

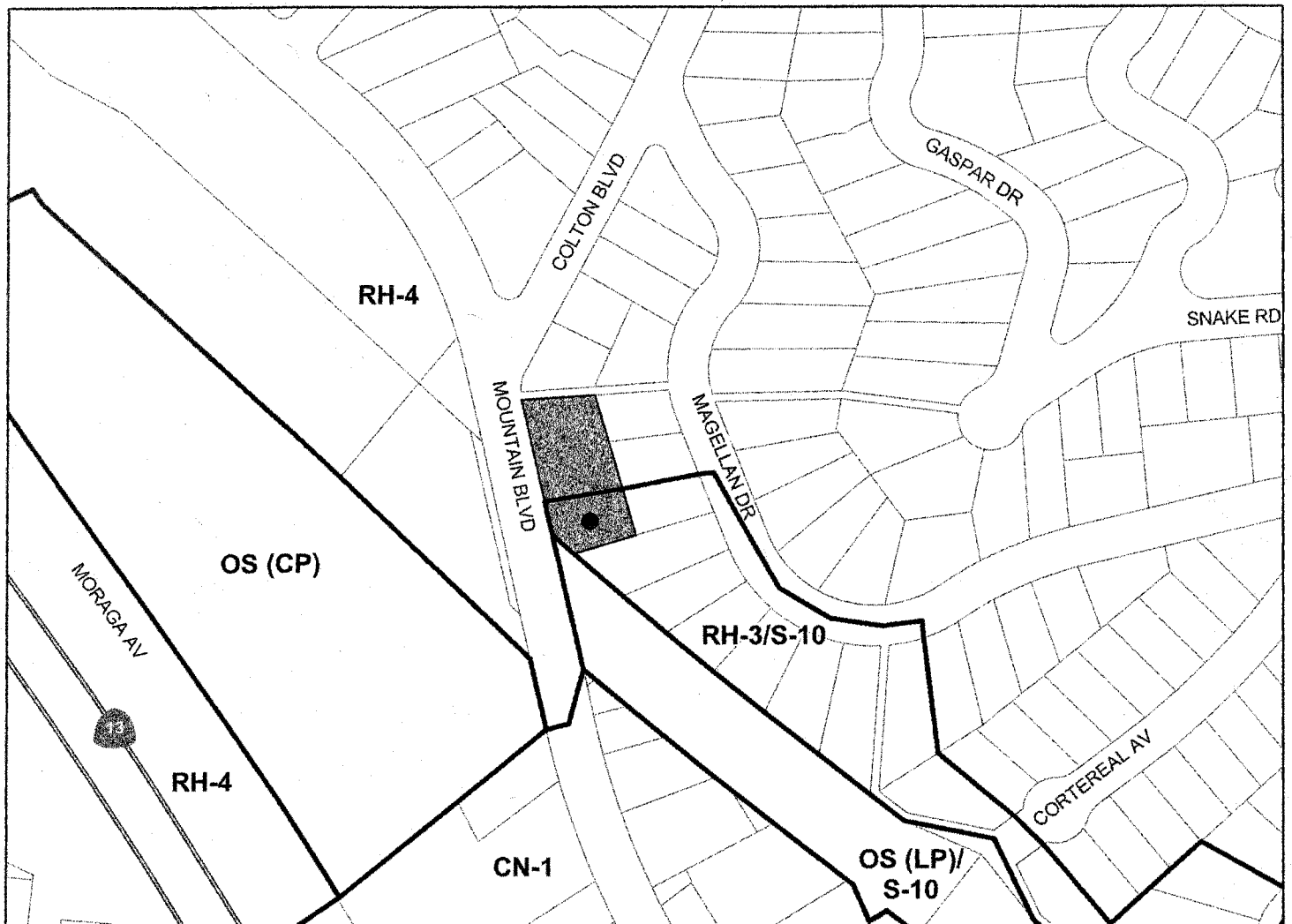
<b>Location:</b>	<b>1900 Mountain Blvd.</b>
<b>Assessor's Parcel Number:</b>	<b>048F-7365-038-00</b>
<b>Proposal:</b>	Request for a Major Conditional Use Permit and Design Review to co-locate a total of two (2) additional panel antennas and four (4) RRU's inside a new fully screened chimney and roof element and one new equipment cabinet located inside an existing ground level utility room to an existing unmanned mini telecommunications facility located on a mixed use building
<b>Contact Person/</b>	Jonathan Fong / Lyle Co.
<b>Phone Number:</b>	(916) 868-6673
<b>Owner:</b>	1900 Mountain Blvd. Homeowners Association
<b>Planning Permits Required:</b>	Major Conditional Use Permit to co-locate to an existing unmanned wireless telecommunication mini facility within a residential zone and Regular Design Review to add a total of 2 new antennas, 4 RRU's and one equipment cabinet. All new and existing antennas will be fully screened with appropriate RF screens matching the building.
<b>General Plan:</b>	Hillside Residential
<b>Zoning:</b>	RH-3 Hillside Residential 3 Zone/ S-10 Scenic Route Combining Zone
<b>Environmental</b>	Exempt, Section 15303 of the State CEQA Guidelines; new construction
<b>Determination:</b>	of small structures, 15301 existing facilities; 15183 Projects consistent with the General Plan or Zoning.
<b>Historic Status:</b>	Potentially Designated Historic Property (PDHP): Survey rating X
<b>Service Delivery District:</b>	3
<b>City Council District:</b>	IV
<b>Date Filed:</b>	12/02/10
<b>Staff Recommendation:</b>	Approve with the attached conditions
<b>Finality of Decision:</b>	<i>Appealable to City Council within 10 days</i>
<b>For Further Information:</b>	Contact case planner <b>Jose M. Herrera-Preza, Planner I</b> at (510) 238-3808 or <a href="mailto:jherrera@oaklandnet.com">jherrera@oaklandnet.com</a>

**SUMMARY**

This project would provide for the modification of an existing mini telecommunications facility consisting of co-locating two (2) additional panel antennas, 4 RRU's inside a new architecturally compatible RF screen on the roof and adding one equipment cabinet inside a dedicated utility room inside the building. The site currently hosts a total of 4 antennas and the project will result in a total of 6 antennas. All existing and proposed antennas will be fully concealed from public view via new RF screen enclosures, which will be painted and textured to match the building and will be vertically oriented to match the architectural style of the 1900 Mountain Blvd. mixed used building.

A Major Conditional Use Permit and Design Review is required for modifications to a Telecommunications Facility located within a residential zone. As detailed below, the project meets all of the required findings for approval. Therefore, staff recommends approval of the project subject to the attached conditions of approval.

# CITY OF OAKLAND PLANNING COMMISSION



0 125 250 500 750 1,000 Feet



Case File: CMD10-310  
Applicant: Jonathan Fong / Lyle Co.  
Address: 1900 Mountain Boulevard  
Zone: RH-3/S-10

**PROPERTY DESCRIPTION**

The subject property is a 17,539 sq/ft lot located along Mountain Boulevard. The site contains a 42' tall mixed use building which provides for commercial uses on the lower stories with condominiums above. The subject property is surrounded by similarly zoned lots with the pre-dominate pattern of development being low density residential buildings with Montclair Business district at the corner of Medau and Mountain Blvd. The site is located within a residential zone.

**PROJECT DESCRIPTION**

The proposal would involve co-locating two additional (2) panel antennas, four RRU's on the roof and adding one equipment cabinet inside an existing equipment room located inside the building. The proposed antennas will be mounted along the exterior sides of the building at two different locations. The new and existing antennas will be fully concealed inside new RF screens that will be incorporated into the building design by orienting the screens in a vertical manner consistent with the building architecture and will be painted and textured to match the exterior of the building. The new equipment cabinets will be located on the interior of the building inside a dedicated equipment area (**See Attachment A**).

**GENERAL PLAN ANALYSIS**

The subject property is located within the Hillside Residential General Plan designation. The Hillside Residential land use classification is intended to create, maintain, and enhance neighborhood residential areas that are characterized by detached, single unit structures on hillside lots. The proposed unmanned wireless telecommunication facility will not adversely affect or detract from the Hillside Residential characteristics of the neighborhood. All existing and proposed antennas will be mounted inside RF friendly screens that will be textured and painted to match the existing building thus minimizing visual impacts. General Plan Policy N9.9 states that the City encourages that new development respects the architectural integrity of a building's original style.

**ZONING ANALYSIS**

The subject property is zoned RH-4 Hillside Residential 4 Zone. The RH-4 zone is intended to create and enhance areas for single family dwellings on lots of 6,500 to 8,000 square feet and is typically appropriate in already developed areas of the Oakland Hills. The proposal would provide for the co-location of wireless antennas on a previously approved unmanned wireless telecommunication facility. The antennas would be mounted along two existing sectors along the building walls inside new RF friendly screens that will be painted and textured to match the mixed house building. A major conditional use permit is required since the project is located in a residential zone. Staff finds that the proposed application meets the City of Oakland Telecommunication regulations (see Findings for Approval).

**ENVIRONMENTAL DETERMINATION**

The California Environmental Quality Act (CEQA) Guidelines categorically exempts specific types of projects from environmental review. Section 15303 of the State CEQA Guidelines exempts project involving construction or location of new, small facilities or structures. The proposal to modify an existing mini telecommunications facility by co-locating two additional antennas to an existing unmanned telecommunications facility containing 4 existing and one equipment cabinets inside an existing equipment

area inside the building and meets this description: the project would constitute a minor addition only. The project is therefore exempt from Environmental Review.

## **KEY ISSUES AND IMPACTS**

In addition to ensuring this type of request meets required legal findings, proposed wireless telecommunications facilities must meet specific development standards, and site location and design preferences, and possesses a satisfactory radio frequency emissions report.

### **1. Conditional Use Permit**

Section 17.16.070 of the City of Oakland Planning Code requires a major conditional use permit to modify a Mini Telecommunication facility in the RH-4 Zone. The required findings for a major conditional use permit are listed and included in staff's evaluation as part of this report.

### **2. Project Site**

Section 17.128.110 of the City of Oakland Telecommunication Regulations requires that 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.
- D. Existing commercial or industrial structures in residential zones.
- E. Other non-residential uses in residential zones.
- F. Residential uses in non-residential zones.
- G. Residential uses in residential zones.

\*Facilities locating on an A, B or C ranked preference do not require a site alternatives analysis.

Since the proposed project involves the co-location of new antennas on an existing previously approved unmanned wireless facility, the proposed development meets the (A) co-located on an existing structure or facility with existing wireless antennas, therefore a site alternatives analysis is not required.

### **3. Project Design**

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

- A. Building or structure mounted antennas completely concealed from view.
- B. Building or structure mounted antennas set back from roof edge, not visible from public right-of way.
- C. Building or structure mounted antennas below roof line (facade mount, pole mount) visible from public right-of-way, painted to match existing structure.
- D. Building or structure mounted antennas above roof line visible from public right of-way.
- E. Monopoles.
- F. Towers.



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

The project meets design criteria (A) since all existing and proposed panel antennas will be mounted within RF friendly screens that will be painted and textured to match the building thus improving the existing facility and minimizing their impacts from the public view. Furthermore, to mitigate visual impacts the antennas will be mounted 40' above the pedestrian pathway on Mountain Blvd. The associated equipment cabinet would have no visual impact since the equipment cabinets would be fully screened and located inside the building in an existing equipment room and will be completely concealed from the public right of way or immediate neighbors.

#### **4. Project Radio Frequency Emissions Standards**

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

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

RF-EME emissions report, prepared by Herbert J. Stockinger, PE of EBI Consulting for AT&T indicates that the proposed project meets the radio frequency (RF) emissions standards as required by the regulatory agency. The report states that the proposed project will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not cause a significant impact on the environment. Additionally, staff recommends as a condition of approval that prior to the issuance of a final building permit, that 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 has been designed to significantly reduce the visual impacts of co-locating new panel antennas and 4 RRU's by fully concealing all antennas within RF friendly screens and screening all other associated equipment. Therefore, staff recommends approval of the requested Major Conditional Use Permit and Regular Design Review to allow for the co-location of panel antennas on 1900 Mountain Blvd.

- RECOMMENDATIONS:**
1. Affirm staff's environmental determination.
  2. Approve the Major Conditional Use Permit and Regular Design Review subject to the attached Findings and Conditions.

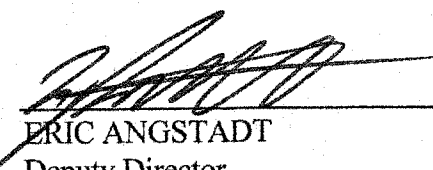
Prepared by:

  
\_\_\_\_\_  
Jose M. Herrera-Preza  
Planner I

Approved by:

  
\_\_\_\_\_  
SCOTT MILLER  
Zoning Manager

Approved for forwarding to the  
City Planning Commission:

  
\_\_\_\_\_  
ERIC ANGSTADT  
Deputy Director  
Community and Economic Development Agency

**ATTACHMENTS:**

- A. Project Plans & Photo Simulations

## **FINDINGS FOR APPROVAL**

This proposal meets all the required findings under Section 17.134.050, Conditional Use Permit Findings and Residential Design Review Criteria as set forth below and which are required to approve your application. Required findings are shown in bold type; reasons your proposal satisfies them are shown in normal type.

### **SECTION 17.134.050 – GENERAL CONDITIONAL USE PERMIT FINDINGS:**

- A. That the location, size, design, and operating characteristics of the proposed development will be compatible with, and will not adversely affect, the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage, and density; to the availability of civic facilities and utilities; to harmful effect, if any upon desirable neighborhood character; to the generation of traffic and the capacity of surrounding streets; and to any other relevant impact of the development.**

The proposal would provide for the co-location of two panel antennas, four RRU's at the same location, one new equipment cabinet inside a dedicated equipment room and new RF screens to fully conceal all antennas and associated equipment to an existing unmanned mini telecommunications facility. The new antennas will be wall mounted adjacent to existing antennas inside RF screens that will be painted and finished to match the existing mixed use building. The overall design would not adversely affect the operating characteristic of the existing building or the livability of the surrounding area. The facility will be unmanned and will not create additional vehicular or pedestrian traffic in the area.

- B. That the location, design, and site planning of the proposed development will provide a convenient and functional living, working, shopping, or civic environment, and will be as attractive as the nature of the use and its location and setting warrant.**

The proposed co-location of two additional antennas and one equipment cabinet will provide for a more functional living and commercial environment by co-locating on an existing mixed use facility in a residential zone. The proposed design of the unmanned telecommunications facility will provide a convenient and functional living and working environment while maintaining the attractive nature of the building and improving the existing facility through responsible screening techniques. Therefore, it would not affect the general quality and character of the neighborhood. The mini telecommunications facility will not detract from visual or functional operations of the existing building.

- C. That the proposed development will enhance the successful operation of the surrounding area in its basic community functions, or will provide an essential service to the community or region.**

The proposed development will enhance the successful operation of the surrounding area in its basic community function and will provide an essential service to the community or region. This will be achieved by improving the functional use of the site by providing a regional telecommunication facility for the community and will be available to police, fire, public safety organizations and the general public.

***FINDINGS FOR APPROVAL***

- D. That the proposal conforms to all applicable design review criteria set forth in the DESIGN REVIEW PROCEDURE of Chapter 17.136 of the Oakland Planning Code.**

The proposal conforms to all significant aspects of the design review criteria set forth in Chapter 17.136 of the Oakland Planning Code, as outlined below.

- E. That the proposal conforms in all significant respects with the Oakland General Plan and with any other applicable plan or development control map which has been adopted by the 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 mini telecommunication facility in the Hillside Residential General Plan designation will enhance and improve communication service for a mixture of civic, commercial and residential uses in the area.

**17.136.070A – DESIGN REVIEW CRITERIA :**

- A. The proposed design will create a building or set of buildings that are well related to the surrounding area in their scale, bulk, height, materials, and textures.**

The proposal would modify an existing mini telecommunications facility through the addition of two (2) panel antennas and four RRU's mounted along the existing rooftop inside new RF screens concealing all new and existing antennas and one equipment cabinet inside the existing building. The addition of the antennas to the existing building will not result in an increase in the building height and will be screened thru the use of RF screens which will be consistent with the buildings architectural design and furthermore the screens will match the existing building in their color, texture and finish materials. The new antennas will be mounted 40' above the Mountain Blvd. right of way and setback from the front property line building 20', with the new screens all antennas will not be visible from adjacent neighbors or public right of way. The exterior finish will match the building and the location and scale of the screens will be compatible with the existing facilities. Therefore, the proposal is consistent and well related to the surrounding area in scale, bulk, height, materials, and textures.

- B. The proposed design will protect, preserve, or enhance desirable neighborhood characteristics.**

The proposal protects and preserves the surrounding neighborhood context by co-locating additional wireless telecommunication antenna to an existing facility. All existing and proposed antennas will be concealed inside RF screens that will be painted and textured to match the building and be located 40' above any pedestrian pathway thus mitigating the impact on the public view and will not have any visual impact since antennas will be concealed. The new equipment cabinet would be inside an existing equipment area that is located inside the building and screened, thus will not visually affect adjoining properties.

- C. The proposed design will be sensitive to the topography and landscape.**

The subject property is on a developed lot in which topography is not an issue of concern. The location and scale of the proposal will maintain existing landscaping.

***FINDINGS FOR APPROVAL***

- D. If situated on a hill, the design and massing of the proposed building relates to the grade of the hill.**

This criteria is not applicable to this proposal.

- E. The proposed design conforms in all significant respects with the Oakland Comprehensive Plan and with any applicable district plan or development control map which has been adopted by the City Council.**

The proposal conforms with the City of Oakland Comprehensive General Plan meeting specific General Plan policies and the Supplemental Report and Recommendations on Revisions to the Citywide Telecommunications Regulations. The proposal will conform to performance standards for noise set forth in Section 17.143.020 (j) and (k) for decibels levels in residential areas for both day and nighttime use. The Project conforms to all macro-facility definitions set forth in Section 17.128.050 and meets all design review criteria to minimize all impacts throughout the neighborhood

**Design Review Criteria for Mini Facilities.** In addition to the design review criteria listed in Chapter 17.136, the following specific additional criteria must be met when design review is required before an application can be granted:

***FINDINGS FOR APPROVAL***

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

The existing and proposed antennas will be located inside a new RF friendly screen that will be painted, textured and incorporate finished details of the existing building.

**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 existing and proposed antennas will be roof mounted and screened by appropriate casing which will match all existing roof projections such as a chimney.

**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 will incorporate the existing and proposed antennas with a vertical design element that matches existing rooftop chimney structure, which will camouflage all antennas and associated equipment.

**4. Equipment cabinets shall be concealed from view or placed underground.**

The equipment cabinets are located inside the building along a second floor utility room completely concealed from public view.

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

The proposed antennas will be located along the roof where there is no public access and the equipment cabinets are located in a secure utility room inside the building where public access is prohibited.

**6. For antennas attached to the roof, maintain a 1:1 ratio (example: ten feet high antenna requires ten feet setback from facade) for equipment setback unless an alternative placement would reduce visual impact; treat or screen the antennas to match existing air conditioning units, stairs, elevator towers, or other background; avoid placing roof mounted antennas in direct line with significant view corridors.**

The proposed antennas will be setback from any building faced a minimum of 20' and be placed inside an RF screen made to match an elevator tower and chimney roof projections. The antennas are not in direct line with any protected view or view corridor.

**C. Conditional Use Permit Criteria for Mini Facilities.** In addition to the conditional use criteria listed in Chapter 17.134, the following specific additional criteria must be met before a conditional use permit can be granted:

**1. The project must meet the special design review criteria listed in subsection B of this section.**

The proposal meets all special design review criteria listed in subsection B, please see above.

**2. The proposed project must not disrupt the overall community character.**

The project is specifically designed to harmoniously incorporate responsible screening techniques and will not disrupt the overall community character.

***FINDINGS FOR APPROVAL***

**3. In the residential RH, RD, RM, RU-1, or RU-2 zones, and in HBX zones, the project must not have any visual impact. (Ord. 12272 § 4 (part), 2000; Ord. 11904 § 5.01 (part), 1996: prior planning code § 8506)**

The proposal is specifically designed to not have any visual impacts to the overall character of the building. All existing and proposed antennas will be completely concealed inside RF friendly screened manufactured to match the building's existing rooftop projections.

***FINDINGS FOR APPROVAL***

## **Conditions of Approval**

### **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, **CMD10310**, and the plans dated **May 4<sup>th</sup>, 2011** and submitted on **May 4<sup>th</sup>, 2011** 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. This Approval includes: **To co-locate a total of two (2) additional panel antenna and four (4) RRU's inside a new fully screened chimney and roof element and one new equipment cabinet located inside an existing ground level utility room to an existing unmanned mini telecommunications facility located on 1900 Mountain Blvd., under Oakland Planning Code 17.128**

#### **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

**CONDITIONS OF APPROVAL**



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****Ongoing**

- a) To the maximum extent permitted by law, the applicant shall defend (with counsel 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 its respective agents, officers, and employees (hereafter collectively called City) from any liability, damages, claim, judgment, loss (direct or indirect) action, causes of action, or proceeding (including legal costs, attorneys' fees, expert witness or consultant fees, City Attorney or staff time, expenses or costs) (collectively called "Action") against the City to attack, set aside, void or annul, (1) an approval by the City relating to a development-related application or subdivision or (2) implementation of an approved development-related project. The City may elect, in its sole discretion, to participate in the defense of said Action and the applicant shall reimburse the City for its reasonable legal costs and attorneys' fees.
- b) Within ten (10) calendar days of the filing of any Action as specified in subsection A above, the applicant shall execute a Letter of Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations. These obligations and the Letter of Agreement shall survive termination, extinguishment or invalidation of the approval. Failure to timely execute the Letter of Agreement does not relieve the applicant of any of the obligations contained in this condition or other requirements or Conditions of Approval that may be imposed by the City.

***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. Operational Noise-General**

***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.

**PROJECT SPECIFIC CONDITIONS:**

**12. Radio Frequency Emissions**

***Prior to the final building permit sign off***

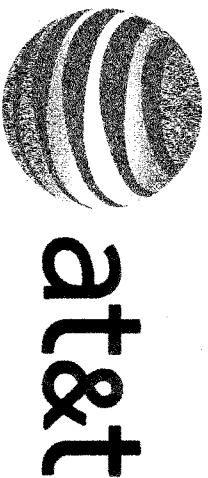
The applicant shall submit a certified RF emissions report stating the facility is operating within the acceptable standards established by the regulatory Federal Communications Commission.

**13. Sinking Fund for Facility Removal or Abandonment.**

***Prior to issuance of a building permit***

The applicant shall provide proof of the establishment of a sinking fund to cover the cost of removing the facility if it is abandoned within a prescribed period. The word "abandoned" shall mean a facility that has not been operational for a six (6) month period, except where non-operation is the result of maintenance of renovation activity pursuant to valid City permits. The sinking fund shall be established to cover a two year period, at a financial institution approved by the City's Office of Budget and Finance. The sinking fund payment shall be adequate to determined by the office of Budget and Finance and shall be adequate to defray expenses associated with the removal of the telecommunication facility.

## ATTACHMENT A



**CNU0092**

LTE SITE: CCL00092

FA#: 10087939 USID: 12731

**HWY 13**

1900 MOUNTAIN BLVD  
OAKLAND, CA 94611



## CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS APPLICABLE TO THE PROJECT:

1. 2010 CALIFORNIA ADMINISTRATIVE CODE
2. 2010 CALIFORNIA BUILDING CODE
3. 2010 CALIFORNIA ELECTRICAL CODE
4. 2010 CALIFORNIA FIRE CODE
5. 2010 CALIFORNIA PLUMBING CODE
6. CITY/COUNTY ORDINANCES
7. MANUFACTURER'S REQUIREMENTS
8. FACILITY'S REQUIREMENTS AND ANY FOR THE WORK

AGREEMENT WITH CALIFORNIA ADMINISTRATIVE STATE

## PROJECT DESCRIPTION

THIS IS AN UNMANNED TELECOMMUNICATIONS FACILITY FOR FIBER WIRELESS CONSISTING OF THE INSTALLATION OF THE FOLLOWING:

1. NEW ONE (1) RADIUM MAIN UNIT MOUNTED TO EXISTING RACK INSIDE EXISTING EQUIPMENT ROOM INSIDE EXISTING BUILDING.
2. NEW TWO (2) LTE ANTENNAS ON EXISTING BUILDING.
3. NEW FOUR (4) RACKS MOUNTED ON BUILDING.
4. NEW ONE (1) FIBER CONDUIT AND TWO (2) POWER CONDUITS FROM MAIN UNIT TO FIBER/POWER BOX.
5. NEW FOUR (4) RACKS PER ANTENNA CONFIGURATION.
6. NEW ONE (1) FIBER/POWER BOX MOUNTED ON EXISTING BUILDING.
7. NEW TWO (2) STAKE SUPPRESSION RACK MOUNTED ON EXISTING BUILDING.

## DRIVING DIRECTIONS

FROM/TO: OFFICE - PLEASANTON, CA

1. LEAVE OFFICE ON ROAD 101 SOUTH RAMP RD.
2. TURN LEFT ON ROAD 101 SOUTH RAMP RD.
3. TAKE RAMP RIGHT FOR I-580 WEST/PLEASANTON TO BREED FRY.
4. KEEP RIGHT TO STAY ON I-580 WEST/PLEASANTON TO BREED FRY.
5. TAKE RAMP RIGHT FOR I-580 WEST/PLEASANTON TO BREED FRY.
6. KEEP STRAIGHT AND FOLLOW SIGN FOR "HERRING, ST/MODICA AVE."
7. TURN RIGHT ON MODICA AVE.
8. ARRIVE AT 1500 MOUNTAIN BLVD, OAKLAND, CA 94611

## GENERAL CONTRACTOR NOTES

DO NOT SCALE DRAWING.

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

## SHEET INDEX

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET, SITE INFORMATION AND VICINITY MAP	1
T-2	GENERAL NOTES, LEGEND AND ABBREVIATIONS	1
A-1	SITE PLAN	1
A-2	ROOF PLAN	1
A-3	ANTENNA PLANS	1
A-4	ELEVATIONS	1
A-5	EQUIPMENT AND CONSTRUCTION DETAILS	1

## APPROVALS

LANDLORD: \_\_\_\_\_

CONSTRUCTION MANAGER: \_\_\_\_\_

RF ENGINEER: \_\_\_\_\_

SITE ACQUISITION MANAGER: \_\_\_\_\_

ZONING MANAGER: \_\_\_\_\_

UTILITY COORDINATOR: \_\_\_\_\_

PROGRAM REGIONAL MANAGER: \_\_\_\_\_

NETWORK OPERATIONS MANAGER: \_\_\_\_\_

## PROJECT TEAM

**ENGINEER:**  
FDC CORPORATION  
1500 MOUNTAIN BLVD  
OAKLAND, CA 94611  
ENTER OF RECORD: SCOTT A. SHUL, P.E.  
OFFICE: (920) 501-5888  
MOBILE: (310) 365-9541  
EMAIL: paul@fcdcorp.net

**SITE ACQUISITION MANAGER:**  
ERIKSON  
1500 MOUNTAIN BLVD  
OAKLAND, CA 94611  
CONTACT: SCOTT A. SHUL  
OFFICE: (920) 501-5888  
MOBILE: (310) 365-9541  
EMAIL: paul@fcdcorp.net

**ZONING MANAGER:**  
LTC COMPANY  
1500 MOUNTAIN BLVD  
OAKLAND, CA 94611  
CONTACT: SCOTT A. SHUL  
OFFICE: (920) 501-5888  
MOBILE: (310) 365-9541  
EMAIL: paul@fcdcorp.net

**CONSTRUCTION MANAGER:**  
ERIKSON  
1500 MOUNTAIN BLVD  
OAKLAND, CA 94611  
CONTACT: SCOTT A. SHUL  
OFFICE: (920) 501-5888  
MOBILE: (310) 365-9541  
EMAIL: paul@fcdcorp.net

## PROJECT INFORMATION

**SITE ADDRESS:**  
1900 MOUNTAIN BLVD  
OAKLAND, CA 94611

**APN:**  
048-736-03-00

**PERMIT NUMBER:**  
EUPR-10-00

**DATE:**  
04/27/10

**PROJECT AREA:**  
37°47'49" N (740 83)  
122°15'40" W (740 83)  
37°47'49" N (740 83)  
122°15'40" W (740 83)  
37°47'49" N (740 83)  
122°15'40" W (740 83)

**HEIGHT OF STRUCTURE:**  
3-42'-0" MAX.

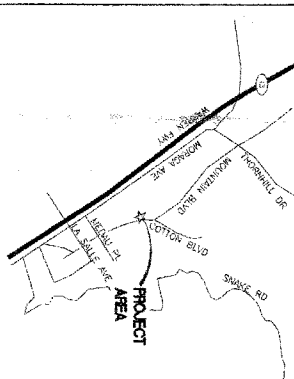
**ZONING:**  
230/750

**UTILITY COORDINATOR:**  
CITY OF OAKLAND

**TELEPHONE:**  
A&T

**POWER:**  
P&G

## VICINITY MAP



**CNU0092**

LTE SITE: CCL00092

FA#: 10087939 USID: 12731

**HWY 13**

1900 MOUNTAIN BLVD

OAKLAND, CA 94611

ISSUED FOR: \_\_\_\_\_

06/02/11

100% CONSTRUCTION

DRAWING

REV: DATE: DESCRIPTION: BY:

1 06/27/10 100% CONSTRUCTION JCB

2 10/20/10 DRAWING JCB

3 05/02/11 100% ANTENNA TO

4 05/02/11 100% ANTENNA TO

5 05/02/11 100% ANTENNA TO

6 05/02/11 100% ANTENNA TO

7 05/02/11 100% ANTENNA TO

8 05/02/11 100% ANTENNA TO

9 05/02/11 100% ANTENNA TO

10 05/02/11 100% ANTENNA TO

11 05/02/11 100% ANTENNA TO

12 05/02/11 100% ANTENNA TO

13 05/02/11 100% ANTENNA TO

14 05/02/11 100% ANTENNA TO

15 05/02/11 100% ANTENNA TO

16 05/02/11 100% ANTENNA TO

17 05/02/11 100% ANTENNA TO

18 05/02/11 100% ANTENNA TO

19 05/02/11 100% ANTENNA TO

20 05/02/11 100% ANTENNA TO

21 05/02/11 100% ANTENNA TO

22 05/02/11 100% ANTENNA TO

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24 05/02/11 100% ANTENNA TO

25 05/02/11 100% ANTENNA TO

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27 05/02/11 100% ANTENNA TO

28 05/02/11 100% ANTENNA TO

29 05/02/11 100% ANTENNA TO

30 05/02/11 100% ANTENNA TO

31 05/02/11 100% ANTENNA TO

32 05/02/11 100% ANTENNA TO

33 05/02/11 100% ANTENNA TO

34 05/02/11 100% ANTENNA TO

35 05/02/11 100% ANTENNA TO

36 05/02/11 100% ANTENNA TO

37 05/02/11 100% ANTENNA TO

38 05/02/11 100% ANTENNA TO

39 05/02/11 100% ANTENNA TO















































40 05/02/11 100% ANTENNA TO

41 05/02/11 100% ANTENNA TO

42 05/02/11 100% ANTENNA TO

43 05/02/11 100% ANTENNA TO

**T-1**

	NEW ANTENNA
	EXISTING ANTENNA
	GROUND ROD
	GROUND BUS BAR
	MECHANICAL GROUNDING
	CABLE TIE
	GROUND ACCESS WELL
	ELECTRIC BOX
	TELEPHONE BOX
	LIGHT POLE
	FENCE MONUMENT
	SPOT ELEVATION
	SET POINT
	REVISION
	GRID REFERENCE
	DETAIL REFERENCE
	ELEVATION REFERENCE
	SECTION REFERENCE
	GROUT OR PLASTER
	REINFORCING BAR
	CAST-IN-PLACE CONCRETE
	FORMWORK
	FORMWORK
	FORMWORK
	FORMWORK
	FORMWORK
	FORMWORK
	FORMWORK
	FORMWORK
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	FORMWORK

[illegible]

## ABBREVIATIONS

**GENERAL NOTES FOR EXISTING AIRCRAFT CELL SITES:**

1. PRIOR TO THE STARTUP OF ANY OF THE ABOVE SUBCONTRACTORS SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONSTRUCTION, AND THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING CONSTRUCTION. DRAWINGS, AND ANY SPECIFIC WORK SHALL BE SUBJECT TO THE ATTENTION OF THE CONTRACTOR.
2. SUBCONTRACTORS SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MAY BE VARYING. SUBCONTRACTORS SHALL SIGNIFY THE DIMENSIONS OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
3. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTORS SHALL NOT INTERRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH THE OPERATORS. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN THE EVENING HOURS AFTER 1800 HOURS.
4. THE EXISTING EQUIPMENT IS IN FULL COMPLIANCE WITH ALL SAFETY REGULATIONS AND SHALL HAVE ALL SAFETY DEVICES IN PLACE. THE CONTRACTOR SHOULD BE SUBJECTING PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL OR EXPOSURE MONITORS ARE ADVISED TO BE WORN TO AID IN ALL DANGEROUS EXPOSURE LEVELS.
5. SUBCONTRACTORS SHALL DETERMINE ACTUAL ROOFING OF CONCRETE, POWER AND IT CABLES, BRACKETS, CABLES, AS WELL AS THE EXISTING AIRCRAFT CELL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING CONSTRUCTION. ALSO, WORK SHALL NOT BE PERFORMED WITHOUT THE NECESSARY SUPERVISIONS SHALL CORRECT THE ACTUAL FINDING WITH THE CONTRACTOR.
6. OTHER ITEMS REMOVED FROM THE EXISTING FACILITY: ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNERS AND DISPOSED PROPERLY ACCORDING.

LEGEND	1	GENERAL NOTES FOR EXISTING AWS CELL SITES
--------	---	---

### 3 GENERAL CONSTRUCTION NOTES

4


**CND00932**  
LTE SITE: CQL00932  
FAX: 10087939 USID: 12731  
**HWY 13**  
1906 MOUNTAIN BLVD  
OAKLAND, CA 94611

05/02/11

ISSUED FOR: 100% CONSTRUCTION DRAWING

0	10/20/10	100% COMPLETION DRAWING
1	05/02/11	ADD ALTERNATIVE SCREENING

**PDC CORPORATION**  
**pc**  
10022 CONYANON BLVD.  
LIVERMORE, CA 94550  
TEL: (925) 506-1000


**LYLE**  
 3140 GOLD CAMP DR, SUITE 30  
 PACHO CORONA, CA 91570  
 DRAWN BY: \_\_\_\_\_ CHK: \_\_\_\_\_ AP: \_\_\_\_\_

JD	PP	SA
----	----	----

LICENSER: \_\_\_\_\_

SHEET TIME: \_\_\_\_\_

**GENERAL NOTES,  
LEGEND AND  
ABBREVIATIONS**

# 5





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

NOTE:  
1. ANTENNA CONFIGURATIONS BASED ON NOTES  
SECTION 8.2 DATED 09-10-2010  
2. NEW ANTENNA DIMENSIONS: 50" x 12" x 4"

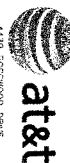
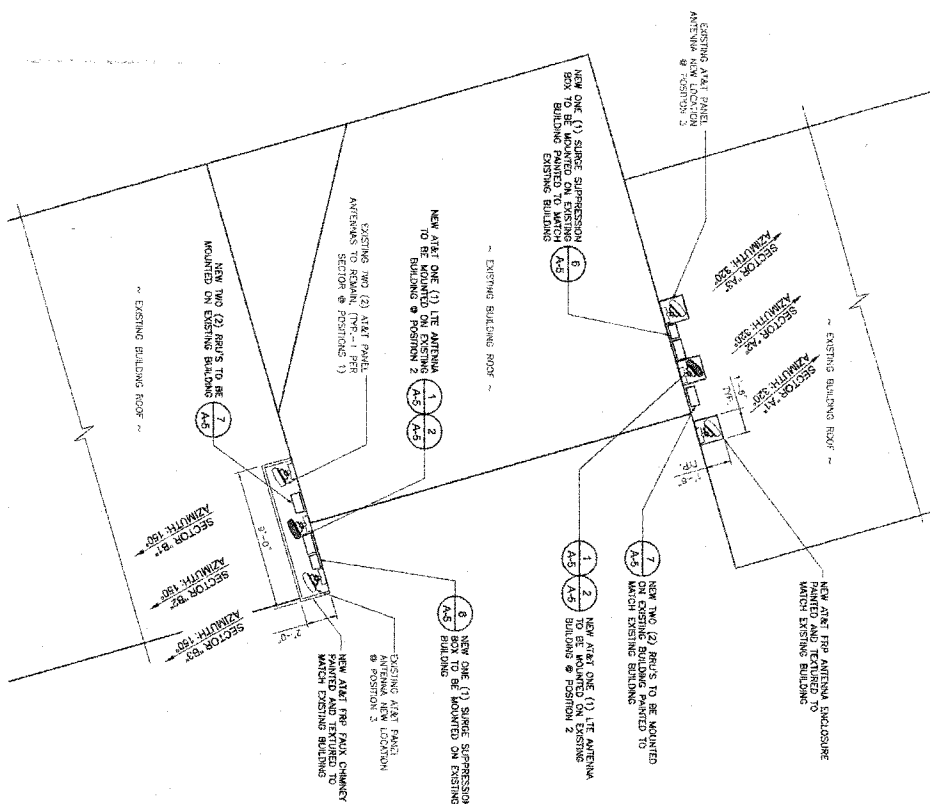
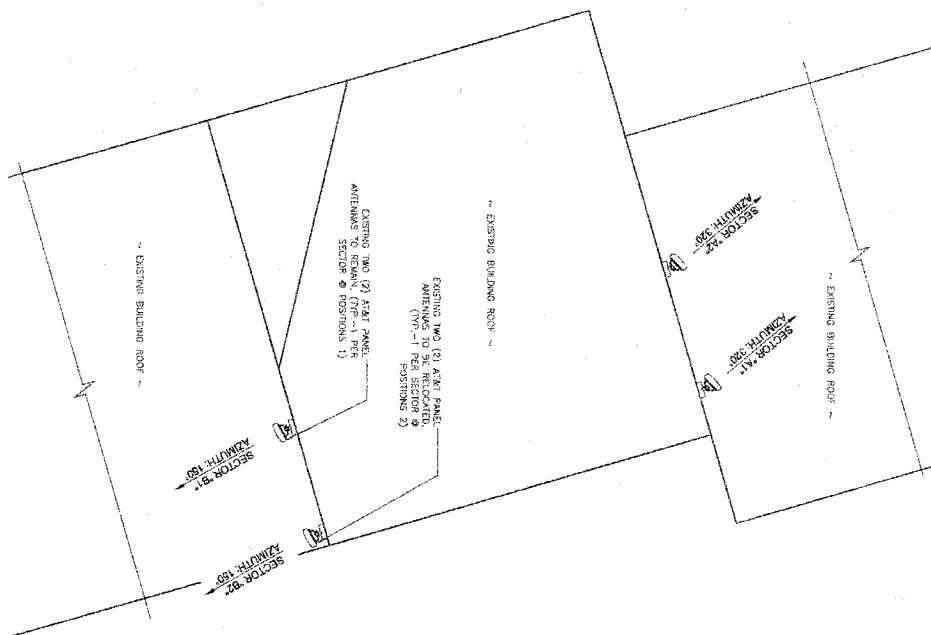
# EXISTING ANTENNA PLAN

SCALE  
1/4" = 1'-0"

# NEW ANTENNA PLAN

SCALE  
1/4" = 1'-0"

2



PROJECT INFORMATION:  
GNI00092  
LTE SITE: CCL00092  
FAP: 100892/USP: 12781  
HWY 13  
1600 MOUNTAIN BLVD  
OAKLAND, CA 94612

CURRENT ISSUE DATE:  
05/02/11

ISSUED FOR:  
100% CONSTRUCTION  
DRAWING

REV.	DATE	DESCRIPTION	BY
1	05/02/11	ADD ANTENNA ISOLATION	TS
0	10/26/10	DRAWING PREPARED FOR CONSTRUCTION	JCC
A	05/27/10	100% CONSTRUCTION DRAWING	JCC

PLANS PREPARED BY:



100% CONSTRUCTION  
DRAWING



CONSULTANT:  
3140 26th AVE. SUITE 20  
RANCHO CORDON, CA 95070  
TEL: (925) 501-3888

LICENSER:

DESIGN BY:

CHECK BY:

DATE:

SCALE:

SHEET NUMBER:

ANTENNA PLANS

A-3

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

1. NEW 42" CABINET TO BE CONNECTED TO EXISTING DC POWER, FIELD CABINET & GROUND BAR.
2. NEW 42" FIBER RUN TO BE MOUNTED ALONG S/S OF EXISTING COAX CABLE RUN. (GENERAL CONTRACTOR TO VERIFY EXACT ROUTE PRIOR TO CONSTRUCTION)



1. In the case of a family, the following information should be provided:

ISSUED FOR: MEMBERSHIP INFORMATION: ADDRESS FOR: [www.aaup.org](http://www.aaup.org) TEL: 800-441-2345 FAX: 800-441-2345

**100% CONSTRUCTION  
DRAWING**

A	08/27/10	90% CONSTRUCTION DRAWING	JD
0	10/20/10	100% CONSTRUCTION DRAWING	JCC
1	08/02/11	ADD ANTENNA SCREENING	FG

EXPLANS PREPARED BY: \_\_\_\_\_

POLY CORP.

1052 CONNOR BLVD.  
LIVERMORE, CA 94550  
TEL: (925) 816-5668

-CONSULTANT: who is not currently working on the project.



F  
E  
M

RANCHO CORDOVA, CA 95670

22

**LICENSER:** STANDARD & POOR'S RATING SERVICE, INC.

1000

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10

SHEET TITLE: \_\_\_\_\_

Age Group	Percentage of Respondents
18-29	~85
30-49	~90
50-69	~95
70+	~95

## ELEVATIONS

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[illegible]

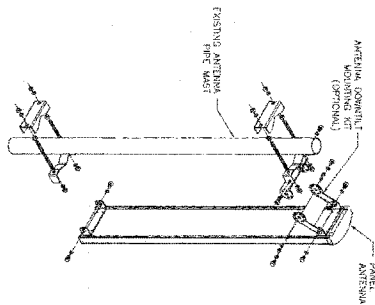
1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.



**THE**

and there will be no need to change the way we do things.



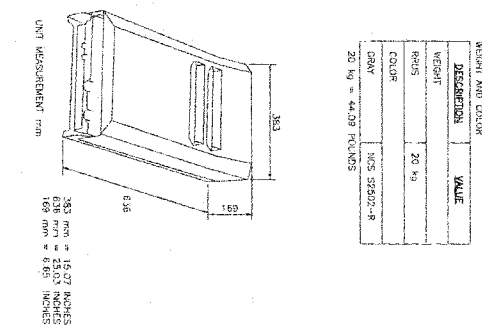
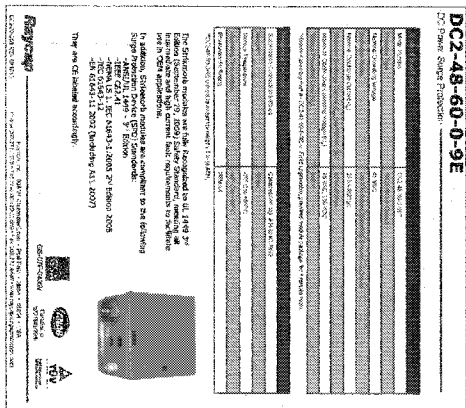
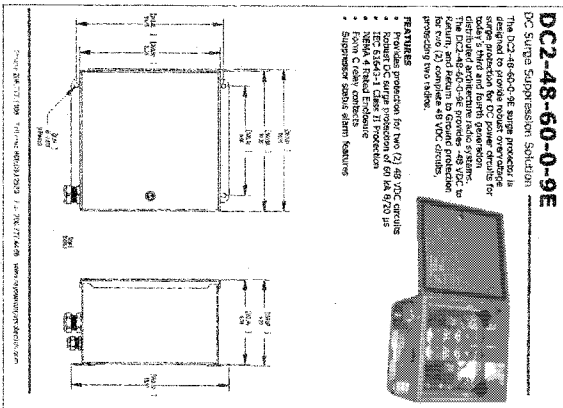
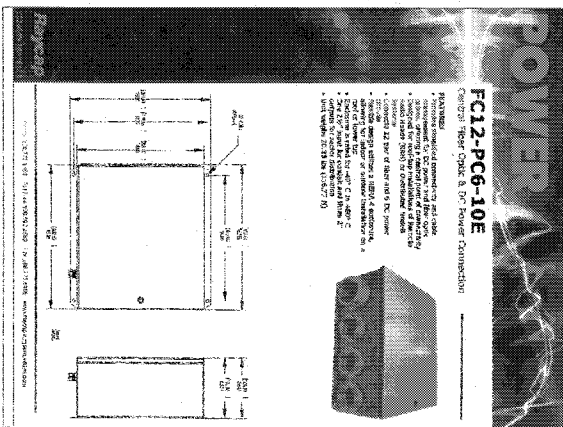
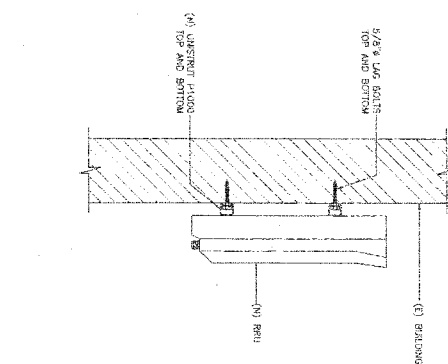
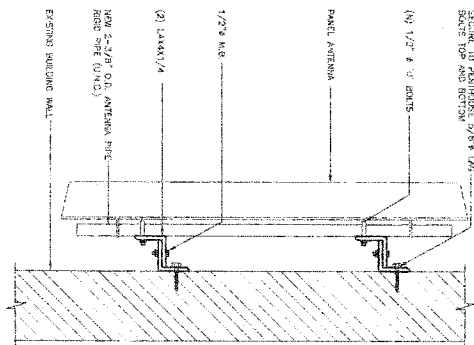


ANTENNA MOUNTING DETAIL

1 ANTENNA MOUNTING DETAIL

2 RRU MOUNTING DETAIL

3



FC12-PC6-10-E SPECS

5 DC2-48-60-0-9E SPECS

6 RRU SPECS

7



PROJECT INFORMATION:  
 PROJECT NAME: 1600 MOUNTAIN BLVD  
 FLEXINGTON, CA 94038

CNU0092  
 LITE SITE: CCL00962  
 PAF: 108789 USD: 12781  
 HWY 13  
 1600 MOUNTAIN BLVD  
 OAKLAND, CA 94611

CURRENT ISSUE DATE:  
 05/02/11

ISSUED FOR:  
 100% CONSTRUCTION  
 DRAWING

REV.	DATE	DESCRIPTION	BY
A	08/22/10	100% CONSTRUCTION	JD
B	10/26/10	100% CONSTRUCTION	JD
C	05/02/11	ADD ANTENNA	JD
D		REVISION	

PLANS PREPARED BY:  
 PDS CORPORATION



CONSULTANT:  
 1600 CONCOMEN BLVD  
 TEL: 925.934.4588



3140 GOLD CAMP DR, SUITE 30  
 RANCHO CORDOVA, CA 95830

DRAWN BY: CHK: APP:  
 JD PP SCS

LICENSER:

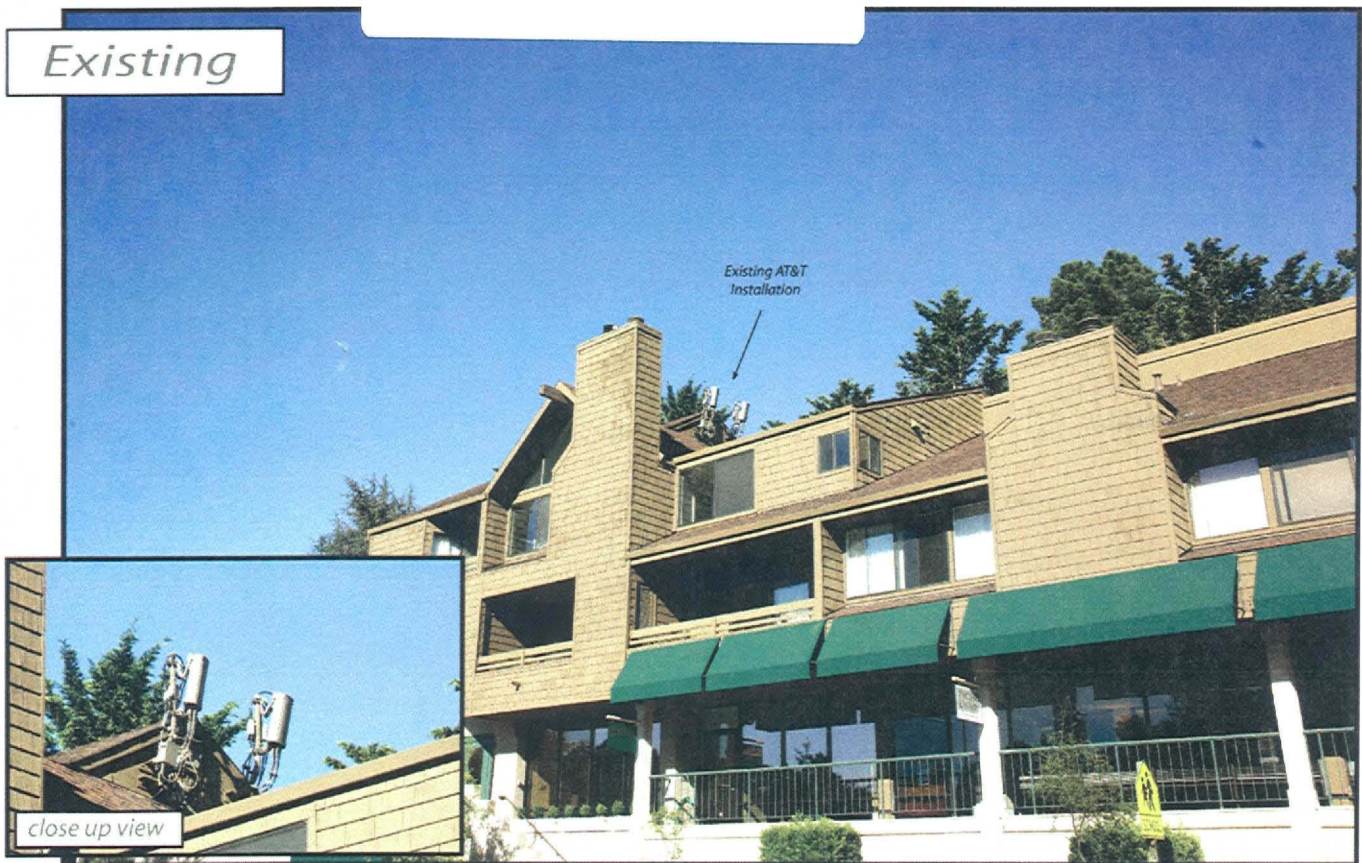
SHEET TITLE:  
 EQUIPMENT AND  
 CONSTRUCTION  
 DETAILS

SHEET NUMBER:  
 A-5



# ATTACHMENT A

Existing



Proposed



view from Mountain Blvd looking northeast at site

AdvanceSim   
Photo Simulation Solutions  
Contact (925) 202-8507

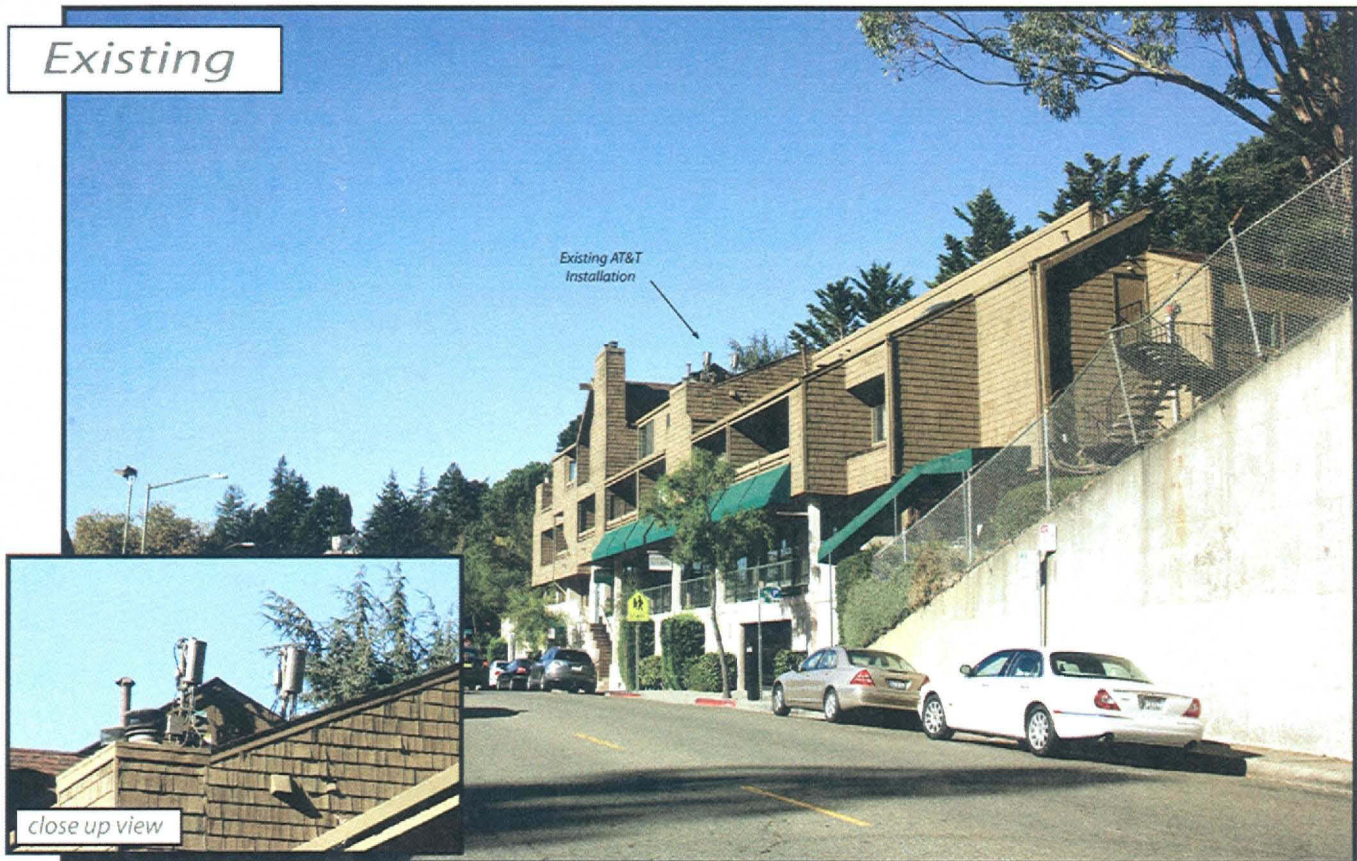


AT&T Wireless

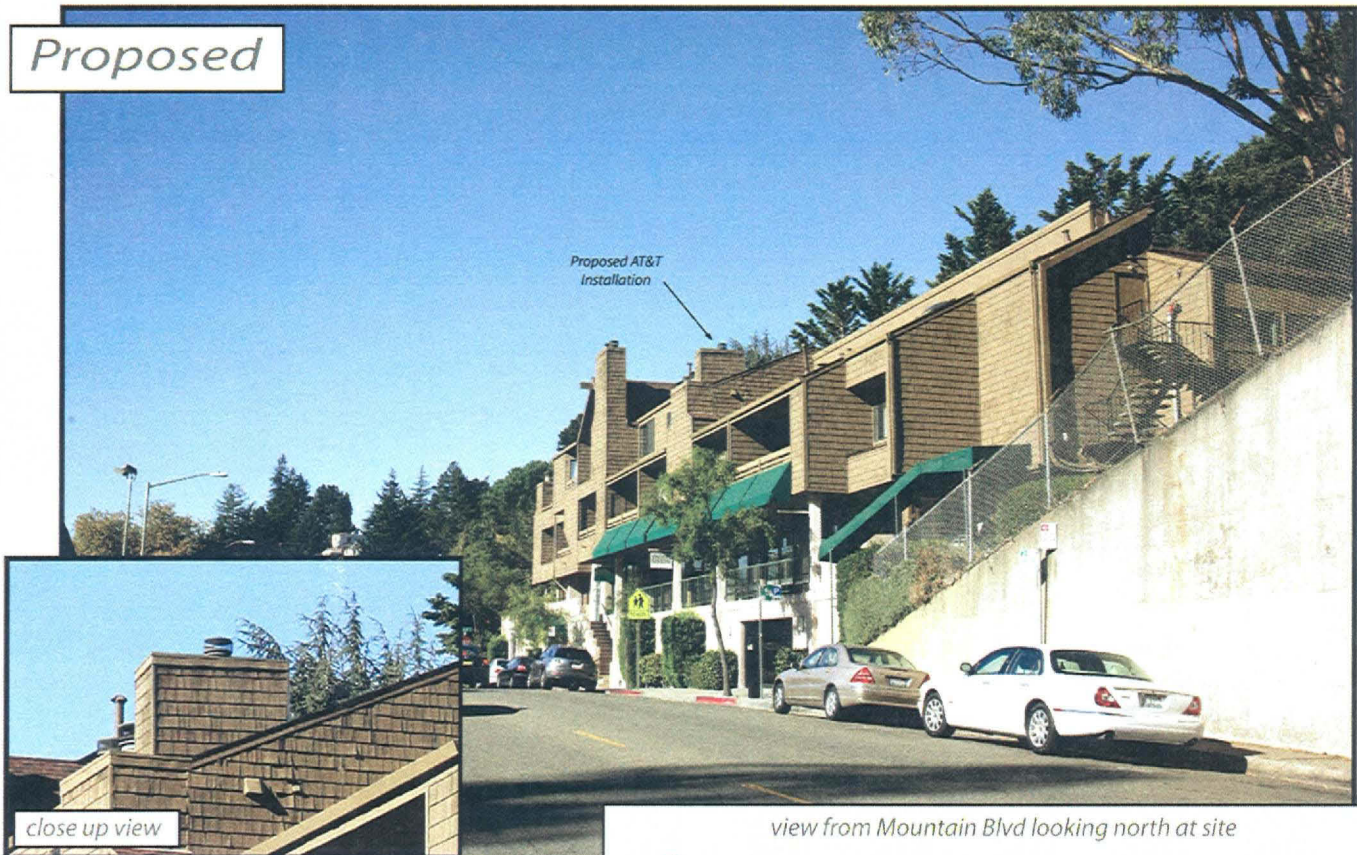
CNU0092 Hwy 13  
1900 Mountain Blvd, Oakland, CA



## Existing



## Proposed



view from Mountain Blvd looking north at site



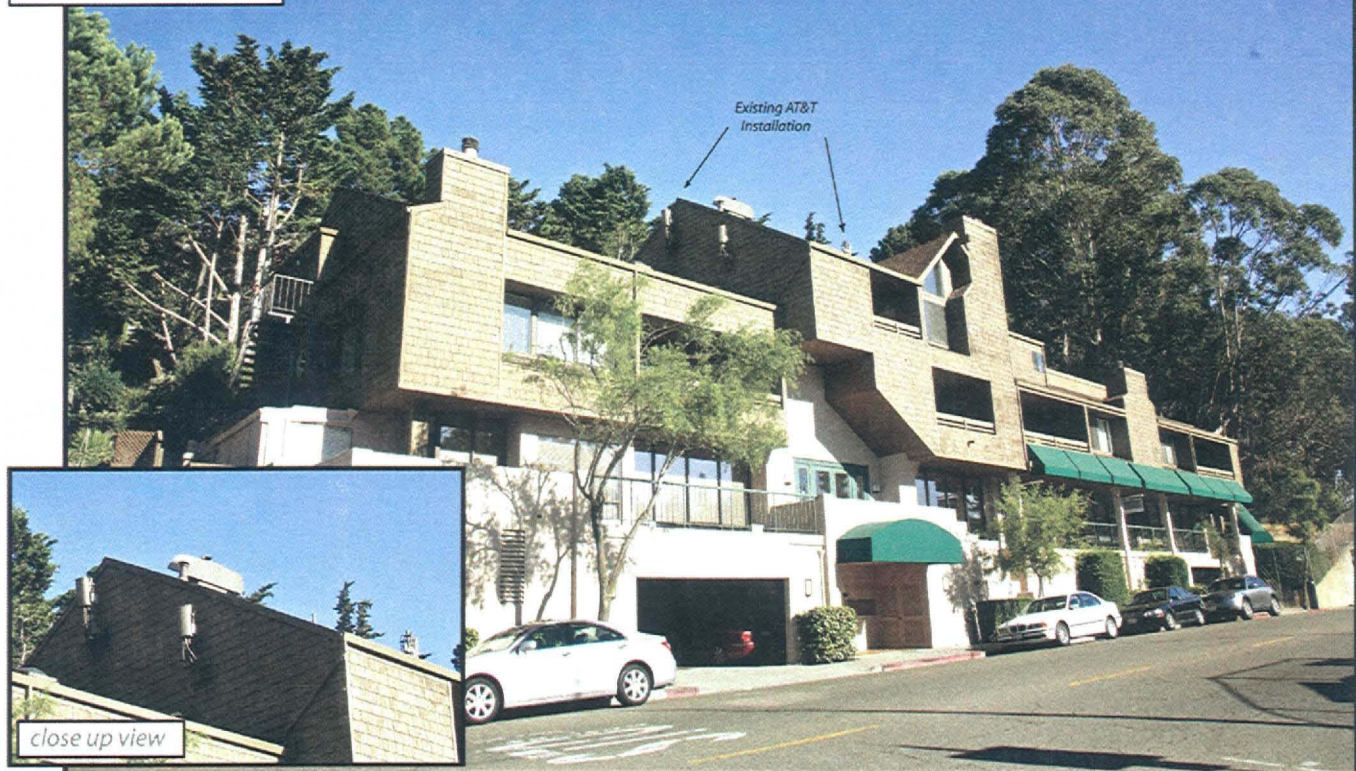
**AT&T Wireless**

CNU0092 Hwy 13  
1900 Mountain Blvd, Oakland, CA

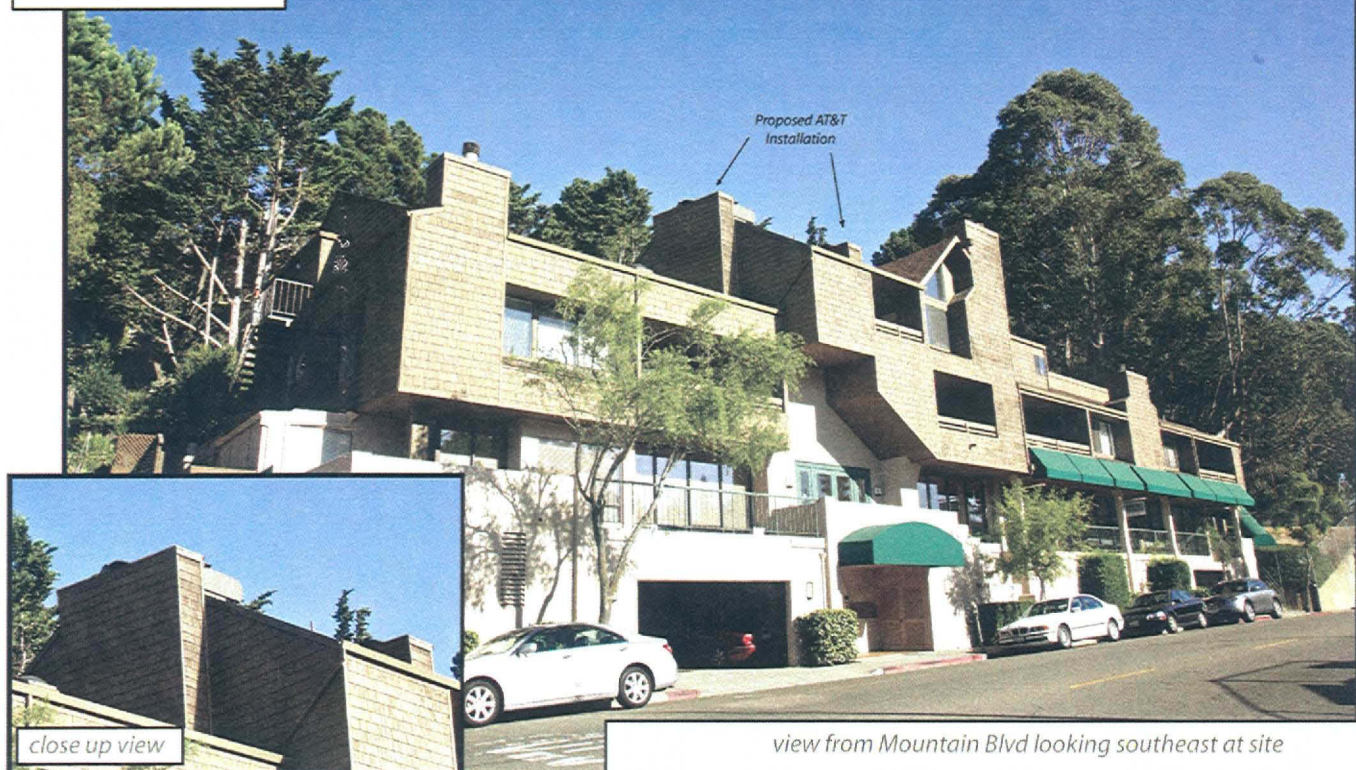
**AdvanceSim**  
Photo Simulation Solutions  
Contact (925) 202-8507



## Existing



## Proposed



view from Mountain Blvd looking southeast at site



CNU0092 Hwy 13  
1900 Mountain Blvd, Oakland, CA

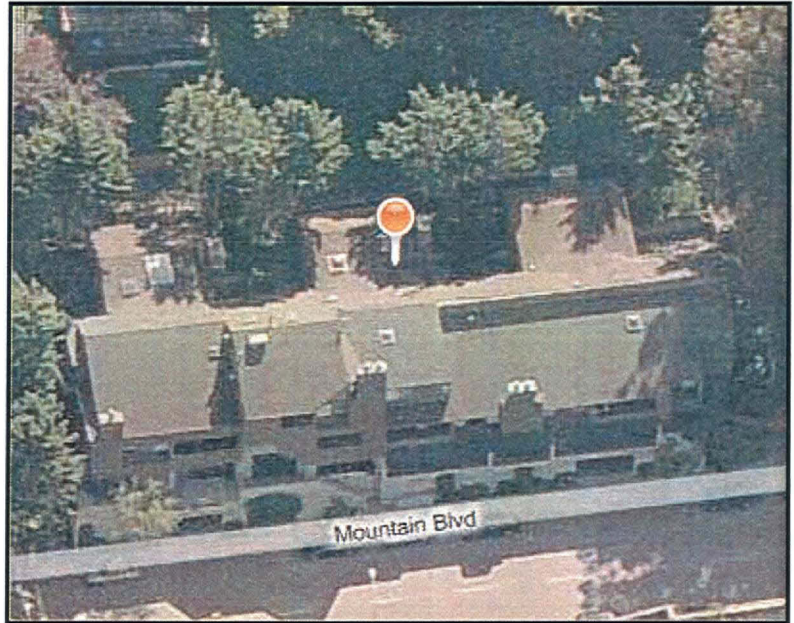
AdvanceSim   
Photo Simulation Solutions  
Contact (925) 202-8507



## Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report

---

Prepared for:  
AT&T Mobility, LLC  
c/o The Lyle Company  
3140 Gold Camp Drive Suite 30  
Rancho Cordova, CA 95670



USID# 12731  
Site No. CNU0092  
Hwy 13  
1900 Mountain Boulevard  
Oakland, California 94611  
Alameda County  
37.471600; -122.159000 NAD83

EBI Project No. 62101415  
October 11, 2010

TABLE OF CONTENTS

EXECUTIVE SUMMARY..... 1

1.0 SITE DESCRIPTION ..... 3

2.0 FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS ..... 3

3.0 AT&T RF EXPOSURE POLICY REQUIREMENTS ..... 5

4.0 WORST-CASE PREDICTIVE MODELING..... 5

5.0 RECOMMENDED SIGNAGE/COMPLIANCE PLAN ..... 7

6.0 SUMMARY AND CONCLUSIONS..... 8

7.0 LIMITATIONS..... 8

APPENDICES

- Appendix A Personnel Certifications
- Appendix B Antenna Inventory
- Appendix C RoofView® Export File
- Appendix D RoofView® Graphic
- Appendix E Compliance/Signage Plan

## EXECUTIVE SUMMARY

### Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by AT&T Mobility, LLC to conduct radio frequency electromagnetic (RF-EME) modeling for AT&T Site CNU0092 located at 1900 Mountain Boulevard in Oakland, California to determine RF-EME exposure levels from proposed AT&T wireless communications equipment at this site. As described in greater detail in Section 2.0 of this report, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. This report summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

This report contains a detailed summary of the RF EME analysis for the site, including the following:

- Antenna Inventory
- Site Plan with antenna locations
- Antenna inventory with relevant parameters for theoretical modeling
- Graphical representation of theoretical MPE fields based on modeling
- Graphical representation of recommended signage and/or barriers

This document addresses the compliance of AT&T's transmitting facilities independently and in relation to all collocated facilities at the site.

### Statement of Compliance

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

Per AT&T's corporate policy, the FCC's general population limits are applicable to all rooftop sites, regardless of the level of access control. As presented in the sections below, based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 15 feet of AT&T's proposed Sector B antennas at the upper roof level and within 5 feet of AT&T's Sector A antennas at the lower roof level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 6 feet of AT&T's proposed Sector B antennas at the upper roof level and within 1 foot of AT&T's Sector A antennas at the lower roof level.

### AT&T Recommended Signage/Compliance Plan

AT&T's RF Exposure Policy guidance, dated March 31, 2009, requires that:

1. All sites must be analyzed for RF exposure compliance;
2. All sites must have that analysis documented; and
3. All sites must have any necessary signage and barriers installed.

Site compliance recommendations have been developed based upon protocols presented in AT&T's RF Exposure Policy guidance document, dated March 31, 2009, additional guidance provided by AT&T, EBI's understanding of FCC and OSHA requirements, and common industry practice. Barrier locations



have been identified (when required) based on guidance presented in AT&T's RF Exposure Policy guidance document, dated March 31, 2009. The following signage is recommended at this site:

- Green INFO I sign posted on or next to the roof access point.
- Yellow CAUTION sign posted near the Sector A and B antennas.

The signage proposed for installation at this site complies with AT&T's RF Exposure Policy and therefore complies with FCC and OSHA requirements. No barriers are recommended for this site. More detailed information concerning site compliance recommendations is presented in Section 5.0 and Appendix E of this report.



## 1.0 SITE DESCRIPTION

This project involves the proposed installation of up to nine (9) wireless telecommunication antennas on a rooftop in Oakland, California. There are two Sectors (A and B) proposed at the site, with three (3) antennas that may be installed per sector. In each sector, there is proposed to be one GSM antenna transmitting in the 850 MHz and the 1900 MHz frequency ranges, one LTE antenna transmitting in the 700 MHz and 1710 MHz frequency ranges and one UMTS antenna transmitting in the 850 MHz and 1900 MHz frequency ranges. The Sector A antennas will be oriented 320° from true north. The Sector B antennas will be oriented 150° from true north. The bottoms of the A1, A2 and A3 antennas will be 7.34, 7.2, 8.55 feet above the lower roof level respectively. The bottoms of the B1, B2, B3 antennas will be .66, .52, 1.87 feet above the upper roof level respectively. Appendix B presents an antenna inventory for the site..

Access to this site is unknown. The roof is a sloped roof and as such, the general public is not able to access the rooftop.

## 2.0 FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS

The FCC has established Maximum Permissible Exposure (MPE) limits for human exposure to Radiofrequency Electromagnetic (RF-EME) energy fields, based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general public/uncontrolled exposure limits for members of the general public.

**Occupational/controlled exposure limits** apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general public/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

**General public/uncontrolled exposure limits** apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

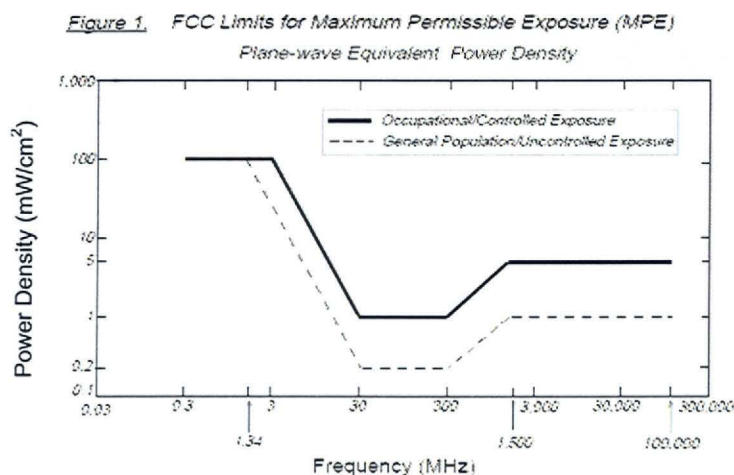
Table I and Figure I (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm<sup>2</sup>). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm<sup>2</sup>) and an uncontrolled MPE of 1 mW/cm<sup>2</sup> for equipment operating in the 1900 MHz frequency range. For the AT&T equipment operating at 850 MHz, the FCC's occupational MPE is 2.83 mW/cm<sup>2</sup> and an uncontrolled MPE of 0.57 mW/cm<sup>2</sup>. These limits are considered protective of these populations.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)

\* Plane-wave equivalent power density



Based on the above, the most restrictive thresholds for exposures of unlimited duration to RF energy for several personal wireless services are summarized below:



Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Personal Communication (PCS)	1,950 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Cellular Telephone	870 MHz	2.90 mW/cm <sup>2</sup>	0.58 mW/cm <sup>2</sup>
Specialized Mobile Radio	855 MHz	2.85 mW/cm <sup>2</sup>	0.57 mW/cm <sup>2</sup>
Most Restrictive Freq. Range	30-300 MHz	1.00 mW/cm <sup>2</sup>	0.20 mW/cm <sup>2</sup>

MPE limits are designed to provide a substantial margin of safety. 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.

Personal Communication (PCS) facilities used by AT&T in this area operate within a frequency range of 850-1900 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas directly in front of the antennas.

### 3.0 AT&T RF EXPOSURE POLICY REQUIREMENTS

AT&T's RF Exposure Policy guidance, dated March 31, 2009, requires that:

1. All sites must be analyzed for RF exposure compliance;
2. All sites must have that analysis documented; and
3. All sites must have any necessary signage and barriers installed.

Pursuant to this guidance, worst-case predictive modeling was performed for the site. This modeling is described below in Section 4.0. Lastly, based on the modeling and survey data, EBI has produced a Compliance Plan for this site that outlines the recommended signage and barriers. The recommended Compliance Plan for this site is described in Section 5.0.

### 4.0 WORST-CASE PREDICTIVE MODELING

In accordance with AT&T's RF Exposure policy, EBI performed theoretical modeling using RoofView® software to estimate the worst-case power density at the site rooftop-level resulting from operation of the antennas. RoofView® is a widely-used predictive modeling program that has been developed by Richard Tell Associates to predict both near field and far field RF power density values for roof-top and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

For this report, EBI utilized antenna and power data provided by AT&T, and compared the resultant worst-case MPE levels to the FCC's occupational/controlled exposure limits outlined in OET Bulletin 65. The assumptions used in the modeling are based upon information provided by AT&T, and information gathered from other sources. There are no other wireless carriers with equipment installed at this site.

Per AT&T's corporate policy, the FCC's general population limits are applicable to all rooftop sites, regardless of the level of access control. Based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 1 foot and 5 feet of AT&T's A2 and A3 antennas on the lower roof level and 11 feet and 15 feet of AT&T's B1, B2 and B3 antennas on the upper rooftop level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 1 feet of AT&T's A2 antenna on the lower rooftop level and 2, 5 and 6 feet in front of AT&T's B1, B2 and B3 antennas on the upper roof level. At the nearest walking/working surfaces to the AT&T Sector A antennas, the maximum power density generated by the AT&T antennas is approximately 607.90 percent of the FCC's general public limit (121.58 percent of the FCC's occupational limit). At the nearest walking/working surfaces to the AT&T Sector B antennas, the maximum power density generated by the AT&T antennas is approximately 3,909.10 percent of the FCC's general public limit (781.82 percent of the FCC's occupational limit).








The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix C. A graphical representation of the RoofView® modeling results is presented in Appendix D. It should be noted that RoofView is not suitable for modeling microwave dish antennas; however, these units are designed for point-to-point operations at the elevations of the installed equipment rather than ground level coverage.

## 5.0 RECOMMENDED SIGNAGE/COMPLIANCE PLAN

Signs are the primary means for control of access to areas where RF exposure levels may potentially exceed the MPE. As presented in the AT&T guidance document, the signs must:

- Be posted at a conspicuous point;
- Be posted at the appropriate locations;
- Be readily visible; and
- Make the reader aware of the potential risks prior to entering the affected area.

The table below presents the signs that may be used for AT&T installations.

Informational Signs		Alerting Signs	
	INFO 1		NOTICE
	INFO 2		CAUTION
	INFO 3		WARNING
	INFO 4		

Based upon protocols presented in AT&T's RF Exposure Policy guidance document, dated March 31, 2009, and additional guidance provided by AT&T, the following signage is recommended on the site:



Recommended Signage:

- Green INFO 1 sign posted on or next to the roof access point.
- Yellow CAUTION sign posted near the Sector A and B antennas.

No barriers are required for this site. Barriers may consist of rope, chain, fencing, or painted/taped stripes. The signage and any barriers are graphically represented in the Signage Plan presented in Appendix E.

## 6.0 SUMMARY AND CONCLUSIONS

EBI has prepared this Radiofrequency Emissions Compliance Report for the proposed AT&T telecommunications equipment at the site located at 1900 Mountain Boulevard in Oakland, California.

EBI has conducted theoretical modeling to estimate the worst-case power density from AT&T antennas to document potential MPE levels at this location and ensure that site control measures are adequate to meet FCC and OSHA requirements, as well as AT&T's corporate RF safety policies. As presented in the preceding sections, based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 15 feet of AT&T's proposed Sector B antennas at the upper roof level and 5 feet of AT&T's proposed Sector A antennas at the lower roof level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 6 feet of AT&T's proposed Sector B antennas at the upper roof level and within 1 foot of AT&T's Sector A antennas at the lower roof level.

Signage is recommended at the site as presented in Section 5.0 and Appendix E. Posting of the signage brings the site into compliance with FCC rules and regulations and AT&T's corporate RF safety policies.

## 7.0 LIMITATIONS

This report was prepared for the use of AT&T Mobility, LLC. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information provided by the client. The observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

## **Appendix A**

### **Certifications**

RF-EME Compliance Report  
EBI Project No. 62101415

USID No. 12731 Site No. CNU0092  
1900 Mountain Boulevard, Oakland, California

Reviewed and Approved by:



*H. Stockinger*

Herbert J. Stockinger, PE  
Senior Engineer

10-11-2010

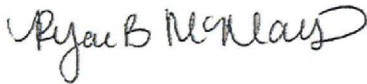
Note that EBI's scope of work is limited to an evaluation of the Radio Frequency - Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and broadcast equipment on the structural integrity of the building, are specifically excluded from EBI's scope of work.



## Preparer Certification

I, Ryan McManus, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" under the FCC regulations.
- I am familiar with the FCC rules and regulations as well as OSHA regulations both in general and as they apply to RF-EME exposure.
- I have been trained in on the procedures outlined in AT&T's RF Exposure Policy guidance (dated 3/31/09) and on RF-EME modeling using RoofView® modeling software.
- I have reviewed the data provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.



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## **Appendix B**

### **Antenna Inventory**

Antenna Number	Operator	Antenna Type	TX Freq (MHz)	ERP (Watts)	Gain (dBd)	Model	Azimuth (deg.)	Length (ft)	Horizontal Beamwidth (Deg.)	X	Y	Z
ATT A1	AT&T	Panel	UMTS 850	250	11.85	Kathrein 742-264	320	4.32	68	40	26	7.34
ATT A1	AT&T	Panel	UMTS 1900	250	14.65	Kathrein 742-264	320	4.32	65	40	26	7.34
ATT A2	AT&T	Panel	LTE 700	314	12.35	Kathrein 800-10764K	320	4.6	68	40	21	7.2
ATT A2	AT&T	Panel	LTE1710	599	15.15	Kathrein 800-10764K	320	4.6	61	40	21	7.2
ATT A3	AT&T	Panel	GSM 850	500	8.95	Kathrein 742-226	320	1.9	67	40	17	8.55
ATT A3	AT&T	Panel	GSM 1900	500	11.15	Kathrein 742-226	320	1.9	60	40	17	8.55
ATT B1	AT&T	Panel	UMTS 850	250	11.85	Kathrein 742-264	150	4.32	68	67	20	0.66
ATT B1	AT&T	Panel	UMTS 1900	250	14.65	Kathrein 742-264	150	4.32	65	67	20	0.66
ATT B2	AT&T	Panel	LTE 700	314	12.35	Kathrein 800-10764K	150	4.6	68	67	24	0.52
ATT B2	AT&T	Panel	LTE1710	599	15.15	Kathrein 800-10764K	150	4.6	61	67	24	0.52
ATT B3	AT&T	Panel	GSM 850	500	8.95	Kathrein 742-226	150	1.9	67	67	28	1.87
ATT B3	AT&T	Panel	GSM 1900	500	11.15	Kathrein 742-226	150	1.9	60	67	28	1.87

I. Note that EBI uses an assumed set of antenna specifications and powers for unknown and other carrier antennas for modeling purposes.

## **Appendix C**

### **Roofview® Export File**

Map, Settings, Antenna, and Symbol Data Table ... Exported from workbook -> RoofView 4.15.xls  
Done on 10/5/2010 at 5:46:10 PM.

Use this format to prepare other data sets for the RoofView workbook file.

You may use as many rows in this TOP header as you wish.

The critical point are the cells in COLUMN ONE that read 'Start...' (eg. StartMapDefinition)

If used, these (4) headers are required to be spelled exactly, as one word (eg. StartMapDefinition)

The very next row will be considered the start of that data block.

The first row of the data block can be a header (as shown below), but this is optional.

When building a text file for import, Add the Map info first, then the Antenna data, followed by the symbol data.

All rows above the first marker line 'Start...' will be ignored, no matter how many there are.

This area is for you use for documentation.

End of help comments.

You can place as much text here as you wish as long as you don't place it below  
the Start Map Definition row below the blue line.

You may insert more rows using the Insert menu.

Should you need additional lines to document your project, simply insert additional rows

by highlighting the row number adjacent to the blue line below and then clicking on the Insert menu

and selecting rows.

\*Azimuths have been changed for modeling purposes  
Actual AT&T azimuths are 320-150 sectors A-B

#### StartMapDefinition

Roof Max YRoof Max XMap Max X Y Offset X Offset mber of Ant envelope  
120 100 150 120 20 20 1 ES81:\$DZ5:ES81:\$DZ5200

#### StartSettingsData

Standard Method Uptime scale Factor Low Thr Low Color Mid Thr Mid Color Other Loss  
4 2 1 1 100 1 500 4 5000 Input Power Calc Power Mfg Model (ft) X Y Z Type (ft) ddb Gain Pt Dir Bwdth Uptime Profile ON flag

#### StartAntennaData

ID	Name	Freq (MHz)	Trans Power	Trans Count	Coax Len	Coax Type	Mid Thr	Mid Color	Hi Thr	Hi Color	Over Color	Ap Ht	Multp Ht	Method	(ft)	X	Y	Z	Type	(ft)	ddb	Gain	Pt Dir	Bwdth	Uptime Profile	ON flag
ATT A1	UMTS	850	26.77835	1					26.77835	Kathrein	742-264	40	26	7.34	4.32	11.85	68:246	65:246	65:246	65:246	65:246	65:246	65:246	65:246	65:246	ON
ATT A2	LTE	700	30	1					14.05348	Kathrein	742-264	40	21	7.2	4.6	12.35	68:246	68:246	68:246	68:246	68:246	68:246	68:246	68:246	68:246	ON
ATT A3	GSM	850	26.10681	4					30	Kathrein	800-107641	40	21	7.2	4.6	15.15	61:246	61:246	61:246	61:246	61:246	61:246	61:246	61:246	61:246	ON
ATT B1	UMTS	1900	15.73091	4					104.4273	Kathrein	742-226	40	17	8.55	1.9	11.15	60:246	60:246	60:246	60:246	60:246	60:246	60:246	60:246	60:246	ON
ATT B2	LTE	700	30	1					26.77835	Kathrein	742-264	67	20	0.66	4.32	11.85	68:76	68:76	68:76	68:76	68:76	68:76	68:76	68:76	68:76	ON
ATT B3	GSM	850	26.10681	4					14.05348	Kathrein	742-264	67	20	0.66	4.32	14.65	65:76	65:76	65:76	65:76	65:76	65:76	65:76	65:76	65:76	ON
ATT B3	GSM	1900	15.73091	4					30	Kathrein	800-107641	67	24	0.52	4.6	12.35	68:76	68:76	68:76	68:76	68:76	68:76	68:76	68:76	68:76	ON
ATT B3	GSM	850	26.10681	4					104.4273	Kathrein	742-226	67	28	1.87	1.9	8.95	61:76	61:76	61:76	61:76	61:76	61:76	61:76	61:76	61:76	ON
ATT B3	GSM	1900	15.73091	4					62.92364	Kathrein	742-226	67	28	1.87	1.9	11.15	60:76	60:76	60:76	60:76	60:76	60:76	60:76	60:76	60:76	ON

#### StartSymbolData

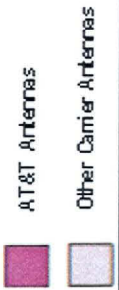
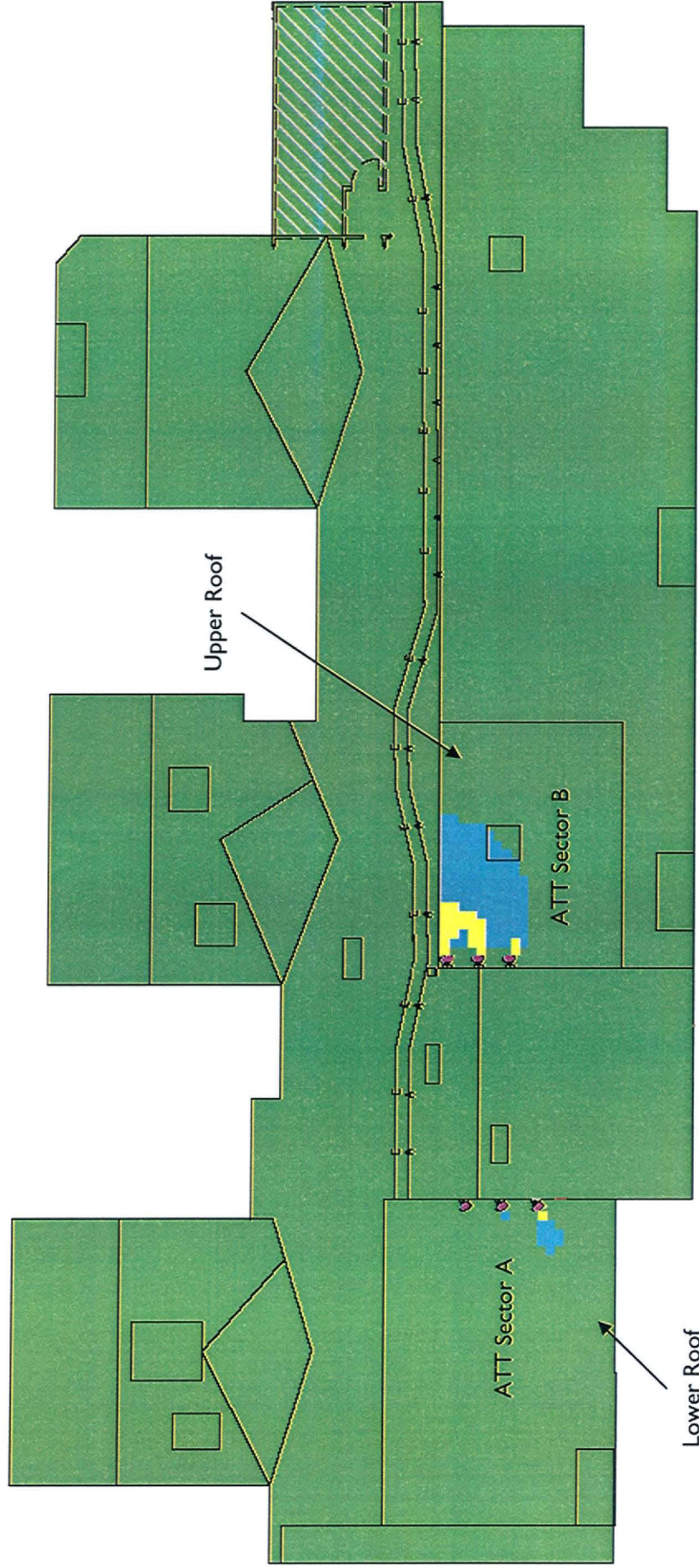
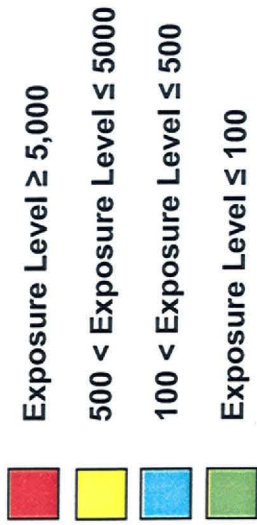
Sym	Map Marke	Roof X	Roof Y	Map Label notes for this table only )
Sym	5	35	AC Unit	multiple symbols
Sym	14	5	Roof Access	
Sym	45	5	AC Unit	
Sym	45	20	Ladder	

## **Appendix D**

### **Roofview ® Graphics**



# % of FCC Public Exposure Limit



## Roofview: Composite Exposure Levels

Facility Operator: AT&T Mobility

Site Name: Hwy 13

AT&T Site Number: CNU0092

USID Number: 12731

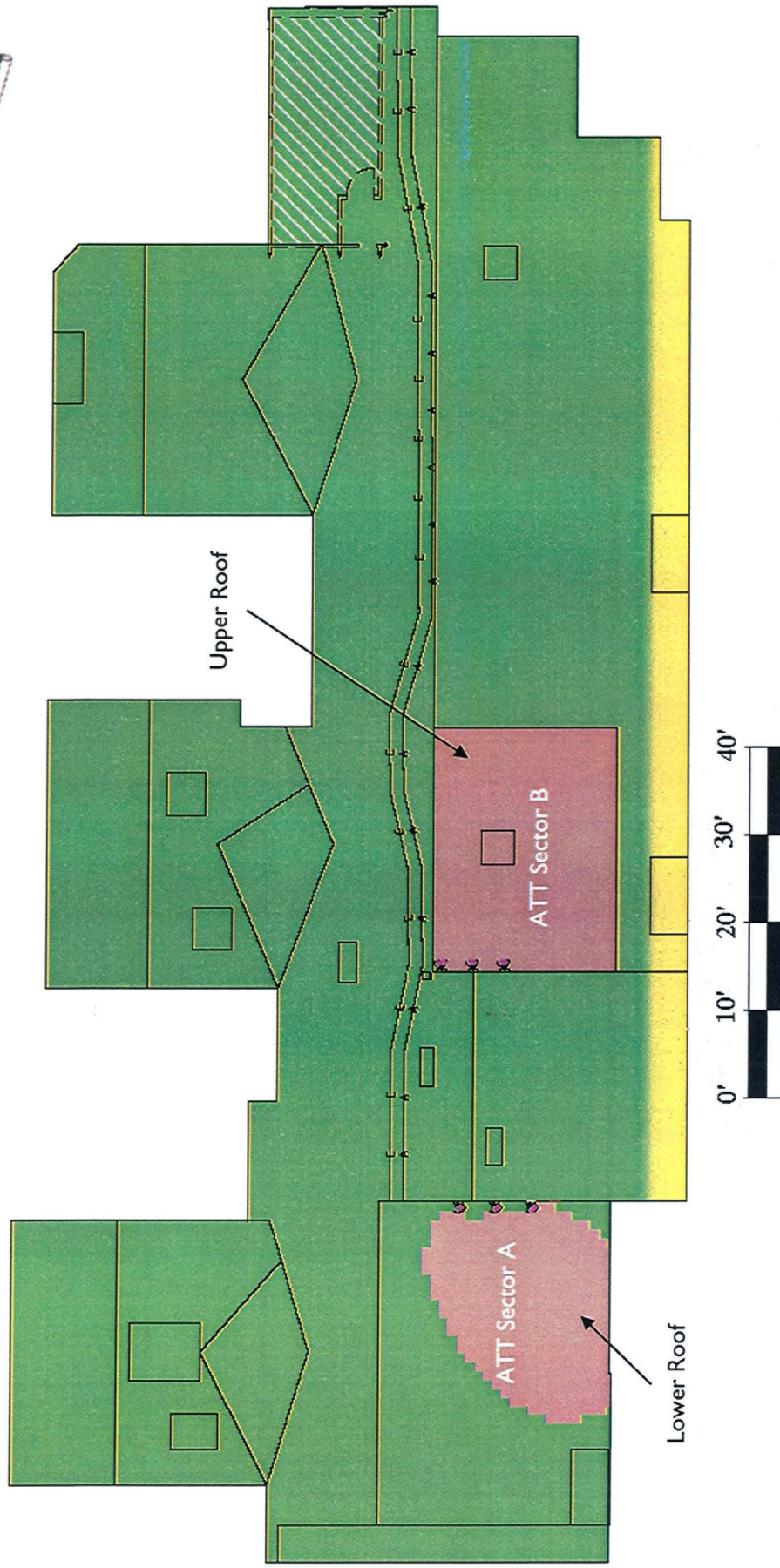
Report Date: 10-11-10





# % of FCC Public Exposure Limit

- Exposure Level >5
- Exposure Level ≤ 5



## Roofview: AT&T Exposure Levels

Facility Operator: AT&T Mobility

Site Name: Hwy 13

AT&T Site Number: CNU0092

USID Number: 12731

Report Date: 10-11-10



AT&T Antennas

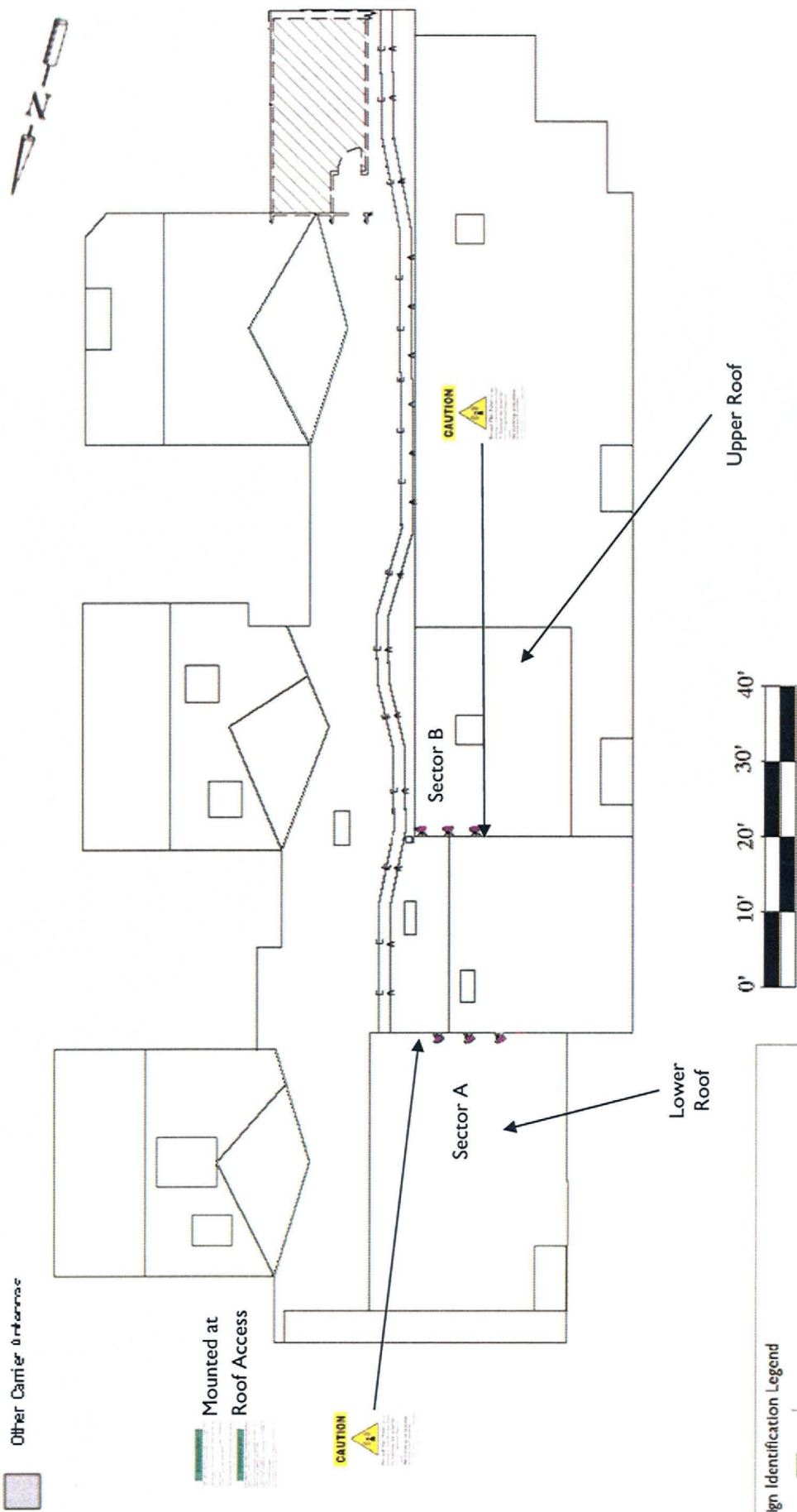
Other Carrier Antennas



## **Appendix E**

### **Compliance/Signage Plan**

- AT&T Antennas
- Other Carrier Antennas



Sign Identification Legend	
	Denotes AT&T Informational Sign 1
	Denotes AT&T Informational Sign 2
	Denotes AT&T Informational Sign 3
	Denotes AT&T Informational Sign 4
	Denotes AT&T NOTICE Sign
	Denotes AT&T CAUTION Sign
	Denotes AT&T WARNING Sign

### Compliance/Signage Plan

Facility Operator: AT&T Mobility

Site Name: Hwy 13

AT&T Site Number: CNU0092

USID Number: 12731

Report Date: 10-11-10