coverage, let alone address rapidly increasing data usage. Moreover, 4G LTE service coverage has not yet been fully deployed in this area. To remedy this service coverage gap, AT&T needs to construct a new wireless telecommunications facility.

AT&T uses industry standard propagation tools to identify the areas in its network where signal strength is too weak to provide reliable in-building service quality. This information is developed from many sources including terrain and clutter databases, which simulate the environment, and propagation models that simulate signal propagation in the presence of terrain and clutter variation. AT&T designs and builds its network to ensure customers receive reliable in-building service quality.

Exhibit 2 to this Statement is a map of the existing service coverage (without Node 59) in the area at issue. It includes service coverage provided by existing AT&T sites. The green shaded areas depict areas within a signal strength range that provide acceptable in-building service coverage. In-building coverage means customers are able to place or receive a call on the ground floor of a building. The yellow shaded areas depict areas within a signal strength range that provide acceptable in-vehicle coverage. In this area, an AT&T customer should be able to successfully place or receive a call within a vehicle. The blue shading depicts areas within a signal strength range in which a customer might have difficulty receiving a consistently acceptable level of service. The quality of service experienced by any individual can differ greatly depending on whether that customer is indoors, outdoors, stationary, or in transit. Any area in the blue or yellow category is considered inadequate service coverage and constitutes a service coverage gap.

Exhibit 3 predicts service coverage in the vicinity of the Property if the Node 59 antennas are placed as proposed in the application. As shown by this map, placement of Node 59 closes the significant 3G service coverage gap in the area immediately surrounding the Property.

In addition to these 3G wireless service gap issues; AT&T is in the process of deploying its 4G LTE service in Oakland with the goal of providing the most advanced personal wireless experience available to residents of the City. 4G LTE is capable of delivering speeds up to 10 times faster than industry-average 3G speeds. LTE technology also offers lower latency, or the processing time it takes to move data through a network, such as how long it takes to start downloading a webpage or file once a customer has sent the request. Lower latency helps to improve the quality of personal wireless services. What's more, LTE uses spectrum more efficiently than other technologies, creating more space to carry data traffic and services and to deliver a better overall network experience.

Exhibit 4 is a map that depicts 4G LTE service in the area surrounding the Property, and it shows a significant 4G LTE service coverage gap in the area. Exhibit 5 shows that after Node 59 is on air, 4G LTE service is available both indoors and outdoors in the area. This is important not only to bring 4G LTE to residents of Oakland but also because as existing customers migrate to 4G LTE, the LTE technology will provide the added benefit of reducing 3G data traffic, which can cause capacity issues on the UMTS (3G) network during peak usage periods, especially in light of the forecasted increase in usage noted in Exhibit 1.

I have a Bachelor's Degree in Electrical Engineering from Ain Shams University, and I have worked as a radio frequency design engineer in the wireless communications industry for over 14 years.

_____

Amr Kharaba

May 14th, 2015

EXHIBIT 1
Prepared by AT&T Mobility

AT&T's digital wireless technology converts voice or data signals into a stream of digits to allow a single radio channel to carry multiple simultaneous signal transmissions. This technology allows AT&T to offer services such as secured transmissions and enhanced voice, high-speed data, texting, video conferencing, paging and imaging capabilities, as well as voicemail, visual voicemail, call forwarding and call waiting that are unavailable in analog-based systems. With consumers' strong adoption of smartphones, customers now have access to wireless broadband applications, which consumers utilize at a growing number.

Mobile data traffic in the United States grew by 75,000 percent over a six-year span, from 2001-2006. And in the eight years that followed, mobile data traffic on AT&T's national wireless network increased 100,000 percent (from 2007-2014). The FCC noted that U.S. mobile data traffic grew almost 300% in 2011, and driven by 4G LTE smartphones and tablets, traffic is projected to grow an additional 16-fold by 2016.

Mobile devices using AT&T's technology transmit a radio signal to antennas mounted on a tower, pole, building, or other structure. The antenna feeds the signal to electronic devices housed in a small equipment cabinet, or base station. The base station is connected by microwave, fiber optic cable, or ordinary copper telephone wire to the Radio Network Controller, subsequently routing the calls and data throughout the world.

The operation of AT&T's wireless network depends upon a network of wireless communications facilities. The range between wireless facilities varies based on a number of factors. The range between AT&T mobile telephones and the antennas in and nearby Oakland,

may be able to initiate and complete calls on AT&T's network (or other networks) on their wireless phones. These problems also can and do occur even when certain customers' wireless phones indicate "all bars" of signal strength on the handset.

The bars of signal strength that individual customers can see on their wireless phones are an imprecise and slow-to-update estimate of service quality. In other words, a customer's wireless phone can show "four bars" of signal strength, but that customer can still, at times, be unable to initiate voice calls, complete calls, or download data reliably and without service interruptions.

To determine where new or upgraded telecommunications facilities need to be located for the provision of reliable service in any area, AT&T's radio frequency engineers rely on far more complete tools and data sources than just signal strength from individual phones. AT&T creates maps incorporating signal strength that depict existing service coverage and service coverage gaps in a given area.

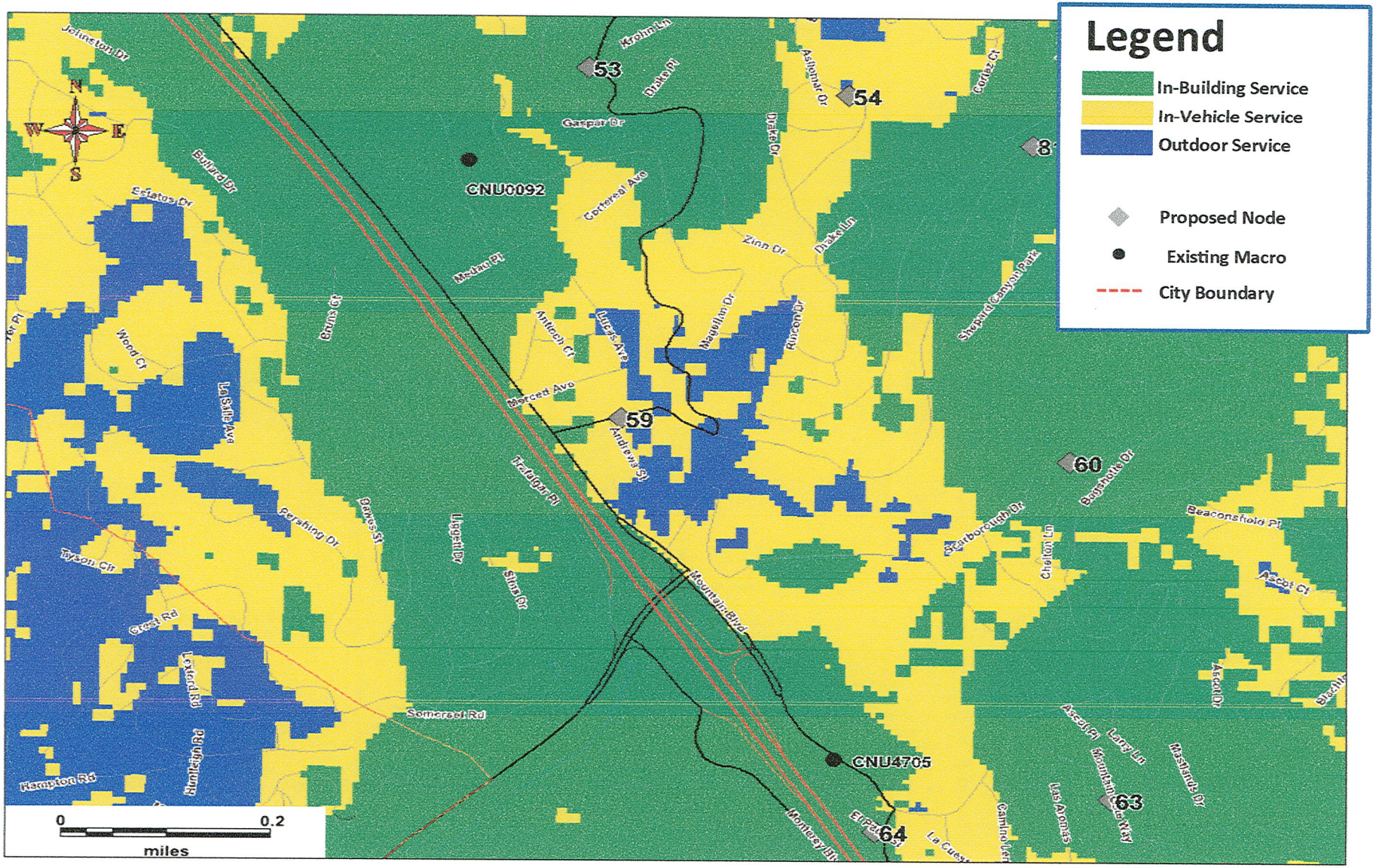
To rectify this significant gap in its service coverage, AT&T needs to locate a wireless facility in the immediate vicinity of the Property.

Oakland oDAS Zoning Propagation Map
Node 59

May 14th , 2015

Existing UMTS 850 Coverage

Exhibit 2



May 14th , 2015

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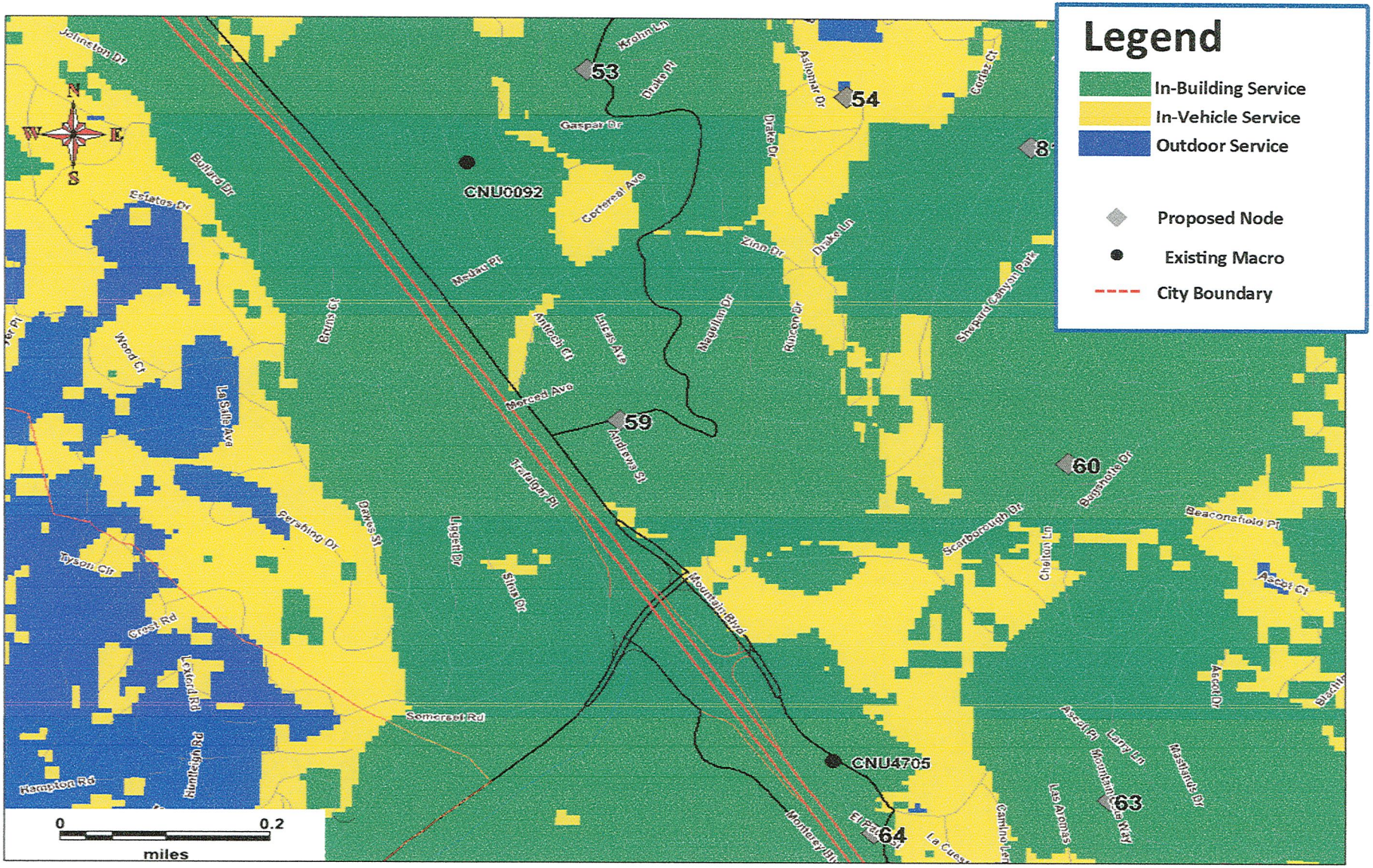
Proposed UMTS 850 Coverage (With Node 59)

Exhibit 3



May 14th , 2015

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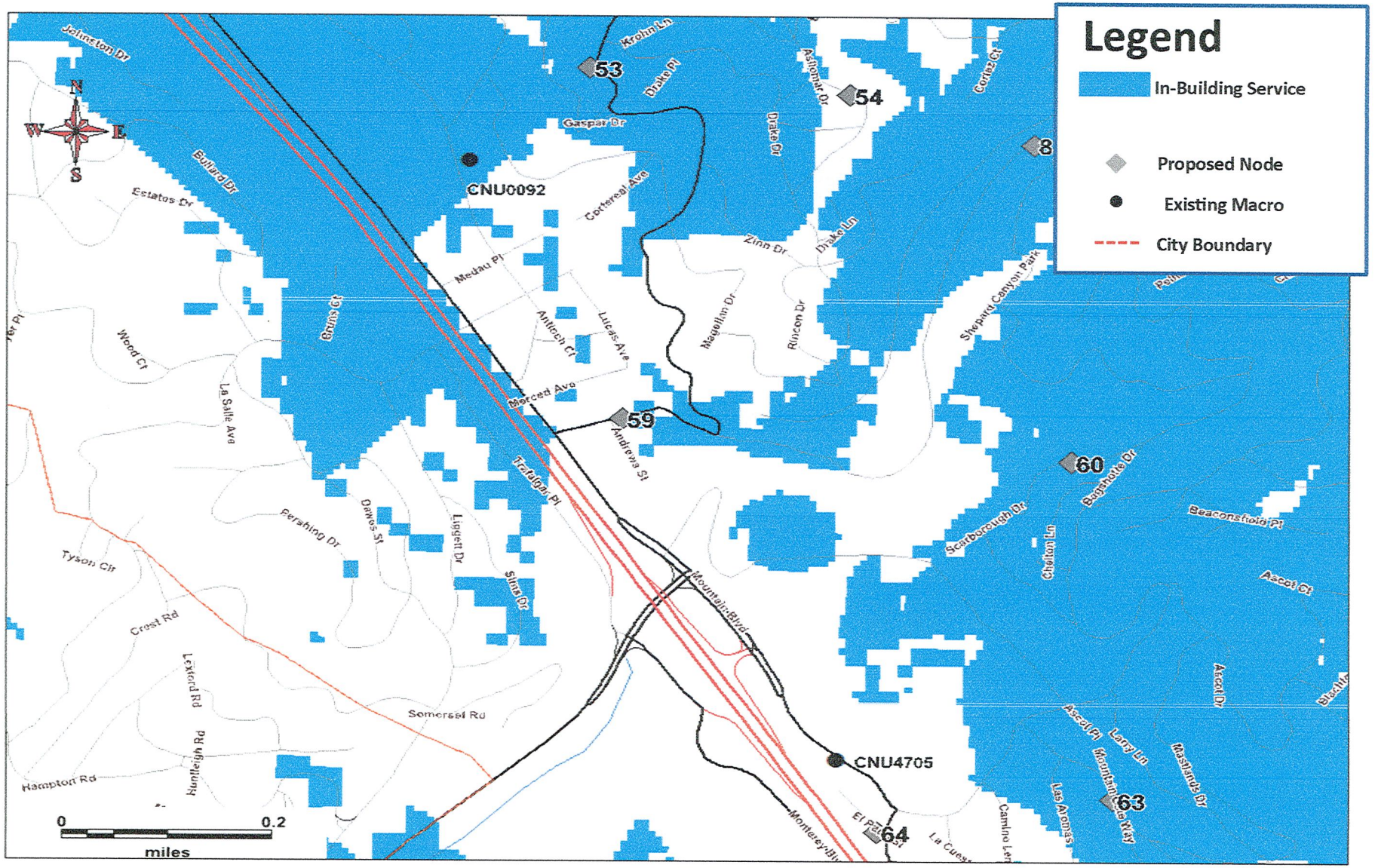
Existing LTE 700 Coverage

Exhibit 4

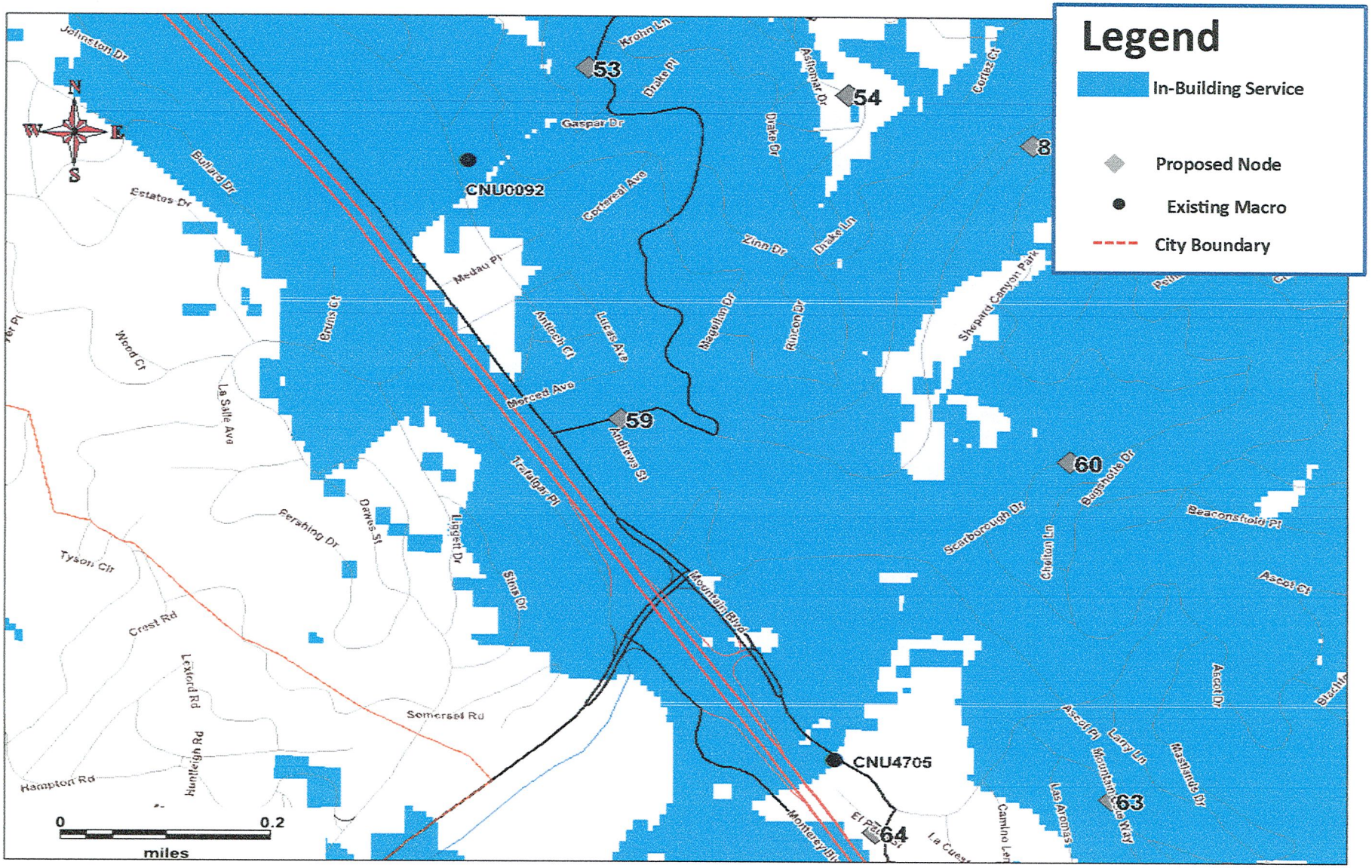


May 14th , 2015

at&t

Proposed LTE 700 Coverage (With Node 59)

Exhibit 5



May 14th , 2015

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