COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: April 20, 2023

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: Consideration of a Use Permit Renewal, pursuant to Section 6512.6 of the Zoning Regulation, to allow the continued operation of an existing wireless telecommunications facility operated by AT&T Mobility. The project site is located at 3001 Edgewood Road in the unincorporated Redwood City area of San Mateo County.

County File Number: PLN 2004-00106 (AT&T)

PROPOSAL

The project applicant, Kathryn Leal of Epic Wireless, proposes on behalf of AT&T to renew an existing Use Permit (PLN 2004-00106) to allow the continued operation of a wireless telecommunication facility located on a PG&E tower at 3001 Edgewood Road near the intersection of Edgewood Road and Interstate 280.

RECOMMENDATION

1. That the Zoning Hearing Officer approve the Use Permit Renewal, County File No. PLN 2004-00106 by making the required findings and adopting the conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Tiare Peña, Project Planner; Tpena@smcgov.org

Applicant: Kathryn Leal of Epic Wireless for AT&T Mobility

Owner: PSA Institutional Partners, LP

Public Notification: Ten (10) day advanced notification for the hearing was mailed to property owners within 300 feet of the project parcel and a notice for the hearing posted in a newspaper San Mateo Times.

Location: 3001 Edgewood Road, near intersection of Edgewood Road and Interstate 280 (Pulgas Ridge Open Space Preserve)

APN(s): 050-470-090

Size: 284 acres

Existing Zoning: R-E/S-11 (Residential Estates/Minimum Parcel Size 1-5 acres)

General Plan Designation: Public Recreation

Sphere-of-Influence: San Carlos

Existing Land Use: PG&E transmission tower and cellular facilities

Water Supply: N/A

Sewage Disposal: N/A

Flood Zone: FEMA Flood Insurance Rate Map designation indicates parcel as Zone X, Community Panel No. 06081C0285E, dated October 16, 2012.

Environmental Evaluation: The project is categorically exempt pursuant to §15301, Class 1, of the California Environmental Quality Act (CEQA) Guidelines for the continued operation of existing public or private facilities involving no physical changes or expansion of use.

Setting: The project site is located near the intersection of Edgewood Road and Interstate 280 and is within the I-280 Junipero Serra State Scenic Corridor. Access to the facility is from an improved access road off Edgewood Road through an existing park and ride area. The site contains an existing 118'-6" tall PG&E tower structure with three existing cellular carriers: AT&T (applicant), Metro PCS, and Sprint/Nextel. The existing PG&E tower is visible from I-280 and Edgewood Road.

Chronology:

Date		Action
March 9, 2004	-	Application for telecommunications facility received.
October 13, 2004	-	PLN2004-00106 approved at Planning Commission Public Hearing.
May 23, 2012	-	Renewal and Major Amendment of PLN2004-00106 approved at Planning Commission Public Hearing.
December 18, 2019	-	Minor amendment to remove and replace three antennas and mechanical cabinet approved under the Federal Exemption Act.

September 6, 2022 - Application for use permit renewal with no amendments received and deemed complete.

April 6, 2023 - Zoning Hearing Officer public hearing.

DISCUSSION

A. KEY ISSUES

1. Conformance with the San Mateo County General Plan

The proposal has been reviewed against and found to be consistent with all applicable General Plan (GP) Policies. The applicable GP policies are listed and discussed below.

Visual Quality Policies

Policies 4.14 (*Appearance of New Development*), 4.20 (*Utility Structures*) and 4.21 (*Scenic Corridors*) seek to promote and enhance good design, site relationships and other aesthetic considerations including minimizing the appearance of utilities in scenic corridors.

AT&T's existing 361 sq. ft. ground equipment lease area is enclosed by 6'-0" tall wood fencing, is located under the PG&E tower, and is not significantly visible from public viewpoints. The ground equipment cabinet is located within an existing cabinet. There are three existing cell carriers currently located on the PG&E tower. Staff believes the project, as proposed and conditioned, will not have any significant visible impacts from the scenic corridor or the surrounding area.

General Land Use

Policy 7.16 (*Land Use Objectives for Urban Areas*) seeks to maximize the efficiency of public facilities, services, and utilities. The telecommunications facility will increase the existing facility's capacity and network coverage to the surrounding area without introducing new towers or poles to the area that would increase the visual and scenic quality of the area.

2. Compliance with Zoning Regulations

The project site is located within the R-E/S-11 (Residential Estates/Minimum Parcel Size 1 to 5 acres) Zoning District. The proposed amendment complies with the development criteria set forth by the County Zoning Regulations for the R-E/S-11 District as evidenced by the following chart:

	Required	*Existing*
Minimum Front Yard Setback	20 ft.	No Change*
Minimum Side Yard Setback	10 ft.	No Change*
Minimum Rear Yard Setback	20 ft.	No Change*
Maximum Height	36 ft.	66'-2"
*Existing PG&E tower.		

The maximum allowed height limit in the R-E/S-11 District is 36 feet. Section 6405 of the County Zoning Regulations allows a height exception for towers, radio towers, and similar structures to be built and used to a greater height than the limit established for the surrounding zoning district upon securing a use permit. The antennas were approved to exceed the height to a maximum of 66'-2" at the May 23, 2012 Planning Commission Public Hearing

3. Conformance with Wireless Telecommunication Facilities Ordinance

According to Section 6512.6 of the Wireless Telecommunication Facilities Ordinance, existing facilities built prior to January 9, 2009, are subject to the provisions of the Ordinance related to new facilities. Staff has reviewed the project against the provisions of the Wireless Telecommunication Facilities Ordinance and determined that the project complies with the applicable standards discussed below.

a. Development and Design Standards

Section 6512.2.B prohibits wireless facilities from being located in residentially zoned areas, unless the applicant demonstrates that no other site allows feasible or adequate capacity and coverage. Evidence shall include an alternative site analysis within 2.5 miles of the proposed facility.

The existing AT&T facility has been in operation since its establishment in 2004 Furthermore, a radio frequency (RF) report prepared by Waterford Consultants dated July 11, 2022 (Attachment XXX) has determined that the facility would not exceed any emission limits allowed by the Federal Communications Commission (FCC). Specifically at accessible levels the maximum emission levels is 43.1345% of FCC

Section 6512.2.C prohibits wireless telecommunication facilities from being located in areas where co-location on existing facilities would provide equivalent coverage with less environmental impact.

The facility was established under use permit approval in 2004 and has been in operation ever since. Two other service providers, Metro PCS and Sprint/Nextel are co-located on the PG&E tower. The radio frequency report prepared by Waterford Consulting included a cumulative analysis of the cellular facilities at this subject location, and concluded that the total cumulative emission limits does not exceed the limits allowed by the FCC.

Section 6512.2.D requires wireless telecommunication facilities to be constructed so as to accommodate and be made available for co-location unless technologically infeasible.

As mentioned previously, there are a total of three cellular carriers collocated at the subject site (AT&T, Metro PCS, and Sprint/Nextel). Because of the limited space on the tower available for a new cellular service provider to collocate it would be difficult for a new facility to collocate at the project site.

Section 6512.2.E - G seek to minimize and mitigate visual impacts from public views by ensuring appropriate vegetative screening, painting of equipment, or other methods of blending equipment in with the surrounding environment are implemented and require facilities to be constructed of non-reflective materials.

While the AT&T facility is located on a PG&E tower within the Junipero Serra State Scenic Corridor and is visible from Edgewood Road and Interstate 280, staff believes that the visual impacts from the facility's proposed modifications will not be overly dominant when viewed in the context of the existing 118'-6" tall PG&E tower. To further ensure any visual impacts are minimized, a condition has been included to require that all equipment be painted n appropriate color to match the existing PG&E tower and surrounding area, and to be of non-reflective materials and/or color.

Section 6512.2.H requires compliance with the underlying zoning district.

Refer to Section A.2 above (Zoning Regulations) for further discussion.

Compliance with Conditions of Last Approval

Staff has reviewed the previous Use Permit conditions of approval for AT&T-Mobility (PLN 2004-00106), last approved May 23, 2012, and has determined that AT&T Mobility is in compliance with all previous conditions, see Attachment F of this report. No physical changes are proposed as part of the renewal. Previous conditions that remain relevant, are included in Attachment A of this staff report.

4. Compliance with Use Permit Findings

In order to approve the use permit to allow the installation and operation of this facility, the Zoning Hearing Officer must make the following findings:

a. *That the establishment, maintenance and/or conducting of the proposed use will not, under the circumstances of this particular case, be detrimental to the public welfare or injurious to property or improvements in said neighborhood.*

The Facility has been in operation since 2004 with no reported complaints from the surrounding community. The antennas will continue to be located on the existing PG&E tower and are not accessible to the general public due to limited access to the site (i.e. locked gate). According to the Radio Frequency Analysis (Attachment E) the site will comply with Federal Communications Commission (FCC) guidelines limiting public exposure to radio frequency energy. The measured public exposure level for this project indicates that the facility, coupled with the existing ambient conditions, will generate exposure levels that are 43.1345% of the FCC's public exposure limit for a person at ground level. The facility does not introduce any significant noise, odor, or light impacts and, as such, will not be detrimental to the public welfare or injurious to property or improvements in the neighborhood.

b. *That the approval of this cellular telecommunication addition is necessary for the public health, safety, convenience or welfare of the community.*

The use is for personal telecommunication services. The FCC has established the desirability and need for mobile and wireless telephone service to facilitate communication between mobile units and the existing wire-dependent telephone system. The wireless network supported by these antenna facilities provides greater mobility and accessibility than

the landline networks can offer. The system is considered necessary for public health, safety, convenience and welfare.

B. ENVIRONMENTAL REVIEW

The proposed telecommunications facility is categorically exempt from the California Environmental Quality Act (CEQA) under provisions of §15301, Class 1 of the California Environmental Quality Act for the continued operation of existing public or private facilities involving no physical changes or expansion in use.

C. REVIEWING AGENCIES

1. Building Inspection Section
2. Department of Public Works

ATTACHMENTS

A. Recommend Findings and Conditions of Approval
B. Location Map
C. Survey
D. Site Plan
E. Radio Frequency Analysis
F. PLN 2004-00106, conditions from the 2012 Use Permit Approval

Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2004-00106 Hearing Date: April 20, 2023

Prepared By: Tiare Peña, Project Planner For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

For the Environmental Review, Find:

1. That the project is categorically exempt from the California Environmental Quality Act (CEQA) under provisions of §15301, Class 1, for the continued operation of existing public or private facilities involving no additional physical changes and no expansion of use.

For the Use Permit, Find:

2. That the establishment, maintenance and/or conducting of the proposed use will not, under the circumstances of this particular case, be detrimental to the public welfare or injurious to property or improvements in said neighborhood because the facility will not introduce any significant visual, noise, odor, or light impacts to the surrounding neighborhood.

3. That the approval of this use permit renewal for an existing cellular telecommunication facility that is necessary for the public health, safety, convenience or welfare of the community as the site provides telecommunications coverage to the surrounding community, which serves as a benefit to both private and public users.

CONDITIONS OF APPROVAL

1. This approval applies only to the proposal, documents, and plans described in this report and submitted to and approved by the Zoning Hearing Officer on September 6, 2022. Modifications beyond that which was approved by the Zoning Hearing Officer will be subject to review and approval by the Community Development Director and may require review at a public hearing. Minor modifications that are largely consistent with this approval may be approved at the discretion of the Community Development Director.

2. This permit shall be valid for ten (10) years from the date of this approval and shall expire on April 20, 2033. If continuation of this use is desired, the applicant shall file a use permit renewal application with the Planning and Building Department six months prior to its expiration and pay the fees applicable at that time.

3. This use permit renewal shall be for the continued operation of the existing telecommunication facility only. Any substantial change or change in intensity of use shall require an amendment to the use permit, which requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

4. The applicant shall continue to maintain the color of all existing facilities in a manner that is consistent with the color samples on file (ight gray and green). Over time paint colors fade and, as result, facilities may become more visually prominent than initially proposed. The applicant shall continue to take all necessary measures to ensure that the site remains consistent with all approved colors.

5. This installation shall be removed in its entirety at that time when this technology becomes obsolete, when the facility is no longer needed to achieve coverage objectives, or if the facility remains inactive for six consecutive months. If any of these circumstances occur, the entire facility, including all antennas and associated equipment, cables, power supplies, etc., shall be removed and the site shall be returned to its pre-construction state to the extent practicable.

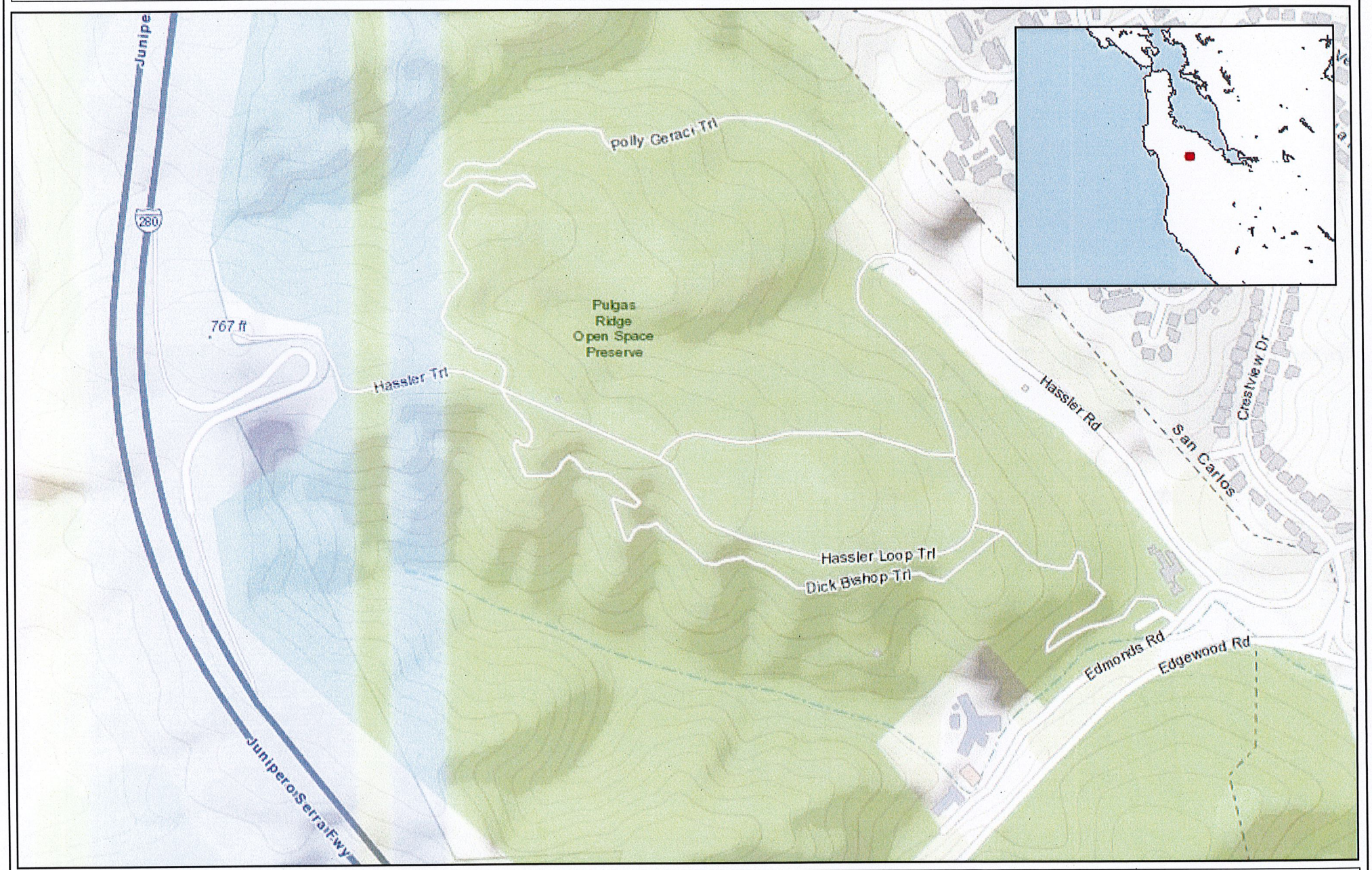
6. The applicant shall keep their FCC license active and in good standing throughout this permit's 10-year term. The applicant shall immediately notify the Planning and Building Department if any changes to their license occur.

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B

San Mateo County

PLN2004-00106 - 3001 Edgewood Road, San Carlos



0.28 0 0.14 0.28 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

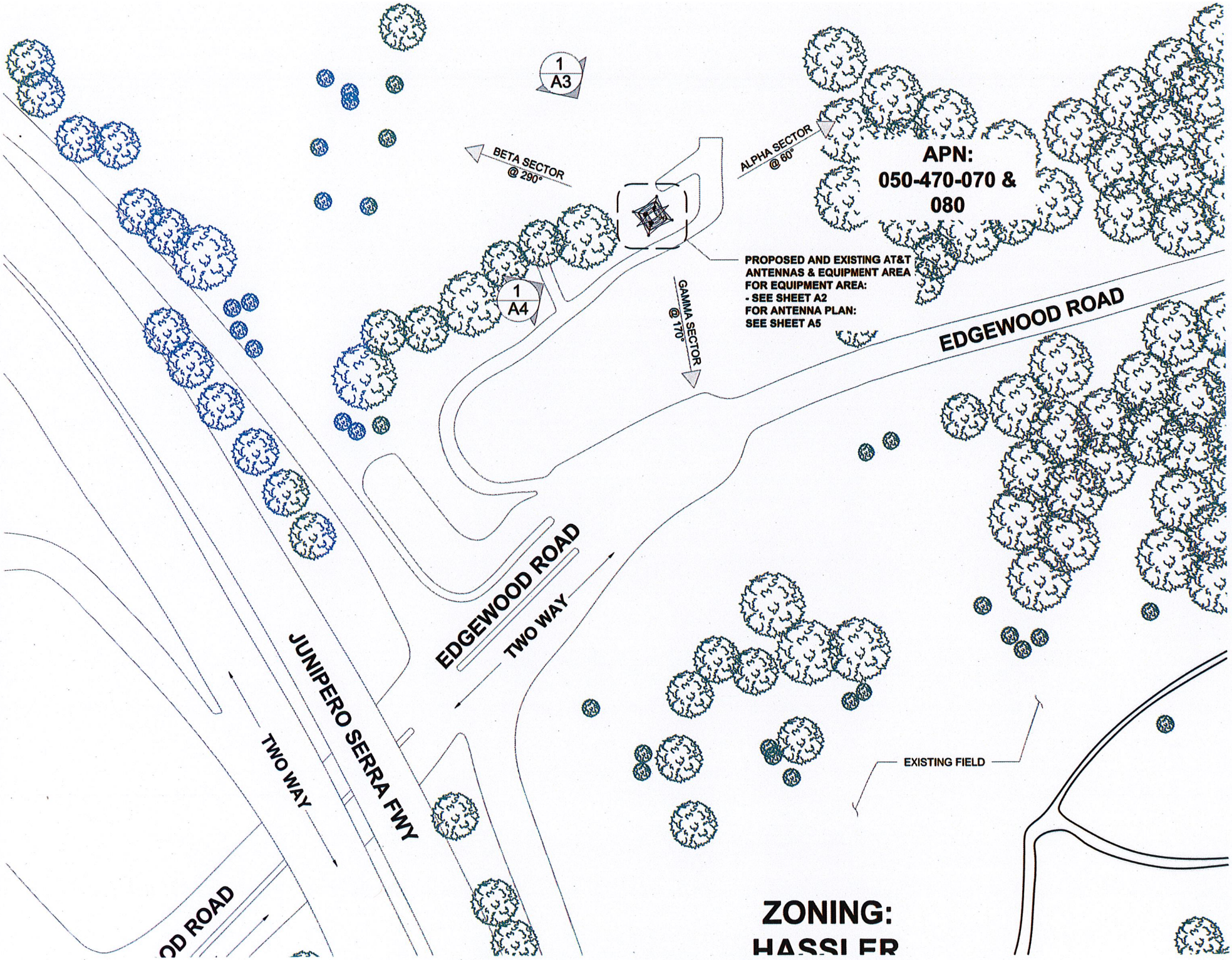
1: 9,028

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT C



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT D

SITE PHOTO

PROJECT :	**LTE 3C & 4TXRX ANTENNA RETROFIT**
SITE # :	**CNU5388**
FA # :	**10095817**
PTN # :	**3701843799, 3701A0EZQZ**
PACE # :	**MRSFR026119, MRSFR046717**
SAP TOWER # :	**40812553**
LINE NAME:	**JEFFERSON-HILLSDALE JCT 60 KV**
TOWER NUMBER:	**001/007**
SITE NAME :	**EDGEWOOD - I-280**
ADDRESS :	**3001 EDGEWOOD ROAD SAN CARLOS, CA 94070**

3701A0P71P
3701A0P71T
MRSFR060
MRSFR060928
MRSFR060611

PROJECT INFORMATION

SITE NAME:	EDGEWOOD - I-280
COUNTY:	SAN MATEO
ADDRESS:	3001 EDGEWOOD ROAD SAN CARLOS, CA 94070
JURISDICTION:	SAN MATEO COUNTY
SITE NUMBER:	CNU5388
FA NUMBER:	10095817
PTN:	3701843799, 3701A0EZQZ
PACE:	MRSFR026119, MRSFR046717
USID:	13304
SAP TOWER #	40812553
LINE NAME:	JEFFERSON-HILLSDALE JCT 60 KV
TOWER #	001/007
APN:	050-470-070 & 080
ZONING CLASSIFICATION:	HASSLER OPEN SPACE PRESERVE
OCCUPANCY:	S2
CONSTRUCTION TYPE:	11B
LATITUDE:	37.4703089° N (NAD 83)
LONGITUDE:	122.2911319° W (NAD 83)
PROPERTY OWNER:	MIDPENINSULA REGIONAL OPEN SPACE DISTRICT 330 CASTEL CIRCLE LOS ALTOS, CA 94022
APPLICANT:	AT&T MOBILITY 5001 EXECUTIVE PARKWAY SAN RAMON, CA 94583 CONTACT: BRANDY VASSALLO EMAIL: BV232V@ATT.COM
AT&T PROJECT MANAGER:	BRANDY VASSALLO EMAIL: BV232V@ATT.COM
AT&T CONSTRUCTION MANAGER:	DAVE THOMAS EMAIL: DT506U@ATT.COM

PROJECT CONSULTANTS

PROJECT MANAGEMENT:	SAC WIRELESS, LLC 1401 WILLOW PASS ROAD, SUITE 350

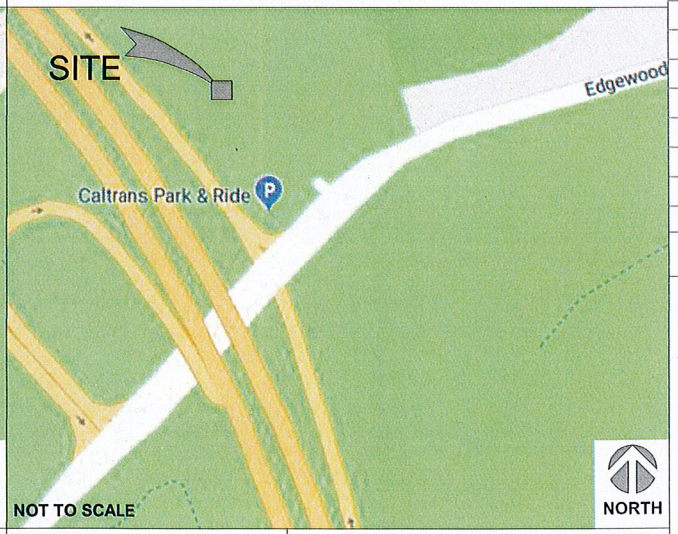
SCOPE OF WORK

AT&T PROPOSES TO:

- REMOVE (3) EXISTING AT&T PANEL ANTENNAS IN POSITION 2 (TYP. OF 3 SECTORS)
- REMOVE (3) EXISTING AT&T RRUS-12 IN POSITION 2 (TYP. OF 3 SECTORS)
- REMOVE (3) EXISTING AT&T RRUW IN EQUIPMENT ENCLOSURE FOR POSITION 1
- REMOVE (9) EXISTING AT&T TMA'S IN POSITION 1 (TYP. OF 3 SECTORS)
- REMOVE (12) EXISTING AT&T 7/8" COAX CABLES
- INSTALL (3) PROPOSED AT&T LTE700/LTEPCS(4X4) PANEL ANTENNAS IN POSITION (2) (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T RRUS4415 B25 IN POSITION 2 (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T RRUS4426 B66 IN POSITION 1 (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T SWIVEL MOUNTS FOR RRU'S (TYP.OF 3 SECTORS)
- INSTALL (1) PROPOSED AT&T DC-6 RAYCAP (SQUID)
- INSTALL (1) PROPOSED AT&T 2" FLEXIBLE CONDUIT
- INSTALL (1) PROPOSED AT&T 5216 UNIT INSIDE PURCELL CABINET
- INSTALL (1) PROPOSED AT&T XMU UNIT INSIDE PURCELL CABINET
- INSTALL (2) PROPOSED AT&T DC-12 RAYCAP INSIDE EXISTING EQUIPMENT ENCLOSURE
- INSTALL (1) PROPOSED AT&T POWER PLANT INSIDE EXISTING EQUIPMENT ENCLOSURE

VICINITY MAP

LOCAL MAP

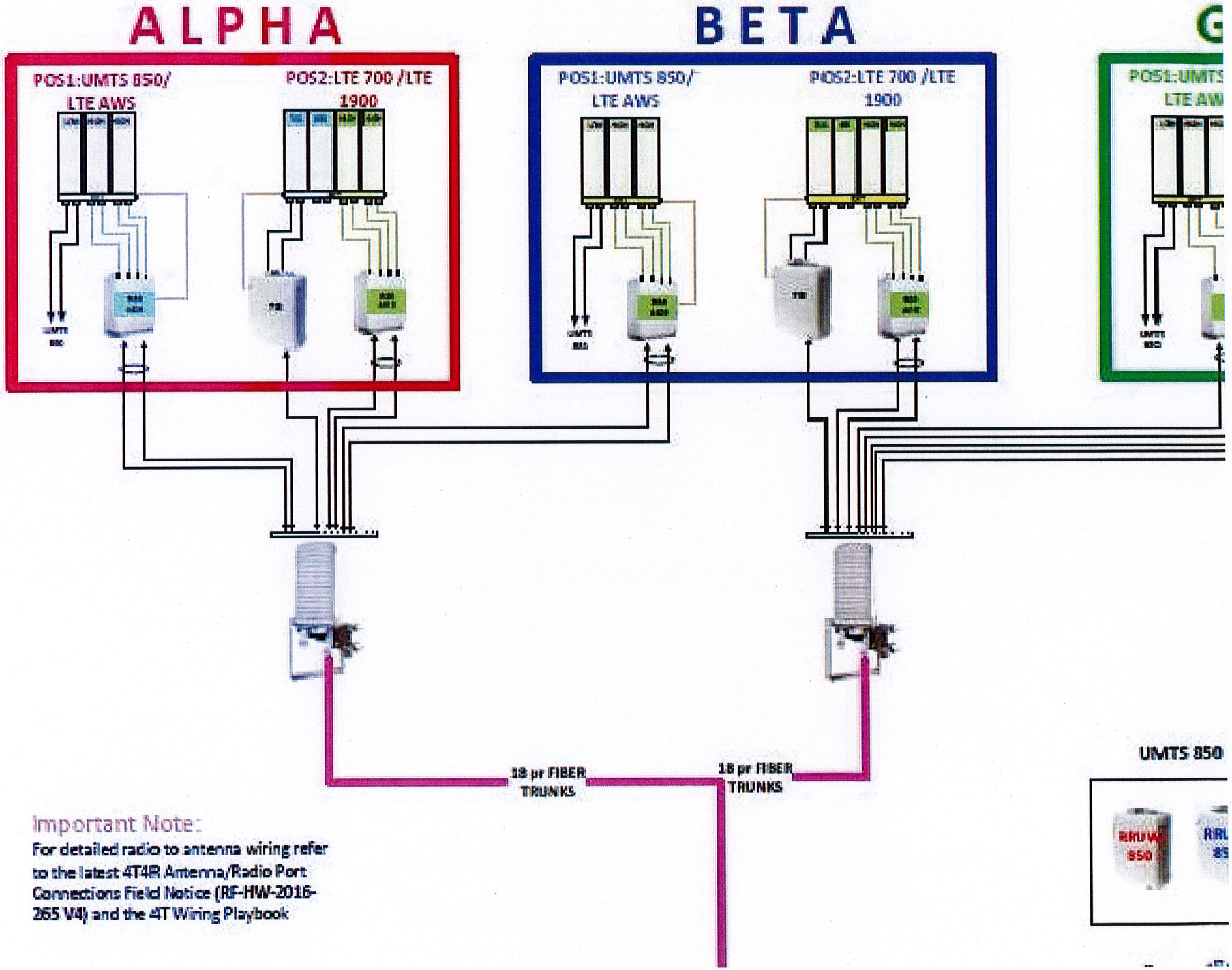


DRIVING DIRECTIONS

DIRECTIONS FROM: OAKLAND INTERNATIONAL AIRPORT

REFERENCE MATERIALS

- CONTRACTOR TO USE VERSION OF THE



SIGNAGE AND STRIPING INFORMATION

1. THE FOLLOWING INFORMATION IS A GUIDELINE WITH RESPECT TO PREVAILING STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY AND SHOULD BE USED AS SUCH. IF THE SITE'S EMF REPORT OR ANY LOCAL, STATE OR FEDERAL GUIDELINES OR REGULATION SHOULD BE IN CONFLICT WITH ANY PART OF THESE NOTES OR PLANS, THE MORE RESTRICTIVE GUIDELINE OR REGULATION SHALL BE FOLLOWED AND OVERRIDE THE LESSER.

2. THE PUBLIC LIMIT OF RF EXPOSURE ALLOWED BY AT&T IS 1MWCM² AND THE OCCUPATIONAL LIMIT OF RF EXPOSURE ALLOWED BY AT&T IS 5MWCM²

3. IF THE BOTTOM OF THE ANTENNA IS MOUNTED (8) EIGHT FEET ABOVE THE GROUND OR ROOF LINE OF THE PERSONAL COMMUNICATION SYSTEM (PCS) AND DOES NOT EXCEED THE PUBLIC LIMIT OF RF EXPOSURE LIMIT THEN NO STRIPING OR BARRICADES SHOULD BE NEEDED.

4. IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE AREA IS PUBLICLY ACCESSIBLE (E.G. ROOF ACCESS DOOR CANNOT BE LOCKED OR THERE IS AN EXISTING FIRE EGRESS), THEN BOTH BARRICADES AND STRIPING WILL BE NEEDED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPING WILL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER THE CONSTRUCTION OF THE SITE. USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.

5. IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS NOT EXCEEDED AND THE AREA IS NOT PUBLICLY ACCESSIBLE (E.G. ROOF ACCESS DOOR IS LOCKED), THEN JUST STRIPING OUT TO THE PUBLIC LIMIT WILL BE NEEDED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE STRIPING WILL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER THE CONSTRUCTION OF THE SITE. USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH STRIPING.

6. ALL TRANSMIT ANTENNAS REQUIRE A (3) THREE LANGUAGE WARNING SIGN WRITTEN IN ENGLISH, SPANISH, AND CHINESE. THIS SIGN WILL BE PROVIDED TO THE CONTRACTOR BY THE AT&T CONSTRUCTION MANAGER AT THE TIME OF CONSTRUCTION. THE LARGER SIGN SHALL BE PLACED AT ALL ROOF ACCESS LOCATIONS AND ON ALL BARRICADES IN PLAIN SIGHT AND THE SMALLER SIGN SHALL BE PLACED ON THE ANTENNAS THEMSELVES OR ON THE OUTSIDE OF THE ANTENNA ENCLOSURES IN A MANNER THAT IS EASILY SEEN BY ANY PERSON ON THE ROOF. WARNING SIGNS SHALL COMPLY WITH ANSI C95.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS. ALL SIGNS WILL HAVE AT&T'S NAME AND THE COMPANY CONTACT INFORMATION (E.G. TELEPHONE NUMBER) TO ARRANGE FOR ACCESS TO THE RESTRICTED AREAS. THIS TELEPHONE NUMBER WILL BE PROVIDED TO THE CONTRACTOR BY THE AT&T CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION.

7. PHOTOS OF ALL STRIPING, BARRICADES, AND SIGNAGE WILL BE PART OF THE CONTRACTORS CLOSE OUT PACKAGE AND WILL BE TURNED INTO THE AT&T CONSTRUCTION PROJECT MANAGER AT THE END OF CONSTRUCTION. STRIPING SHALL BE DONE WITH FADE RESISTANT YELLOW SAFETY PAINT IN A CROSS HATCH PATTERN. ALL BARRICADES SHALL BE MADE OF AN RF FRIENDLY MATERIAL SO THAT THEY DO NOT BLOCK OR INTERFERE WITH THE OPERATION OF THE SITE AND SHALL BE PAINTED WITH FADE RESISTANT YELLOW SAFETY PAINT. THE CONTRACTOR SHALL PROVIDE ALL RF FRIENDLY BARRICADES NEEDED AND SHALL PROVIDE THE AT&T CONSTRUCTION PROJECT MANAGER WITH A DETAILED SHOP DRAWING OF EACH BARRICADE.

8. ALL REQUIRED SIGNAGE WILL BE INSTALLED AS NEEDED AND FIELD VERIFIED.

9. NOTE: OWNER HAS REQUESTED A BARRIER TO BE PLACED AT THE LIMIT OF RF EXPOSURE IN LIEU OF THE STRIPING. PLEASE SEE PLANS & DETAILS ON SHEET A-8. NO STRIPING WILL BE REQUIRED

NOTICE TO WORKERS

RADIO FREQUENCY ANTENNAS ON THIS ROOF
PLEASE EXERCISE CAUTION AROUND ANTENNAS AND OBEY POSTED SIGNS AND/OR MARKINGS. FOR ACCESS TO RESTRICTED AREAS OR FOR FURTHER INFORMATION, PLEASE CALL 1-800-832-6662 (SITE NUMBER: CNU5388)

IN ACCORDANCE WITH FCC RULES 47 CFR 1.1310

AVISO A TRABAJADORES

EN ESTE TECHO HAY ANTENAS DE RADIOFRECUENCIA. POR FAVOR USE PRECAUCIÓN ALREDEDOR DE LAS ANTENAS Y OBEDEZCA LOS AVISOS Y/O MARCAS PUESTOS. PARA OBTENER ACCESO A LAS ZONAS RESTRINGIDAS O PARA OBTENER MÁS INFORMACIÓN, LLAME AL TELÉFONO 1-800-832-6662 (NUMERO DE SITIO: CNU5388)

DE ACUERDO A LAS REGLAS DE FCC 47 CFR 1.1310

工作人員注意

此屋宇房頂有射頻天線裝置
在天線範圍四周務請小心,並遵照各已張貼之指示及/或標緻行事
如需進入禁區範圍或索取更多資料
請致電 1-800-832-6662 此站區號: CNU5388

依據 FCC條例第47 CFR 1.1310 款執行

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR/CM - SAC WIRELESS
   SUB-CONTRACTOR - PER TRADE
   OWNER - AT&T
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
33. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
34. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
35. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
36. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
37. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
38. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

ANTENNA MOUNTING

39. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
40. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
41. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
42. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
43. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
44. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
45. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
46. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
47. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
48. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
49. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

TORQUE REQUIREMENTS

50. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
51. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
    A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
    B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

FIBER & POWER CABLE MOUNTING

53. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
54. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
55. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

56 - 61. RESERVED FOR ADDITIONAL NOTES.

COAXIAL CABLE NOTES

62. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO
69. CONTRACTOR SHAL
    CABLES, AND RET C
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    AND RECOMMENDA
70. CONTRACTOR TO V
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    WITH NEW SNAP IN

GENERAL CABLE AND E(

71. CONTRACTOR SHALI
    CONFIGURATION, MA
72. ALL CONNECTIONS F
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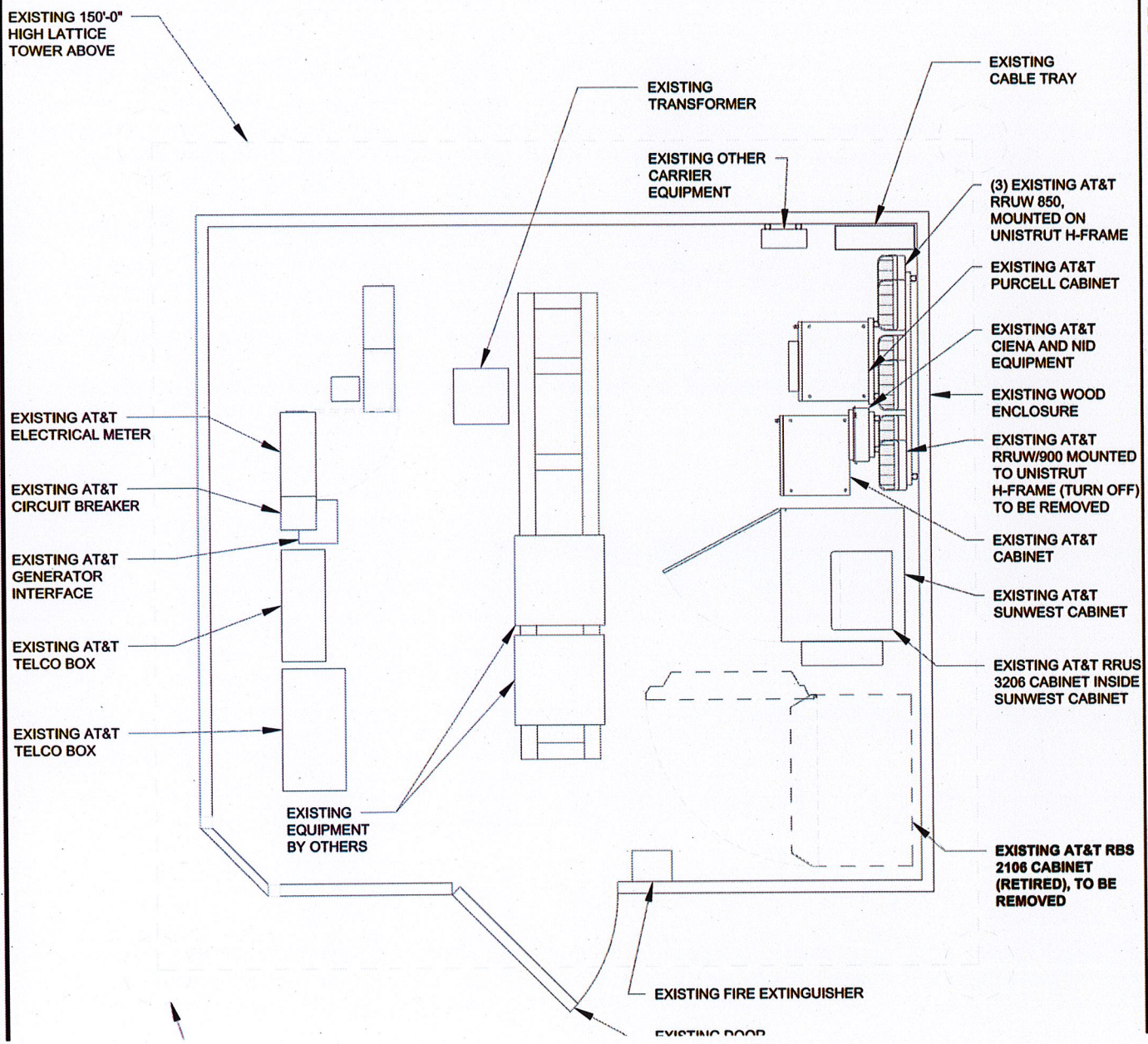
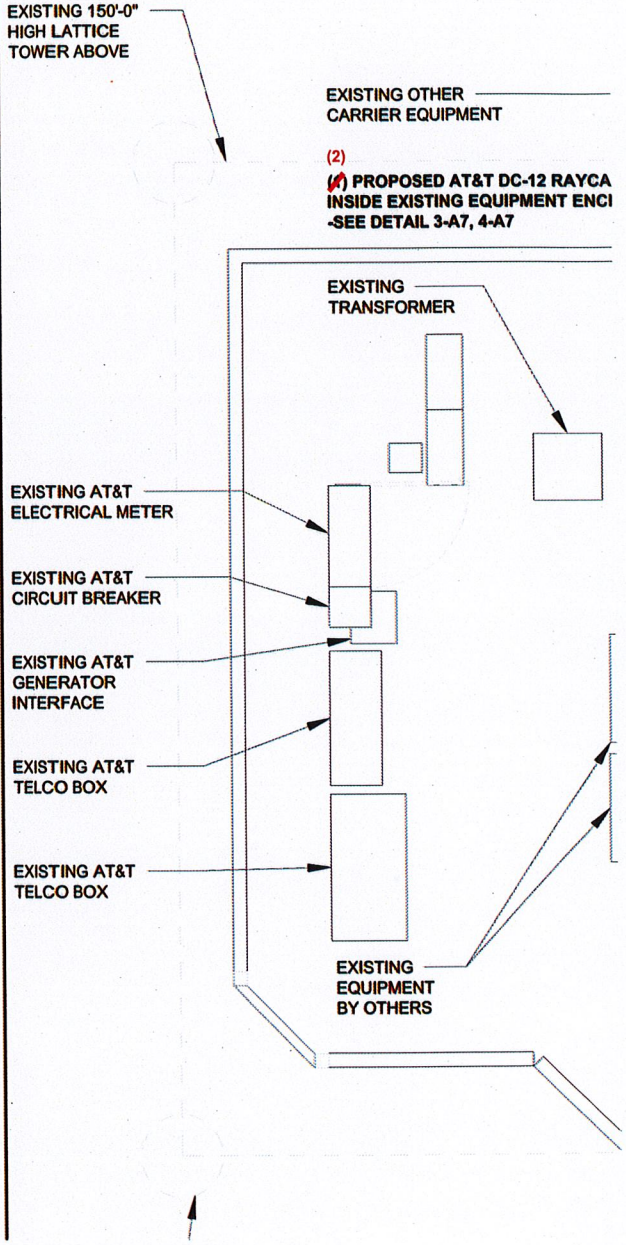
73. CONTRACTOR SHALI
    DIRECTIONS ON CABI
74. ALL OUTDOOR RF CC
    CONNECTORS, USINC
    SHALL HAVE A MINIM
    WRAPPED THREE TIN
    NOT ALLOWED.
75. IF REQUIRED TO PAI
    A. TEMPERATU
    B. PAINT COLO
    C. FOR REGUL/
    D. DO NOT PAIN
76. ALL CABLES SHALL E
    RECOMMENDATIONS
    A. GROUNDING AT TH
    B. GROUNDING AT N
    REQUIRED.
    C. GROUNDING AT BA
    D. GROUNDING OUTS
    E. GROUNDING INSID
77. ALL PROPOSED GRO
    BAR DOWNLEADS A N
    OR COMPRESSION.

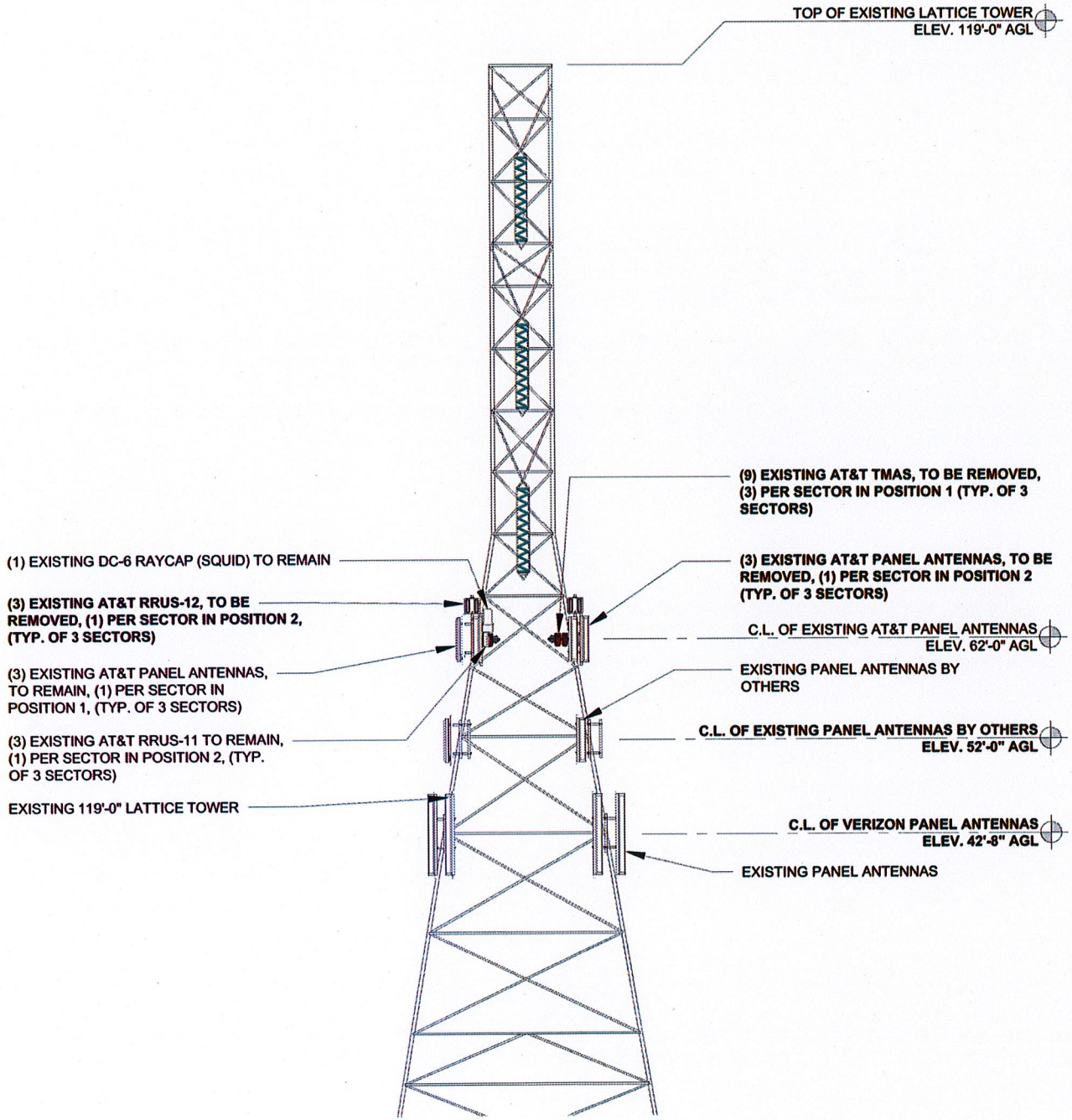
Red Lined / As Built
Date: 5/29/2020,
Signature:

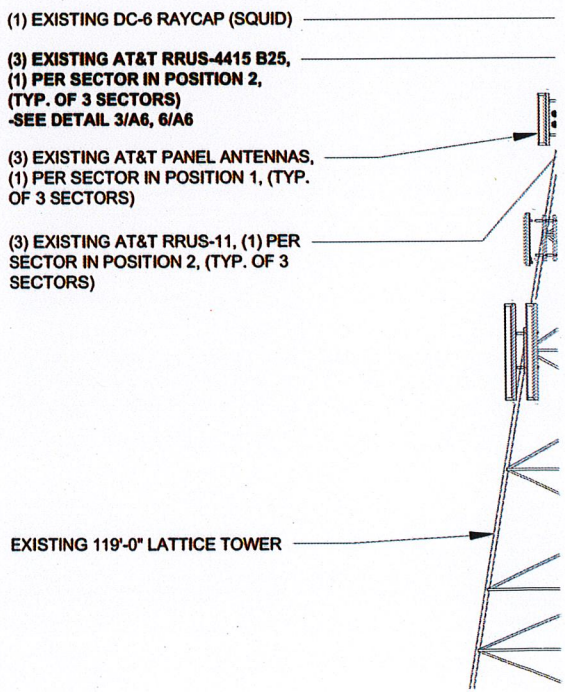




Red Lined / As Built
Date: 5/29/2020,
Signature:

NOTE:
GENERAL CONTRACTOR SHALL MAKE SURE SAFETY CLIMB IS 100% FREE OF COAX AND MOUNTS AFTER INSTALL IS COMPLETE.





Red Lined / As Built
Date: 5/29/2020,
Signature:

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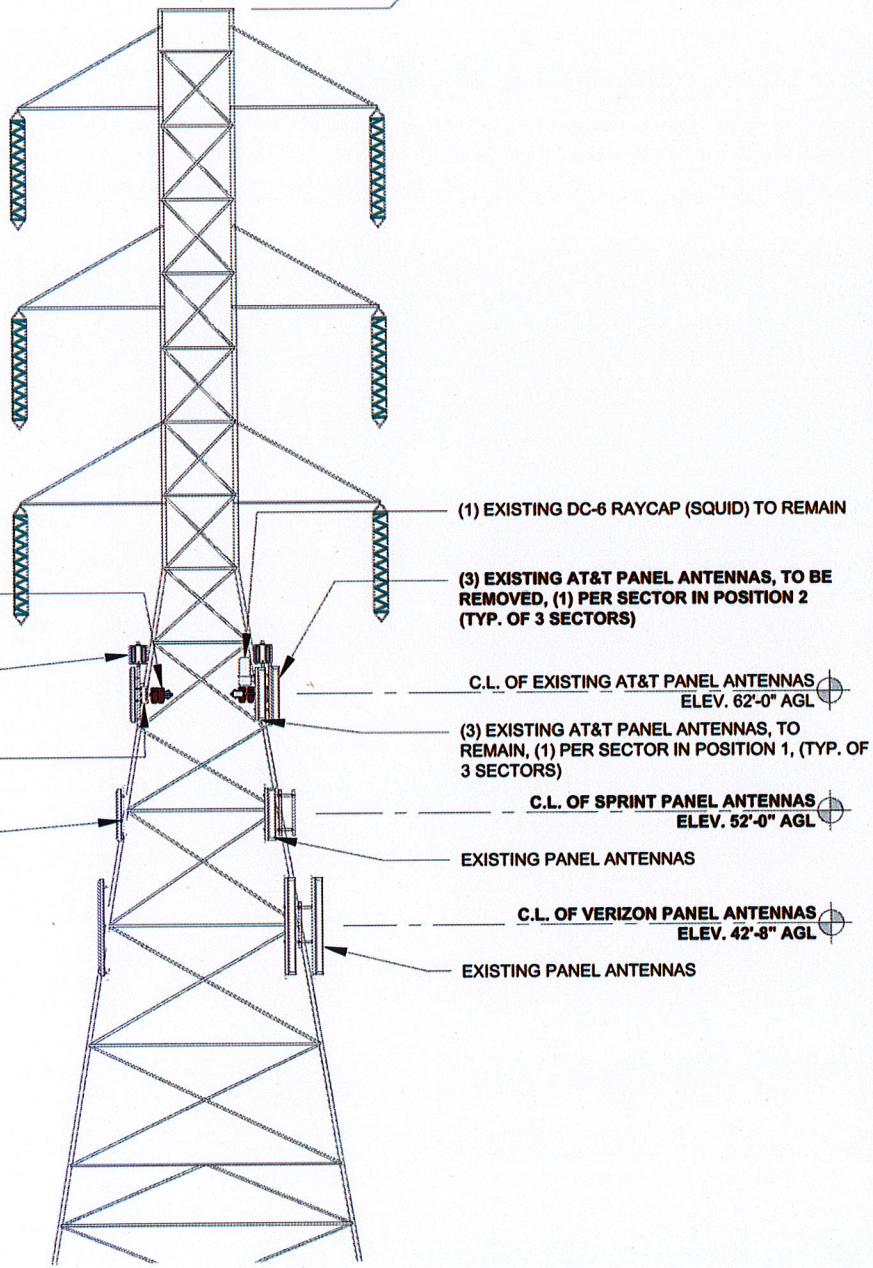

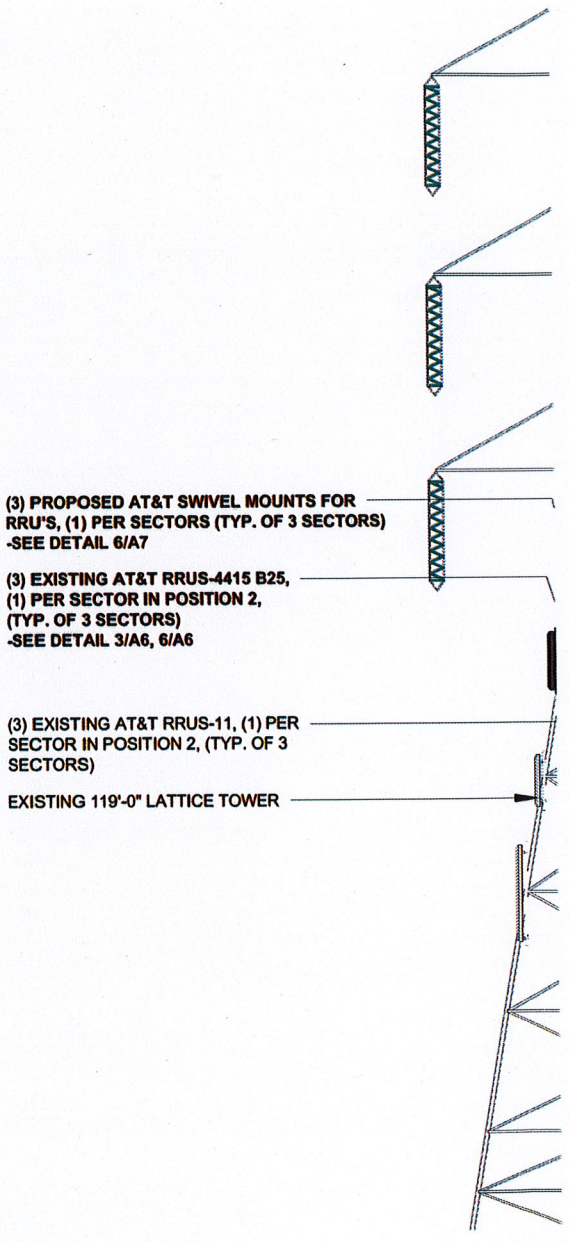

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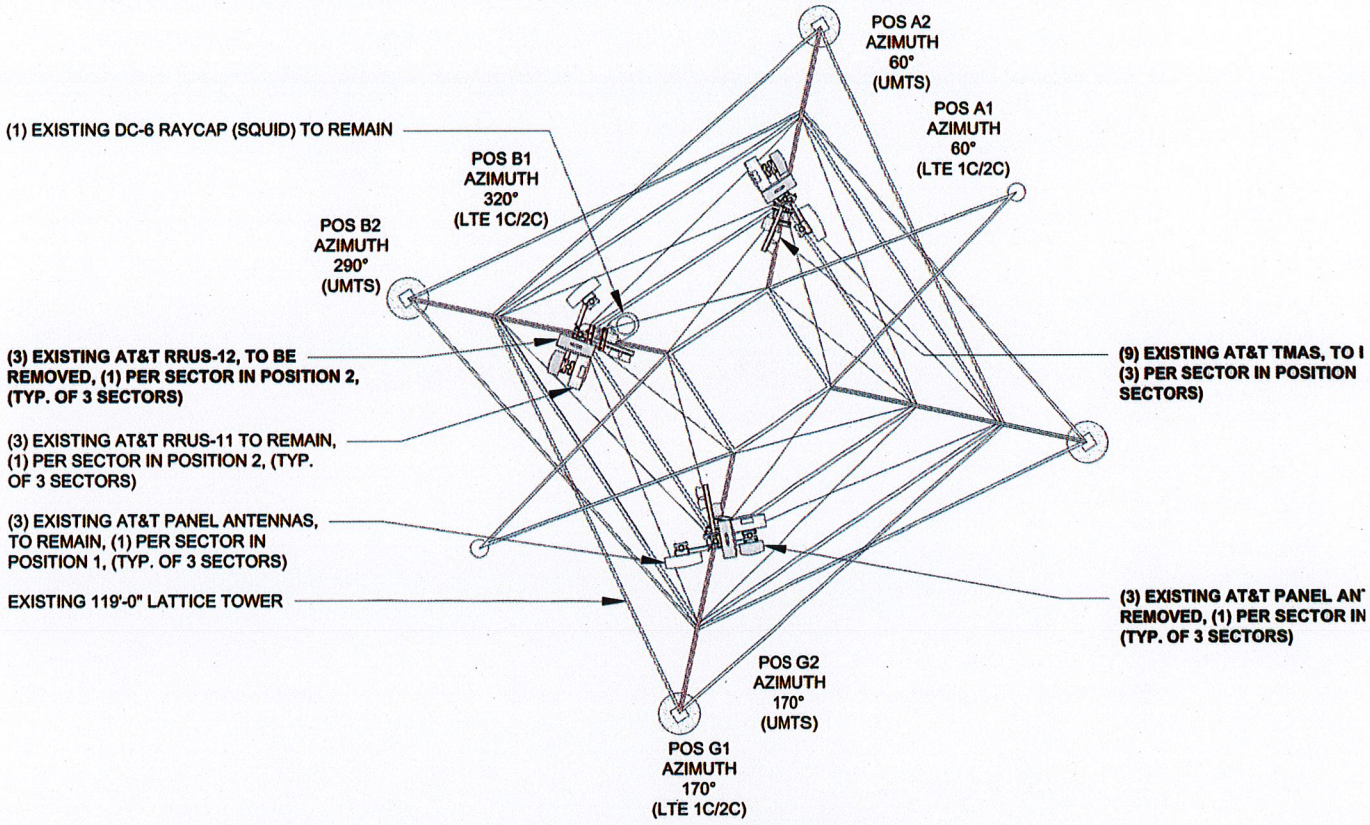
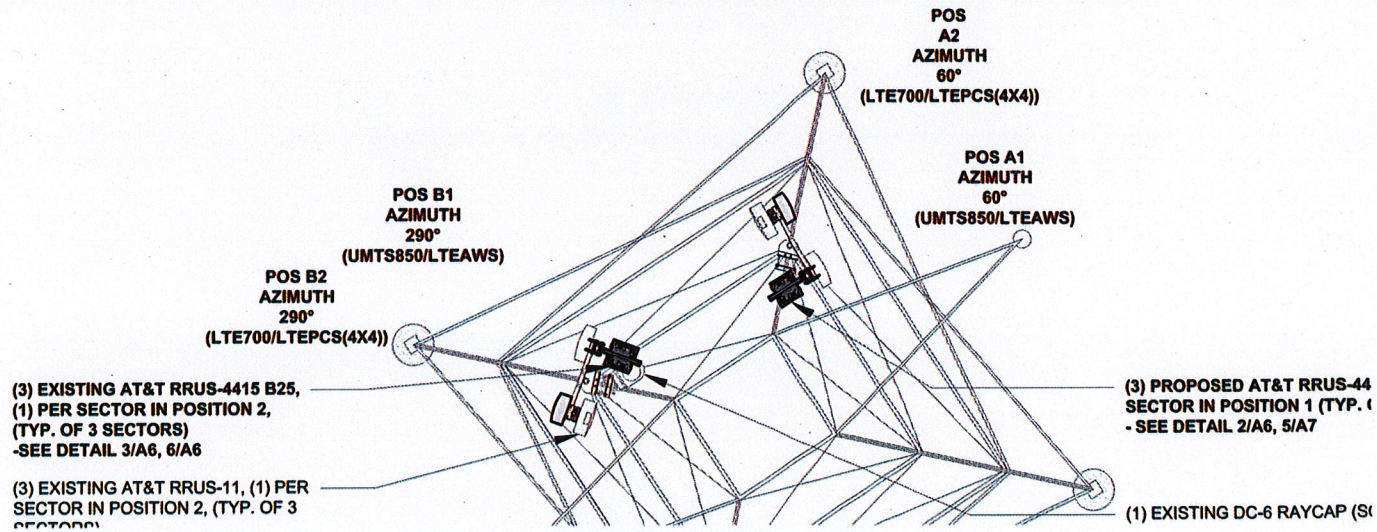
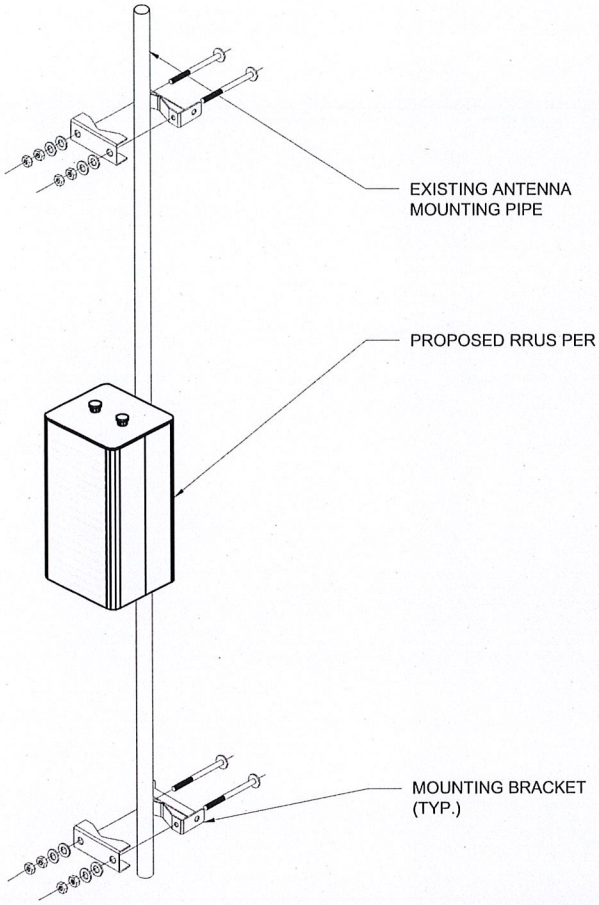
Date: 5/29/2020,
Signature:



EXISTING ANTENNA PLAN



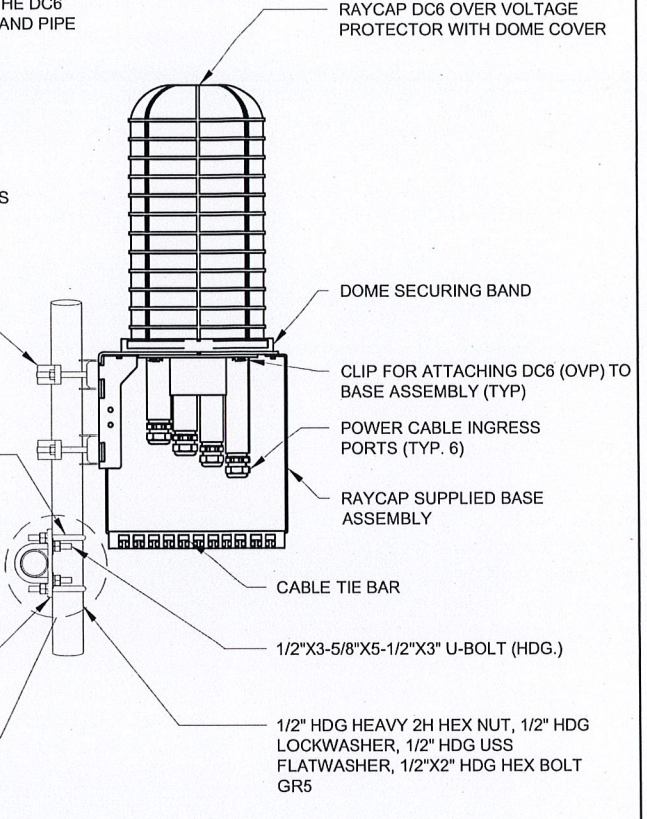


RRU MOUNTING DETAIL

SCALE	6
N.T.S.	

NOTE:
RAYCAP VIA AT&T SUPPLIES THE DC6 OVER VOLATGE PROTECTOR AND PIPE MOUNT BRACKET.

SURGE SUPPRESSOR
COLOR: GRAY
WEIGHT W/MOUNTED BRACKET: >20 LBS

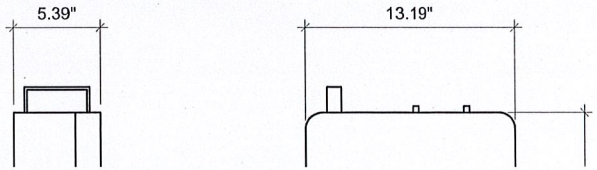


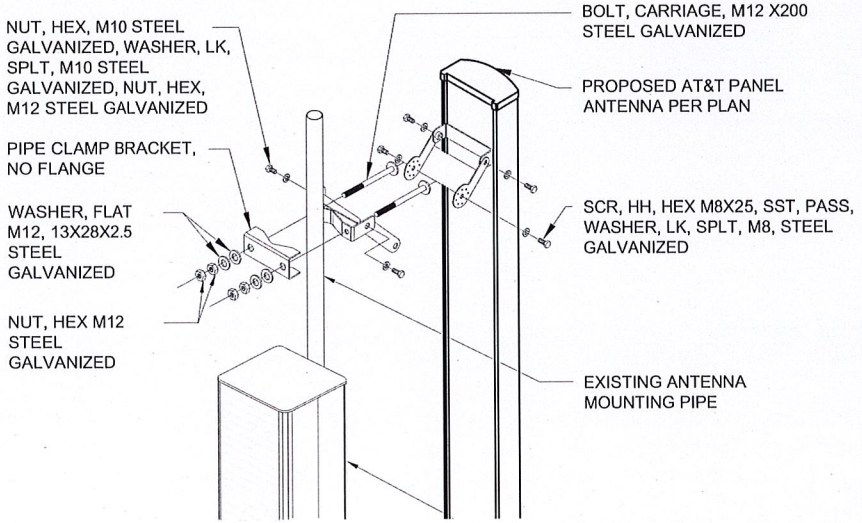
DC-6 RAYCAP (SQUID) DETAIL

SCALE	4
N.T.S.	

ERICSSON RRUS 4415 B25

- DIMENSIONS, HXWXD: 14.96"X13.19"X5.39"
- WEIGHT, WITHOUT MOUNTING KIT: 44 LBS
- FREQUENCY:
  - TX: 1930-1995 MHZ
  - RX: 1850-1915 MHZ
- MAX WIND LOAD: 50M/SEC = 260N
- MIN, MAX DC CABLE: 10 & 8 AWG
- BREAKER SIZE: 25A
- DC POWER CONSUMPTION: 670W
- CPRI 2 PORTS X 2.5/4.9/9.8/10.1 GBPS





ERICSSON

- DIMEN
- WEIGI MOUN
- FREQ TX: RX:
- MAX V
- MIN, M
- BREAI
- DC PC
- CPRI 2

RRUS 4426 I

COMMSCO

DIMENSIOI

WEIGHT, W MOUNTING

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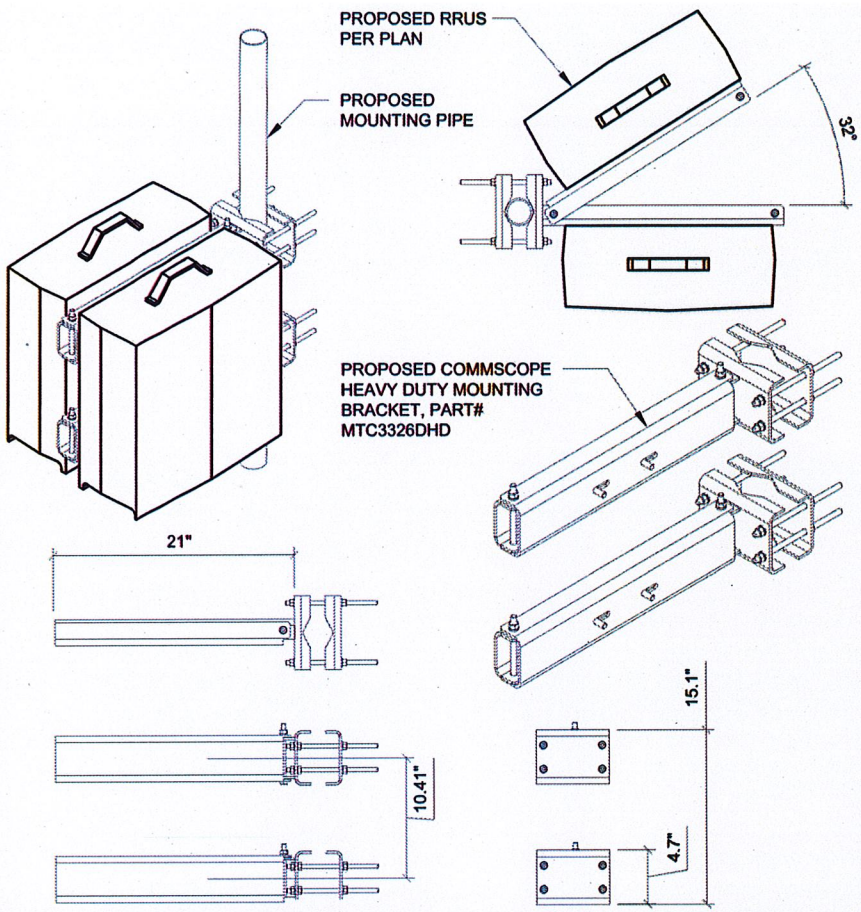
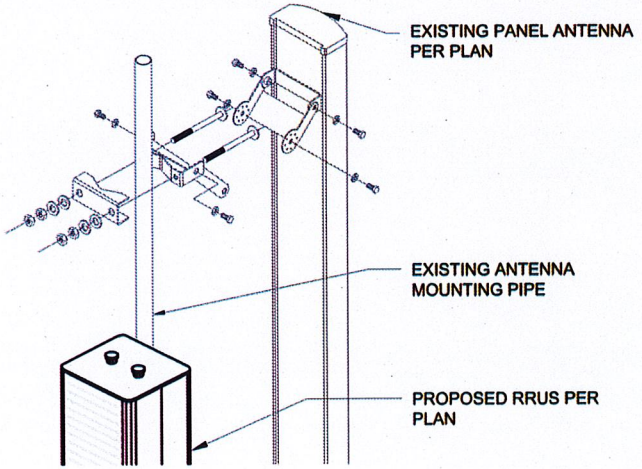
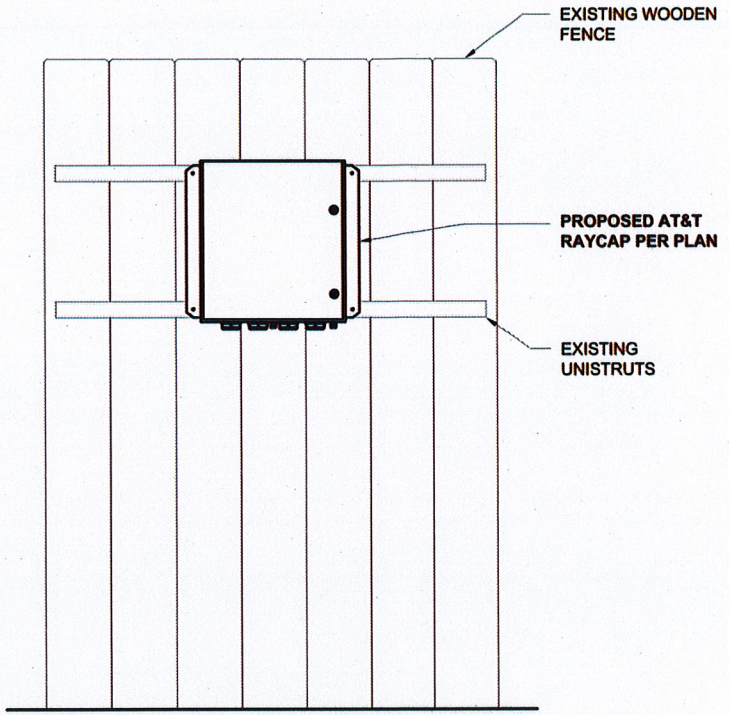


SWIVEL MOUNTS FOR RRUS DETAIL

SCALE N.T.S. | 6



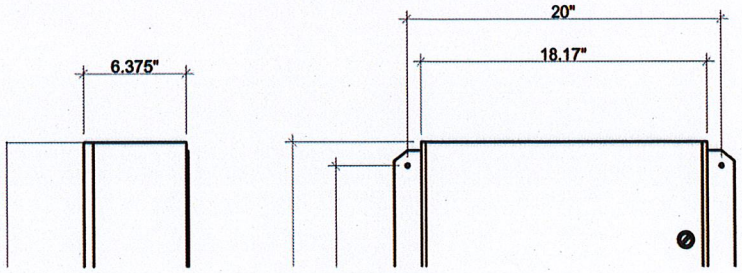


DC-12 RAYCAP MOUNT DETAIL

SCALE N.T.S. | 4

RAYCAP DC12-48-60-0-25E DC SURGE SUPPRESSOR

- DIMENSIONS, HXWXD: 20.06"X18.17"X6.375"
- WEIGHT: ±56.3 LBS (INCLUDES MOUNTING KIT)
- COLOR: LIGHT THAN



MANUFACTURE
MODEL:

WEIGHT:
DIMENSION:
LTE:
(FDD/TDD SUPF

WCDMA:

GSM:

5216 UNIT D

MANUFACTURE
MODEL:

WEIGHT:
HEAT DISSIPAT

OPERATING TE

- MOUNTING
- MOUNTING
  RESTRICTC

Red Lined / As Built
Date: 5/29/2020,
Signature:

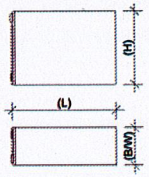
NOT USED

SCALE N.T.S. 5

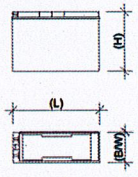
TECHNICAL CHARACTERISTICS AND DATA

TYPE	PART NUMBER	NOM. VOLTAGE V	LEGTH (L) IN.	WIDTH (B/W) IN.	HEIGHT (H) MAX. IN.	WEIGHT APPROX. LBS
M6V200FT	NAMT060200HM0FA	6	14.21"	5.19"	9.84"	74.96
M12V35FT	NAMF120035HM0MA	12	11.02"	4.21"	7.44"	30.86
M12V50FT	NAMF120050HM0MA	12	11.02"	4.21"	9.09"	39.68
M12V60FT	NAMF120060HM0MA	12	11.02"	4.21"	10.35"	50.70
M12V90FT	NAMF120090HM0FA/ NAMF120090VM0FU	12	15.55"	4.13"	10.63"	68.34
M12V105FT	NAMF120105HM0FA/ NAMF120105VM0FU	12	20.12"	4.33"	9.37"	78.92
M12V125FT	NAMF120125HM0FA	12	22"	4.88"	11.14"	104.94
M12V155FT	NAMF120155HM0FA	12	22"	4.88"	11.14"	116.40
M12V190FT	NAMF120190HM0FA	12	22"	4.88"	12.52"	136.687

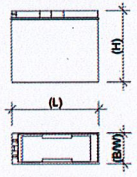
M6V200FT



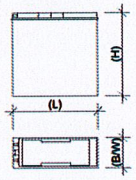
M12V35FT



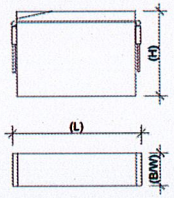
M12V50FT



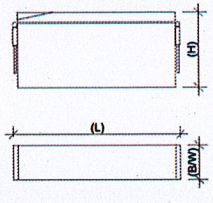
M12V60FT



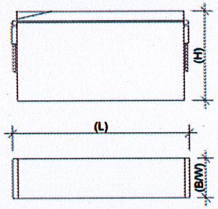
M6V90FT



M12V105FT



M12V125FT - M12V190FT



PROPOSED PER PLAN

(4) 1/2"Ø HIL STAINLESS W 2" MIN. E (SPECIAL IN REQUIRED

BATTERY SPECS & DETAIL

SCALE N.T.S. 3

ANCHORAG

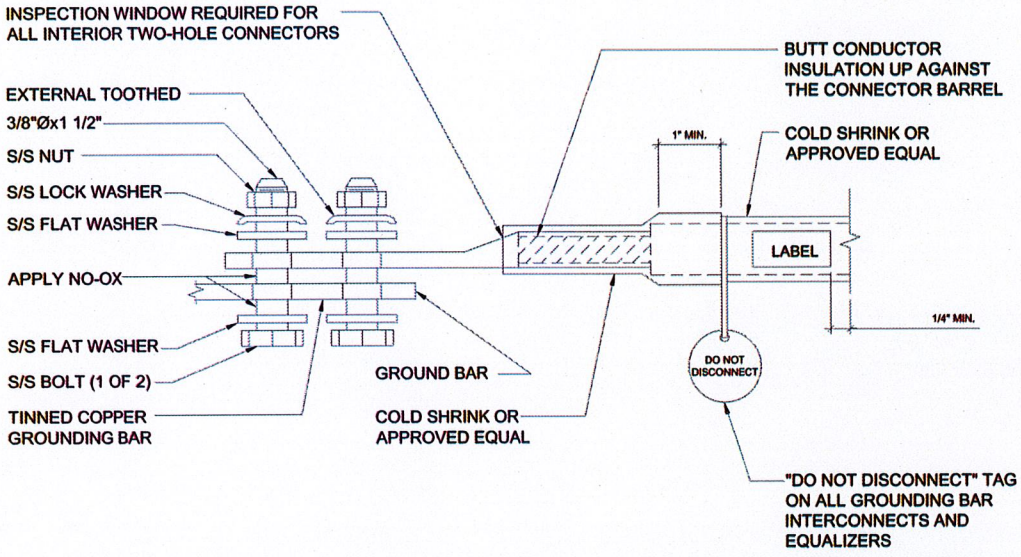
OUTDOOR NETSURE 5212 DC POWER SYSTEM

TECHNICAL SPECIFICATIONS:

- DC POWER SYSTEM FEATURES:
  - NOMINAL SYSTEM VOLTAGE: -48 VDC OR + 24VDC
  - CONTRO: MICROPROCESSOR (ACU+)
  - GROUND BAR: 10 POSITIONS
  - TERMINAL BLOCK: 12-PAIR PHOENIX BLOCK

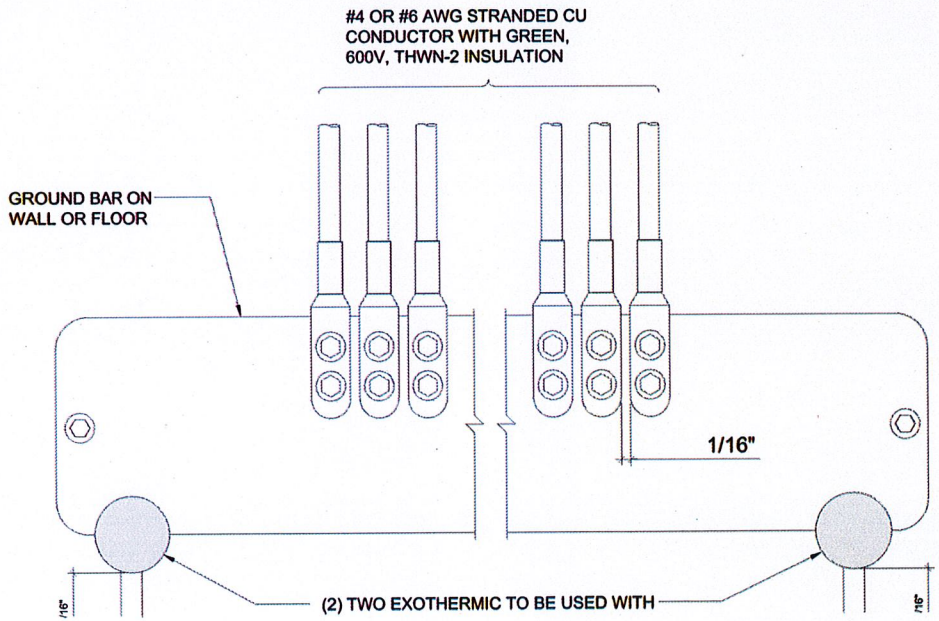
- RATED OUTPUT CAPACITY - MAXIMUM CONFIGURATION:
  - SYSTEM: 525 AMPS AT -48 VDC PLUS REDUNDANCY
    400 AMPS AT +24 VDC PLUS REDUNDANCY
  - RECTIFIER: 2000 WATTS (41.7 A)
  - CONVERTER: 1200 WATTS (50 A), -48 VDC TO +24 VDC
    [MAX CAPACITY (6) -48 V BATTERY STRINGS]
  - DISTRIBUTION PANEL (TOP): WIRED FOR (16) +24 V AND (13) -48 V BULLET POSITION
    (BOTTOM): (30) -48 V BULLET POSITIONS

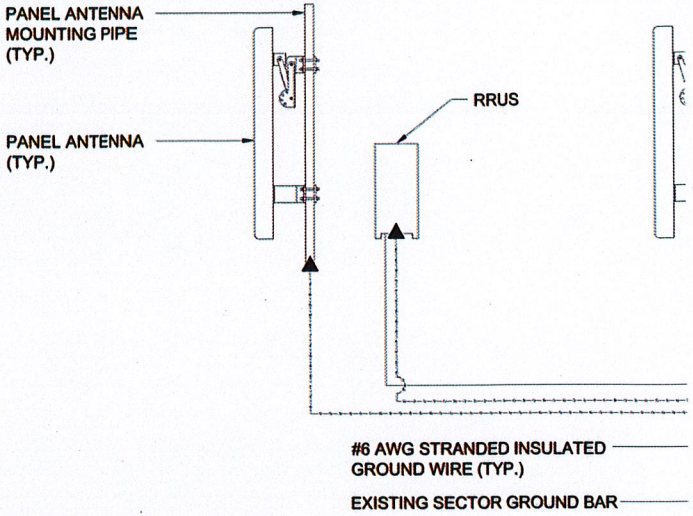
- THERMAL SOLUTIONS:
  - POWER CHAMBER: 2500 WATT DOOR-MOUNTED HEAT EXCHANGER
    2 RU AVAILABLE SPACE FOR SURGE PROTECTION
  - BATTERY CHAMBER: FAN COOLED, FRESH AIR VENTILATION,



EXTERIOR TWO HOLE LUG DETAIL

SCALE	3
N.T.S.	

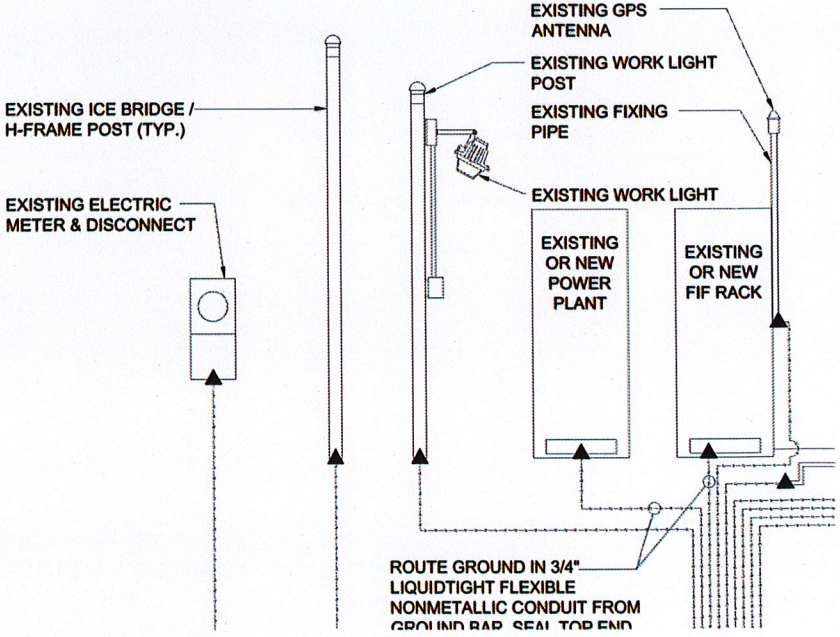




LEGEND

GROUND ROD 5/8"Ø X 10'-0"	⊗
TEST WELL	⊠
NEW GROUND RING	
EXISTING GROUND RING	
STEEL GROUND BAR	
COPPER GROUND BAR	
INTERNAL GROUND BAR	
EXOTHERMIC CONNECTION	●
MECHANICAL CONNECTION	▲
GROUND CONDUCTOR	

Red l
Date: 5/2
Signature



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT E

WATERFORD

Radio Frequency Emissions Compliance Report For AT&T Mobility

Site Name:	**Edgewood - I-280**	**Site Structure Type:**	**Monopole**
Address:	**3001 Edgewood Road**	**Latitude:**	**37.4703089**
	San Carlos, CA 94070	**Longitude:**	**-122.2911319**
Report Date:	**July 11, 2022**	**Project:**	**Modification**

Compliance Statement

Based on information provided by AT&T Mobility and predictive modeling, the Edgewood - I-280 installation proposed by AT&T Mobility will be compliant with Radiofrequency Radiation Exposure Limits of 47 C.F.R. §§ 1.1307(b)(3) and 1.1310. RF alerting signage at the base of the Monopole and restricting access to authorized climbers that have completed RF safety training is required for Occupational environment compliance. The proposed operation will not expose members of the General Public to hazardous levels of RF energy at ground level or in adjacent buildings.

Certification

I, David C. Cotton, Jr., am the reviewer and approver of this report and am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC's OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

REGISTERED PROFESSIONAL ENGINEER
DAVID CHARLES COTTON, JR.
NO. 18838
2022-Jul-11
ELECTRICAL
STATE OF CALIFORNIA

David Charles Cotton, Jr.
Registered Professional Engineer (Electrica
State of California, 18838

General Summary

The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure ("MPE") limits. At any location at this site, the power density resulting from each transmitter may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, the FCC General Population limit is considered to be a level that is safe for continuous exposure time. The FCC General Population limit is 5 times more restrictive than the Occupational limits.

In situations where the predicted MPE exceeds the General Population threshold in an accessible area as a result of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

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Table 1: FCC Limits

Frequency (MHz)	*Limits for General Population/ Uncontrolled Exposure*		*Limits for Occupational/ Controlled Exposure*	
	Power Density (mW/cm^2)	Averaging Time (minutes)	Power Density (mW/cm^2)	Averaging Time (minutes)
30-300	0.2	30	1	6
300-1500	f/1500	30	f/300	6
1500-100,000	1.0	30	5.0	6

f=Frequency (MHz)

Based on the computational guidelines set forth in FCC OET Bulletin 65, Waterford Consultants, LLC has developed software to predict the overall Maximum Permissible Exposure possible at any location given the spatial orientation and operating parameters of multiple RF sources. The power density in the Far Field of an RF source is specified by OET-65 Equation 5 as follows:

$$S = \frac{EIRP}{4 \cdot \pi \cdot R^2} \ (\mathrm{mW/cm^2})$$

where EIRP is the Effective Radiated Power relative to an isotropic antenna and R is the distance between the antenna and point of study. Additionally, consideration is given to the manufacturers' horizontal and vertical antenna patterns as well as radiation reflection. At any location, the predicted power density in the Far Field is the spatial average of points within a 0 to 6-foot vertical profile that a person would occupy. Near field power density is based on OET-65 Equation 20 stated as

$$S = \left(\frac{180}{\theta_{BW}}\right) \cdot \frac{100 \cdot P_{in}}{\pi \cdot R \cdot h} \ (\mathrm{mW/cm^2})$$

where P_{in} is the power input to the antenna, θ_{BW} is the horizontal pattern beamwidth and h is the aperture length.

Some antennas employ beamforming technology where RF energy allocated to each customer device is dynamically directed toward their location. This analysis includes a statistical factor reducing the actual power of the antenna system to 32% of maximum theoretical power to account for spatial distribution of users, network utilization, time division duplexing, and scheduling time. AT&T recommends the use of this factor based on a combination of guidance from its antenna system manufacturers, supporting international industry standards, industry publications, and its extensive experience.

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Analysis

AT&T Mobility proposes the following installation at this location:

- REMOVE (3) EXISTING AT&T PANEL ANTENNAS IN POSITION 2 (TYP. OF 3 SECTORS) REMOVE (3) EXISTING AT&T
- RRUS-12 IN POSITION 2 (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T LTE700/LTEPCS(4X4) PANEL ANTENNAS IN POSITION (2) (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T RRUS4415 B25 IN POSITION 2 (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T RRUS4426 B66 IN POSITION 1 (TYP. OF 3 SECTORS) INSTALL (3) PROPOSED AT&T

The antennas will be mounted on a 119-foot Monopole with centerlines 62 & 23 feet above ground level. Proposed antenna operating parameters are listed in Appendix A. Other appurtenances such as GPS antennas, RRUs and hybrid cable below the antennas are not sources of RF emissions. Panel antennas have been installed at this site by other wireless operators. Operating parameters for these antennas considered in this analysis are also listed in Appendix A.

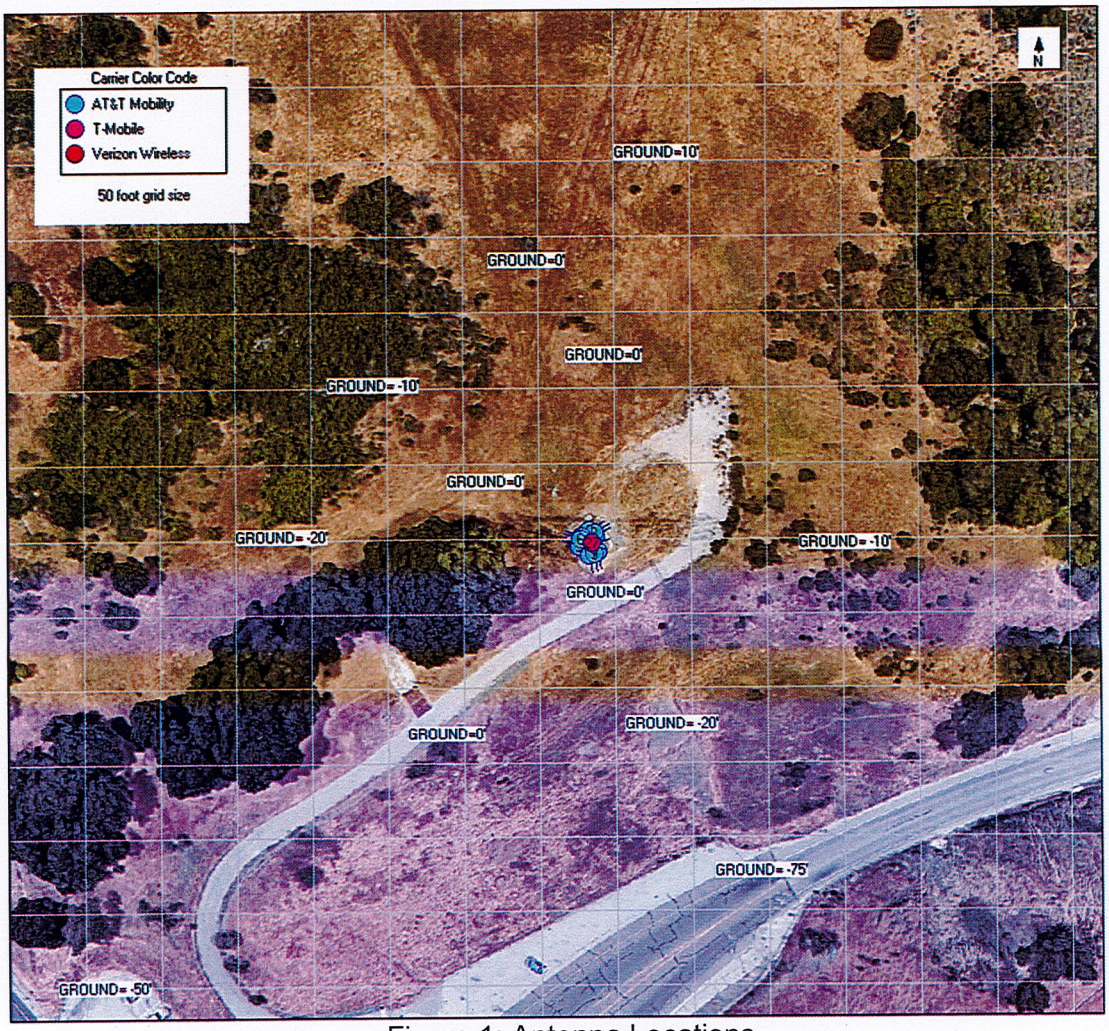

Figure 1: Antenna Locations

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Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serves to reduce the potential to exceed MPE limits at any location other than directly in front of the antennas. For accessible areas at ground level, the maximum predicted power density level resulting from all AT&T Mobility operations is 14.0981% of the FCC General Population limits. Based on the operating parameters in Appendix A, the cumulative power density level at this location from all antennas is 43.1345% of the FCC General Population limits. There are no apparent inhabited buildings or structures in the immediate area as depicted in Figure 1. Based on the operating parameters in Appendix A, the cumulative power density level at this location from all antennas is 0% of the FCC General Population limits. The proposed operation will not expose members of the General Public to hazardous levels of RF energy at ground level or in adjacent buildings.

Waterford Consultants, LLC recommends posting RF alerting signage with contact information (Caution 2B) at the base of the Monopole to inform authorized climbers of potential conditions near the antennas. These recommendations are depicted in Figure 2.

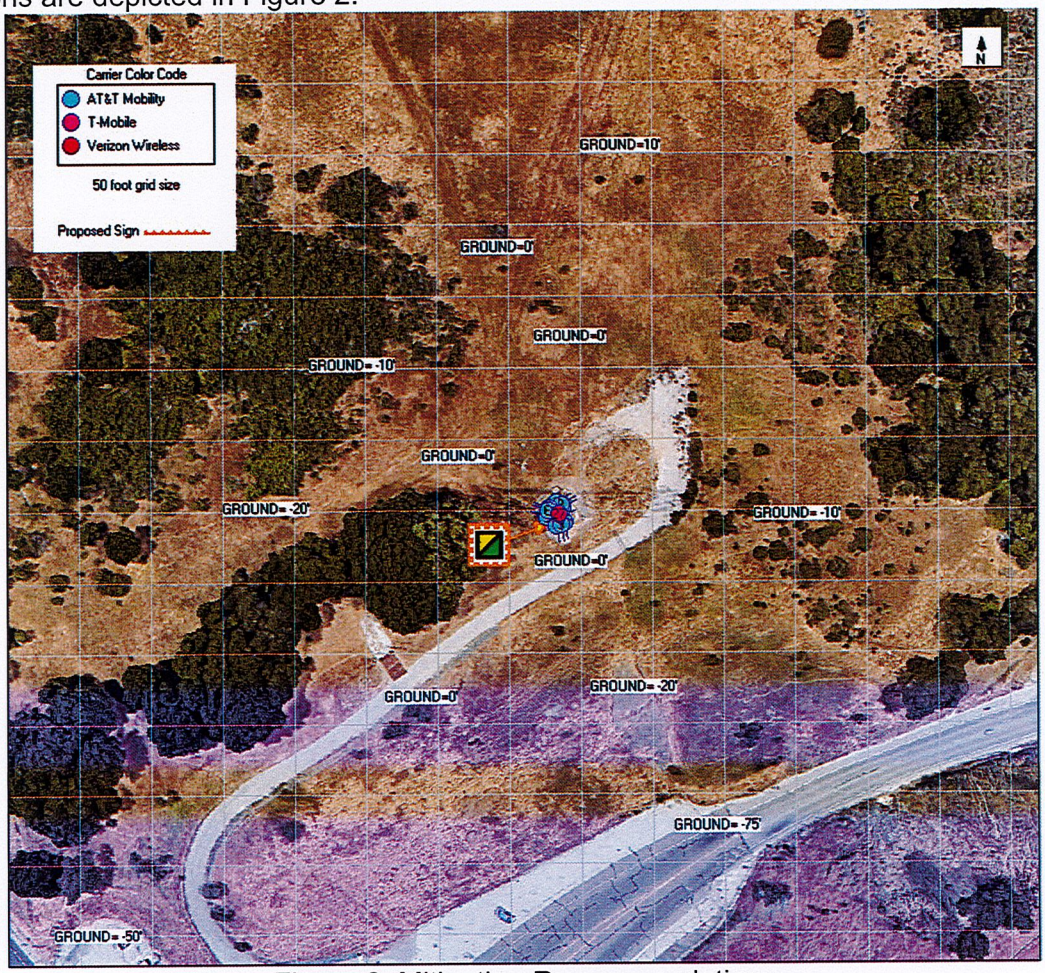

Figure 2: Mitigation Recommendations

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Appendix A: Operating Parameters Considered in this Analysis

Antenna #:	Carrier:	Manufacturer	Pattern:	Band (MHz):	Mech Az (deg):	Mech DT (deg):	H BW (deg):	Length (ft):	TPO (W):	Channels:	Loss (dB):	Gain (dBd):	ERP (W):	EIRP (W):	Rad Center (ft):
1	AT&T	QUINTEL	QD4616-7 V1 02DT	700	60	0	65	4.3	40	4	0	10.8712	1955	3208	62.0
1	AT&T	QUINTEL	QD4616-7 V1 02DT	850	60	0	61	4.3	60	2	0	10.6771	1402	2301	62.0
1	AT&T	QUINTEL	QD4616-7 V1 00DT	1900	60	0	61	4.3	40	4	0	14.3071	4314	7077	62.0
1	AT&T	QUINTEL	QD4616-7 V1 00DT	2300	60	0	51	4.3	25	4	0	15.5103	3557	5835	62.0
1	AT&T	QUINTEL	QD4616-7 V1 02DT	700	60	0	65	4.3	40	2	0	10.8712	978	1604	62.0
2	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	700	60	0	75	4.9	40	4	0	10.56	1820	2986	62.0
2	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	850	60	0	68	4.9	40	4	0	11.22	2119	3476	62.0
2	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	2100	60	0	64	4.9	40	4	0	14.94	4990	8187	62.0
3	AT&T	Ericsson	SON_AIR6449 NR TB 05.17.21 3700 AT&T	3700	60	0	11.7	2.8	108.4	1	0	23.45	23990	39358	23.0
4	AT&T	QUINTEL	QD4616-7 V1 02DT	700	290	0	65	4.3	40	4	0	10.8712	1955	3208	62.0
4	AT&T	QUINTEL	QD4616-7 V1 02DT	850	290	0	61	4.3	60	2	0	10.6771	1402	2301	62.0
4	AT&T	QUINTEL	QD4616-7 V1 00DT	1900	290	0	61	4.3	40	4	0	14.3071	4314	7077	62.0
4	AT&T	QUINTEL	QD4616-7 V1 00DT	2300	290	0	51	4.3	25	4	0	15.5103	3557	5835	62.0
4	AT&T	QUINTEL	QD4616-7 V1 02DT	700	290	0	65	4.3	40	2	0	10.8712	978	1604	62.0
5	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	700	290	0	75	4.9	40	4	0	10.56	1820	2986	62.0
5	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	850	290	0	68	4.9	40	4	0	11.22	2119	3476	62.0
5	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	2100	290	0	64	4.9	40	4	0	14.94	4990	8187	62.0
6	AT&T	Ericsson	SON_AIR6449 NR TB 05.17.21 3700 AT&T	3700	290	0	11.7	2.8	108.4	1	0	23.45	23990	39358	23.0
7	AT&T	QUINTEL	QD4616-7 V1 02DT	700	170	0	65	4.3	40	4	0	10.8712	1955	3208	62.0
7	AT&T	QUINTEL	QD4616-7 V1 02DT	850	170	0	61	4.3	60	2	0	10.6771	1402	2301	62.0
7	AT&T	QUINTEL	QD4616-7 V1 00DT	1900	170	0	61	4.3	40	4	0	14.3071	4314	7077	62.0
7	AT&T	QUINTEL	QD4616-7 V1 00DT	2300	170	0	51	4.3	25	4	0	15.5103	3557	5835	62.0
7	AT&T	QUINTEL	QD4616-7 V1 02DT	700	170	0	65	4.3	40	2	0	10.8712	978	1604	62.0
8	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	700	170	0	75	4.9	40	4	0	10.56	1820	2986	62.0
8	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	850	170	0	68	4.9	40	4	0	11.22	2119	3476	62.0
8	AT&T	COMMSCOPE	NNH4-65A-R6H4 02DT	2100	170	0	64	4.9	40	4	0	14.94	4990	8187	62.0
9	AT&T	Ericsson	SON_AIR6449 NR TB 05.17.21 3700 AT&T	3700	170	0	11.7	2.8	108.4	1	0	23.45	23990	39358	23.0
10	Verizon	QUINTEL	QS8656-5 02DT	700	80	3	61	8	40	2	0	13.15	1652	2711	39.0
10	Verizon	QUINTEL	QS8656-5 02DT	850	80	3	58	8	40	2	0	13.35	1730	2839	39.0
10	Verizon	QUINTEL	QS8656-5 02DT	1900	80	3	65	8	20	4	0	15.05	2559	4198	39.0
11	Verizon	QUINTEL	QS8656-5 02DT	700	80	3	61	8	40	2	0	13.15	1652	2711	39.0
11	Verizon	QUINTEL	QS8656-5 02DT	850	80	3	58	8	40	2	0	13.35	1730	2839	39.0
11	Verizon	QUINTEL	QS8656-5 02DT	2100	80	3	61	8	40	4	0	15.45	5612	9207	39.0
11	Verizon	QUINTEL	QS8656-5 02DT	2100	80	3	61	8	20	4	0	15.45	2806	4604	39.0
12	Verizon	ERICSSON	KRE105281-1	3500	80	0	64	0.7	5	4	0	9.36	173	283	42.6
13	Verizon	ERICSSON	SON_AIR6449 NR TB 03.24.21 3700 VZW	3700	80	0	11	2.8	320	1	0	23.55	72469	118891	45.6
14	Verizon	QUINTEL	QS8656-5 02DT	700	170	0	61	8	40	2	0	13.15	1652	2711	39.0
14	Verizon	QUINTEL	QS8656-5 02DT	850	170	0	58	8	40	2	0	13.35	1730	2839	39.0
14	Verizon	QUINTEL	QS8656-5 02DT	1900	170	0	65	8	20	4	0	15.05	2559	4198	39.0
15	Verizon	QUINTEL	QS8656-5 02DT	700	170	0	61	8	40	2	0	13.15	1652	2711	39.0

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Antenna #:	Carrier:	Manufacturer	Pattern:	Band (MHz):	Mech Az (deg):	Mech DT (deg):	H BW (deg):	Length (ft):	TPO (W):	Channels:	Loss (dB):	Gain (dBd):	ERP (W):	EIRP (W):	Rad Center (ft):
15	Verizon	QUINTEL	QS8656-5 02DT	850	170	0	58	8	40	2	0	13.35	1730	2839	39.0
15	Verizon	QUINTEL	QS8656-5 02DT	2100	170	0	61	8	40	4	0	15.45	5612	9207	39.0
15	Verizon	QUINTEL	QS8656-5 02DT	2100	170	0	61	8	20	4	0	15.45	2806	4604	39.0
16	Verizon	ERICSSON	KRE105281-1	3500	170	0	64	0.7	5	4	0	9.36	173	283	44.5
17	Verizon	ERICSSON	SON_AIR6449 NR TB 03.24.21 3700 VZW	3700	170	0	11	2.8	320	1	0	23.55	72469	118891	47.5
18	Verizon	QUINTEL	QS8656-5 02DT	700	310	0	61	8	40	2	0	13.15	1652	2711	39.0
18	Verizon	QUINTEL	QS8656-5 02DT	850	310	0	58	8	40	2	0	13.35	1730	2839	39.0
18	Verizon	QUINTEL	QS8656-5 02DT	1900	310	0	65	8	20	4	0	15.05	2559	4198	39.0
19	Verizon	QUINTEL	QS8656-5 02DT	700	310	0	61	8	40	2	0	13.15	1652	2711	39.0
19	Verizon	QUINTEL	QS8656-5 02DT	850	310	0	58	8	40	2	0	13.35	1730	2839	39.0
19	Verizon	QUINTEL	QS8656-5 02DT	2100	310	0	61	8	40	4	0	15.45	5612	9207	39.0
19	Verizon	QUINTEL	QS8656-5 02DT	2100	310	0	61	8	20	4	0	15.45	2806	4604	39.0
20	Verizon	ERICSSON	KRE105281-1	3500	310	0	64	0.7	5	4	0	9.36	173	283	42.6
21	Verizon	ERICSSON	SON_AIR6449 NR TB 03.24.21 3700 VZW	3700	310	0	11	2.8	320	1	0	23.55	72469	118891	45.6
22	T-Mobile	COMMSCOPE	F-65C-R1 02DT	600	0	0	60	8	30	4	0	13.6	2730	4479	52.1
22	T-Mobile	AMPHENOL	HEX336CW0000x-T00	700	0	0	36	6.1	30	2	0	13.7	1407	2308	52.1
23	T-Mobile	AMPHENOL	HEX336CW0000x-T00	1900	0	0	33	6.1	40	2	0	16.4	3492	5729	52.1
23	T-Mobile	AMPHENOL	HEX336CW0000x-T00	2100	0	0	34	6.1	40	2	0	16.7	3742	6139	52.1
24	T-Mobile	COMMSCOPE	F-65C-R1 02DT	600	120	0	60	8	30	4	0	13.6	2730	4479	52.1
24	T-Mobile	AMPHENOL	HEX336CW0000x-T00	700	120	0	36	6.1	30	2	0	13.7	1407	2308	52.1
25	T-Mobile	AMPHENOL	HEX336CW0000x-T00	1900	120	0	33	6.1	40	2	0	16.4	3492	5729	52.1
25	T-Mobile	AMPHENOL	HEX336CW0000x-T00	2100	120	0	34	6.1	40	2	0	16.7	3742	6139	52.1
26	T-Mobile	COMMSCOPE	F-65C-R1 02DT	600	240	0	60	8	30	4	0	13.6	2730	4479	52.1
26	T-Mobile	AMPHENOL	HEX336CW0000x-T00	700	240	0	36	6.1	30	2	0	13.7	1407	2308	52.1
27	T-Mobile	AMPHENOL	HEX336CW0000x-T00	1900	240	0	33	6.1	40	2	0	16.4	3492	5729	52.1
27	T-Mobile	AMPHENOL	HEX336CW0000x-T00	2100	240	0	34	6.1	40	2	0	16.7	3742	6139	52.1

Notes: Table depicts recommended operating parameters for AT&T Mobility proposed operations. *Co-located antenna parameters based on industry standards.*

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COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT F

Attachment A

County of San Mateo
Planning and Building Department

FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2004-00106 Hearing Date: May 23, 2012

Prepared By: Summer Burlison
Project Planner

Adopted By: Planning Commission

FINDINGS

Regarding the Negative Declaration, Found:

1. That the Negative Declaration is complete, correct and adequate, and prepared in accordance with the California Environmental Quality Act and applicable State and County Guidelines.

2. That, on the basis of the Initial Study, comments received hereto, and testimony presented and considered at the public hearing, there is no substantial evidence that the project will have a significant effect on the environment.

3. That the Negative Declaration reflects the independent judgment of San Mateo County.

4. That the mitigation measures in the Negative Declaration and agreed to by the owner and placed as conditions on the project have been incorporated into the Mitigation Monitoring and Reporting Plan in conformance with the California Public Resources Code Section 21081.6.

Regarding the Use Permit, Found:

5. That the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, be detrimental to the public welfare or injurious to property or improvements in said neighborhood, since the proposed amendment will not exceed FCC public exposure limits. Furthermore, the site will continue to require only minimal routine service visits of the otherwise non-staffed facility, no additional traffic will be generated, and the amendment will not intensify the use of the property.

6. That the project is necessary for the public health, safety, convenience or welfare by enhancing and increasing the capacity and network coverage to the surrounding area to accommodate the growing demand from private citizens and public agencies, including emergency services. Furthermore, there is no evidence to suggest that the operation or proposed modification to this facility has or would cause a detriment to the public health or safety. In addition, the benefits provided by the added cellular coverage will outweigh any impact caused by the over-height antennas.

7. That the use permit to exceed the height limitations of the zoning district, as requested by the applicant, is necessary in order to reach the objective coverage area.

Regarding the Architectural Review, Found:

8. That the proposed project is in compliance with the architectural design standards for the Junipero Serra (I-280) State Scenic Corridor, as evidenced by compliance with the applicable Genera Plan Visual Quality Policies related to promoting good design, site relationship and aesthetic considerations to minimize the appearance of utilities in scenic corridors. The scale of AT&T's proposed modifications, in context with the PG&E tower and surrounding area, distance from public viewpoints along Edgewood Road and Interstate 280, and equipment mounting height on the tower, the proposed project will not create a significant visual impact or change to the scenic corridor.

CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials approved by the Planning Commission on May 23, 2012. Minor modifications to the project may be approved by the Community Development Director if they are consistent with the intent of and in substantial conformance with this approval.

2. The use permit shall be valid for ten (10) years from the date of final approval, and shall expire on May 23, 2022. Renewal of this permit shall be applied for six (6) months prior to expiration to the Planning and Building Department and shall be accompanied by the renewal application and fees applicable at that time.

3. Any change in use or intensity not already approved shall require an amendment to the use permit. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

4. If a less visually obtrusive/reduced antenna technology becomes available for use during the life of this project, the applicant shall present a redesign incorporating this technology into the project for review by the Community Development Director, and any parties that have expressed an interest. This installation shall be removed in its entirety at that time when this technology becomes obsolete or this facility is no longer needed.

5. The applicant shall maintain all necessary licenses and registrations from the Federal Communications Commission (FCC) and any other applicable regulatory bodies for the operation of the subject facility at this site. The applicant shall supply the Planning Department with evidence of such licenses and registrations. If any required license is ever revoked, the applicant shall inform the Planning Department of the revocation within ten (10) days of receiving notice of such revocation.

6. The applicant shall not enter into a contract with the landowner or lessee which reserves for one company exclusive use of the tower structure or the site for telecommunication facilities.

7. This facility and all equipment associated with it shall be removed in its entirety by the applicant within ninety (90) days if the FCC license and registration are revoked or if the facility is abandoned or no longer needed. The owner and/or operator of the facility shall notify the Planning Department upon abandonment of the facility.

8. There shall be no external lighting associated with this use. Wireless telecommunication facilities shall not be lighted or marked unless required by the FCC or Federal Aviation Administration (FAA).

9. All construction activities associated with the proposed project shall be limited to 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction activities will be prohibited on Sunday and any nationally observed holiday. Noise levels produced by construction activities shall not exceed 80-dBA at any one moment.

10. This approved installation is to be dismantled and removed in its entirety from the property at that time when this technology becomes obsolete or this facility is no longer needed.

11. The applicant shall maintain the equipment enclosure fencing in good condition and perform repairs as necessary to serve its function as a screening device for the equipment cabinets. Any repairs and/or maintenance to the fence shall be of like color and materials.

12. Prior to the issuance of a building permit, the applicant shall submit color samples for the antennas and equipment. The antennas and all associated tower-mounted equipment shall be painted gray to match the existing PG&E tower and the GPS antenna shall be painted to match the fence and/or surrounding environment. Furthermore, all associated facility equipment shall be of non-reflective materials and/or colors. Paint colors shall be subject to the review and approval by the Community Development Director. The applicant shall submit photos to the Current Planning Section for color verification after the applicant has painted the antennas and equipment the approved colors, but before a final building inspection is scheduled.

13. A building permit shall be issued prior to the start of any construction work associated with this amendment approval.

14. Any necessary utilities leading to, or associated with, the facility shall be placed underground.

15. Any future modifications to the approved facility or amendments to the use permit for this facility shall require written authorization from the Midpeninsula Regional Open Space District.

16. Appropriate signs shall be posted at the base of the tower climbing ladder to warn workers at the site of the potential risks of RF exposure, as required by EBI Consulting. The applicant shall submit photos to the Current Planning Section for verification after the required signage has been posted, but before a final building inspection is scheduled.

17. This permit does not allow for the removal of any trees. Removal of any tree with a diameter equal to or greater than 12 inches as measured 4.5 feet above the ground shall require a separate tree removal permit.

18. The applicant shall submit the following to the Current Planning Section: Within four (4) working days of the final approval date of this permit, the applicant shall pay an environmental filing fee of $2,101.50, as required under Fish and Game Code Section 711.4, plus a $50.00 recording fee. Thus, the applicant shall submit a check in the total amount of $2,151.50, made payable to San Mateo County, to the project planner to file with the Notice of Determination.

Building Inspection Section

19. The applicant shall apply for and obtain a building permit prior to any construction activity related to this project approval.

San Mateo County Fire Department

20. Portable fire extinguishers with a minimum rating of 2A-10BC are required to be placed throughout your project. Contact a licensed/certified fire extinguisher company for proper placement of the required extinguishers.

21. All buildings that have a street address shall have the number of that address on the building, mailbox, or other type of sign at the driveway entrance in such a manner that the number is easily and clearly visible from either direction of travel from the street. An address sign shall be placed at each break of the road where deemed applicable by the San Mateo County Fire Department. Numerals shall be contrasting in color to their background and shall be no less than 4 inches in height, and have a minimum 1/2-inch stroke.

22. a. Any chimney or woodstove outlet shall have installed onto the opening thereof an approved (galvanized) spark arrester of a mesh with an opening no larger than 1/2 inch in size, or an approved spark arresting device.

    b. Maintain around and adjacent to such buildings or structures a fuelbreak/ firebreak made by removing and clearing away flammable vegetation for a distance of not less than 30 feet and up to 100 feet around the perimeter of all structures or to the property line, if the property line is less than 30 feet from any structure. This is not a requirement nor an authorization for the removal of live trees. Remove that flammable portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe, or within 5 feet of any portion of any buildings or structures.

    c. Remove that dead or dying portion of any tree which extends over the roofline of any structure.

23. All dead-end roadways shall be terminated by a turnaround bulb of not less than 96 feet in diameter.

24. Fire Department access shall be to within 150 feet of all exterior portions of the facility and all portions of the exterior walls of the first story of the buildings as measured by an approved access route around the exterior of the building or facility. Access shall be 20 feet wide, all-weather surface, and able to support a fire apparatus weighing 75,000 lbs. Where a fire hydrant is located in the access, a minimum of 26 feet is required for a minimum of 20 feet on each side of the hydrant. This access shall be provided from a publicly maintained road to the property. Grades over 15% shall be paved and no grade shall be over 20%. When gravel roads are used, it shall be Class 2 base or equivalent compacted to 95%. Gravel road access shall be certified by an engineer as to the compaction and weight it will support.

25. All San Mateo County Fire Department conditions shall be maintained at all times for the life of this use permit.