

**TOWN OF MORAGA PLANNING COMMISSION
SPECIAL MEETING AGENDA
Tuesday, February 22, 2011
7:30 p.m.**

**Moraga Library Meeting Room
1500 Saint Mary's Road, Moraga California 94556**

All documents relating to the following agenda items are available for public review in the Planning Department of the Town of Moraga at 329 Rheem Blvd. between the hours of 9 a.m. to noon, Monday, Tuesday and Thursday (other times by appointment). Staff reports will normally be available on the Monday afternoon one week preceding the meeting. It is recommended that you contact the Planning Department at 925-888-7040 for availability.

I. CALL TO ORDER AND ROLL CALL

Planning Commission

- A. Driver, Levenfeld, Obsitnik, Richards, Socolich, Whitley, Wykle
- B. Conflict of Interest

II. ADOPTION OF MEETING AGENDA

III. ANNOUNCEMENTS

IV. PUBLIC COMMENTS

This part of the agenda is to receive public comments on matters that are not on this agenda. Comments received will not be acted upon at this meeting and may be referred to a subcommittee for response. Comments should not exceed three minutes.

V. ADOPTION OF THE CONSENT CALENDAR

Items on the Consent Calendar are believed by staff to be non-controversial. Staff believes that the proposed action is consistent with the commission's instructions. A single motion may adopt all items on the Consent Calendar. If any commissioner or member of the public questions any item, it should be removed from the Consent Calendar and placed in part IX of the Regular Agenda.

VI. PUBLIC HEARINGS

Opening remarks by an applicant shall not exceed ten minutes. Comments by others shall not exceed three minutes. The purpose of a public hearing is to supply the Planning Commission with information that it cannot otherwise obtain. Because of the length of time that the Planning Commission meetings frequently consume, please limit testimony and presentation to the supplying of factual information. In fairness to the Commission and others in attendance, please avoid redundant, superfluous or otherwise inappropriate questions or testimony.

- A. **CUP 13-10 – AT&T Wireless Transmitter Facility / Velocitel (Applicant) for AT&T, Saint Mary's College of California (Property Owner)** A public hearing to consider a conditional use permit to install a temporary AT&T *Cell Site On Wheels* (COW) on a gravel area between the tennis courts and a softball field at the St. Mary's College campus located at 1928 St. Mary's Road. The 7-foot by 20-foot COW will have two 55-foot tall telescoping poles with antennas and a private use microwave transmitter. The 55-foot height for the antennas is necessary in order to overcome the height of the campus buildings and to provide coverage to the entire college as well as the surrounding area. The location was selected to be more than 300-feet away from any residences and for the most part screened from view by existing trees. Depending on when AT&T gets approval for a permanent site at Saint Mary's College, the COW is proposed for a 6 to 12 month period. The property is zoned College. APN 258-150-004.

VII. PUBLIC MEETING

VIII. ROUTINE & OTHER MATTERS

The following items do not require a public hearing, although the Chair or staff will indicate why each item is on the agenda. Public participation will be limited and the Commission may decide to reschedule the item as a public hearing. Discussion of administrative matters, such as adoption of findings, may be limited to the Planning Commission.

IX. COMMUNICATIONS – None

X. REPORTS

A. Planning Commission

1. Russell Driver, Chair
2. Dick Socolich, Vice Chair
3. Stacia Levenfeld
4. Jim Obsitnik
5. Tom Richards
6. Bruce Whitley
7. Roger Wykle

B. Staff

1. Update on Town Council actions and future agenda items.

XII. ADJOURNMENT

To a special meeting of the Planning Commission on **Monday, March 7, 2011** at 7:30 P.M. at the Moraga Library Meeting Room, 1500 St. Mary's Road, Moraga, California. Notices of Planning Commission meetings are posted at 2100 Donald Drive, the Moraga Commons, and the Moraga Public Library.

NOTICE: If you challenge a town's zoning, planning or other decision in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Planning Commission at or prior, to the public hearing. Judging review of any town administrative decision may be had only if petition is filed with the court not later than the 90th day following the date upon which the decision becomes final. Judicial review of environmental determinations may be subject to a shorter time period for litigation, in certain cases 30 days following the date of final decision.

The Town of Moraga will provide special assistance for disabled citizens upon at least 24 hours advance notice to the Planning Department (888-7040). If you need sign language assistance or written material printed in a larger font or taped, advance notice is necessary. All meeting rooms are accessible to disabled.

Copies of all staff reports and documents subject to disclosure that relate to each item of business referred to on the agenda are available for public inspection the 10th day before each regularly scheduled Planning Commission meeting at the Planning Department, located at 329 Rheem Boulevard, Moraga, CA. Any documents subject to disclosure that are provided to all, or a majority of all, of the members of the Town Council regarding any item on this agenda after the agenda has been distributed will also be made available for inspection at 329 Rheem Boulevard, Moraga, CA during regular business hours.

PLANNING COMMISSION STAFF REPORT

DATE: February 15, 2011 for the **February 22, 2011 meeting**

ITEM: VI. A – Planning Commission Public Hearing

FILE: **CUP 13-10 – AT&T Wireless Transmitter Facility / Velocitel (Applicant) for AT&T, Saint Mary's College of California (Property Owner).** A public hearing to consider a conditional use permit to install a temporary AT&T *Cell Site On Wheels* (COW) on a gravel area between the tennis courts and a softball field at the St. Mary's College campus located at 1928 St. Mary's Road.

ASSESSOR'S PARCEL NUMBER: 258-150-004

TOWN ZONING: College

GENERAL PLAN DESIGNATION: Community Facilities

ENVIRONMENTAL REVIEW STATUS: The project qualifies for the following categorical exemption as listed in the State Environmental Guidelines: Section 15303 – New construction of small structures and installation of small new equipment and facilities.

PUBLIC NOTICE AND CORRESPONDENCE:

A notice was mailed to property owners within 300-feet of the subject property on February 11, 2011 in accordance with Moraga Municipal Code Section 8.12.070. In addition, notices were posted at 2100 Donald Drive, Moraga Commons, and the Moraga Library. A copy of the Area of Notice Map, Mailing List and the public hearing notice is attached as **EXHIBIT A**. No correspondence was received from the public prior to the distribution of the agenda packet. Any correspondence received prior to the meeting will be brought to the meeting.

BACKGROUND: A portable cellular transmission facility was used at St. Mary's College during the gubernatorial debates held for the last election in November 2010. While the temporary facility was operational, everyone at the college raved about the great reception on their cell phones. AT&T is in the process of negotiating with the College for a permanent transmission facility and the purpose of the COW is to provide improved service for a 6 to 12 month period until a permanent replacement transmitter can be installed.

Staff was set to approve this temporary cellular transmission installation administratively and mailed a letter to that effect on February 4, 2011. However, due to the proximity of the COW to the St. Mary's Road scenic corridor and the proposed 55-foot height of the antennas, a public hearing before the Planning Commission was requested by a member of the Commission.

APPLICATION SUMMARY: The 7-foot by 20-foot COW will have two 55-foot tall telescoping poles with antennas. There will also be a private use microwave transmitter and a microwave panel antenna mounted 4-feet inside the bell tower of the chapel at St. Mary's College behind an existing glass window. The 55-foot height for the antennas is necessary in order to

overcome the height of the campus buildings and to provide coverage to the entire college as well as the surrounding area. The location was selected to be more than 300-feet away from any residences. Existing trees north and west of the proposed installation will help screen the view of the antennas from St. Mary's Road.

The applicant has submitted a description of the project which is attached as **EXHIBIT B**. The location of the COW north of the tennis courts is shown as a bright red square on the map below.



APPLICABLE MUNICIPAL CODE SECTIONS:

Moraga Municipal Code (MMC) Chapter 8.144 states the regulations for wireless communications facilities and miscellaneous antennas. The intent of Chapter 8.144 is to minimize the potential health, safety and aesthetic impacts of such facilities on the community. The Planning Commission must address the following issues:

MMC Section 8.144.030: General development standards for wireless communication facilities:

- B. The general development standards for “roof and building mounted equipment” have been addressed below because the transmitter equipment is within a “building” on the trailer and is not “ground mounted equipment” described under sub-section ‘A’.
 - 1. Roof and building mounted equipment shall be located as far away as feasible and aesthetically practicable from the outer edge of a building. Antennas attached to a building shall be painted or treated to match the exterior of the building or background visible beyond the antenna.

COMMENT: The COW is a 7-foot by 20-foot trailer that holds a small equipment enclosure and two 55-foot tall telescoping poles with antennas. The antennas can be painted to match the exterior of the building or they can be painted to match the trees in the distance.

2. Roof and building mounted equipment shall avoid being mounted on the peaks of roofs to the greatest extent possible and all other related equipment shall be screened or hidden from view.

COMMENT: *The two 55-foot monopoles are attached to the trailer via two retractable antenna masts. Most of the COW equipment is hidden in the equipment shelter or enclosure. The temporary COW is not visible to the public except for the two monopoles which are mostly blocked by existing trees and buildings. They will, however, be seen from the athletic fields.*

- C. A wireless communication facility shall comply with all applicable FCC standards for radio frequency emissions and shall not adversely affect the public health, safety or welfare.

COMMENT: *The applicant's submittal states that the COW will comply with all applicable FCC standards for radio frequency emissions. The RF emission from the cell site is 0.96% of what the FCC allows. The applicant states that it would take several hundred cell sites at a single location to even come close to reaching the limits allowed by the FCC. The requirement in the Town's Wireless Communications Ordinance under Section 8.144.080-B for annual testing to verify compliance with FCC radio frequency emissions standards was challenged recently, when Verizon Wireless questioned whether this condition was contrary to FCC regulations under Section 332 in the US Code Title 47, Chapter 5. Section 332 from US Code Title 47, Chapter 5. Sub-chapter III, Part I, sub-section (c)(7)(B)(iv) states that no State or local government may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the (Federal Communication) Commission's regulations concerning such emissions. The Town Attorney's opinion was that a strong legal argument could be made that annual testing is permissible, but the question was still an open issue whether a local government can require proof of compliance. As long as the Town does not impose more stringent emissions regulations than those imposed by the FCC, the Town Attorney believed that we would not be preempted by federal law.*

- D. All new wireless communication facilities shall be collocated with existing and/or with other planned new facilities whenever feasible and aesthetically desirable. Collocation is discouraged when it will increase visual impacts. Service providers are encouraged to collocate with other facilities such as water tanks, light standards and other utility structures where the collocation is found to minimize the overall visual impact.

COMMENT: *The COW is a temporary facility that is not collocated with any existing facilities. It is a mobile facility proposed behind a temporary 6 foot fence and existing trees and light poles. The applicant will provide photo simulations of the COW at the meeting. The photos below and on the next page show views from the St. Mary's Road scenic corridor looking toward the site and views from near the tennis courts on the campus.*





THE COW TRAILER WILL BE LOCATED BEHIND A SMALL HILL SOUTHWEST OF BALLFIELD

- E. Any exterior lighting shall be manually operated and used only during night maintenance or emergencies. The lighting shall be constructed or located so that only the intended area is illuminated and off-site glare is fully controlled.

COMMENT: *Exterior lighting is not proposed for the COW but this performance standard can be included as a condition of approval.*

- F. Where feasible, the location of commercial wireless communication facilities shall be encouraged to be located on publicly owned property or public easement or right-of-way.

COMMENT: *The subject property is privately owned by St. Mary's College and will be located on the campus near the athletic fields.*

- G. All equipment associated with a wireless communication facility shall be removed within thirty days of the discontinuation of use and the site shall be restored to its original preconstruction condition in a manner consistent with continued use by any collocated facility. The town shall

be given thirty (30) days notice of intent to discontinue use of the facility prior to discontinuation of use.

COMMENT: *The temporary COW is to be removed once the permanent site is on air which may take up to a year. Removal of the COW within 30 days of the operation of the permanent facility or 12 months, whichever comes first, has been included as a condition of approval.*

- H. All proposals for wireless communications facilities shall include a description of the site selection process undertaken, including coverage objectives and alternative site analysis.

COMMENT: *The COW's proposed location best serves the entire campus and isolates it from the general public, the classrooms and the campus residences.*

- I. Antennas and equipment buildings shall not be located closer than three hundred (300) feet from a residential structure and one hundred (100) feet from residential property line.

COMMENT: *The COW is not within 300 feet of any existing or proposed residential structures. The closest existing residential structures are the college dormitories behind the baseball field and the homes located on Del Monte Way. The home at 1661 Del Monte Way is about 584 feet from the COW. The RF emissions would not have any measurable effect on any existing housing in Moraga.*

GENERAL CONDITIONS OF APPROVAL UNDER MMC SECTION 8.144.070:

The Planning Commission may include conditions of approval deemed necessary to ensure visual and land use compatibility with the surroundings. The general conditions listed in MMC Section 8.144.070 include many of the requirements which have been discussed previously in this report. Applicable general conditions have been included in a draft resolution for the project (**EXHIBIT C**).

FINDINGS:

MMC Section 8.12.120 lists the required findings that must be made to grant the Conditional Use Permit. The findings are shown in bold print, followed by suggested language affirming the finding.

- 1. The proposed use is appropriate to the specific location** because it is an area that is in need of better cellular reception. The use will provide a desired service and benefit to the community. Additionally it will allow campus security, police, and administration to promptly respond to issues on campus.
- 2. The proposed use is not detrimental to the health, safety, and general welfare of the Town** because the RF emissions from the COW will comply with the Federal Communication Commission (FCC) standards.
- 3. The proposed use will not adversely affect the orderly development of property within the Town** because the site is not a pristine undeveloped property and currently contains athletic fields (with light towers) and a parking lot. The COW is located in an isolated area of the campus and cannot be seen from any residences.
- 4. The proposed use will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the Town** because the visibility of the COW and 55-foot high antennas is substantially screened from the St. Mary's Road scenic corridor by the existing trees north of the tennis courts and the improved wireless telecommunications service in the area could contribute to an improvement in property values.

5. **The proposed use is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plans** because the proposed AT&T COW is consistent with the requirements of the Town's Wireless Communications Ordinance and greatly improves network coverage on the College's campus. It also complies with all applicable design guidelines.
6. **The proposed use will not create a nuisance or enforcement problem within the neighborhood** because the location of the proposed AT&T COW will have restricted access to the site on the St. Mary's campus. The facility will not produce any smoke or debris. AT&T's maintenance personnel will access the site about once a month to monitor the equipment.
7. **The proposed use will not encourage marginal development within the neighborhood** because the proposed COW facility is temporary and will be replaced by a permanent cellular transmitter within 6 to 12 months.
8. **The proposed use will not create a demand for public services within the Town beyond that of the ability of the Town to meet in light of taxation and spending restraints imposed by law** because the unmanned facility will be maintained by AT&T and there would be no demand for additional public services.
9. **The proposed use is consistent with the Town's approved funding priorities.** The installation of the new AT&T COW for telecommunications transmission to St. Mary's College will have no impact on the Town's funding priorities.

RECOMMENDATION: The Town of Moraga acknowledges the community benefit of wireless communication facilities and that they are particularly valuable in emergency situations. The Town supports any improvements to service and area of coverage by the service providers. Approval of this conditional use permit would result in allowing the temporary use of the wireless facility and not necessarily the design of the project. If the COW is approved, the Design Review Board may be asked to review the paint color for the antennas, the design of the equipment enclosure and the feasibility of installing landscaping to help screen the installation. Staff recommends approval of the conditional use permit for the AT&T COW at St. Mary's College, subject to the findings and conditions listed in the draft resolution attached as **EXHIBIT D**.

Prepared by: Kelly Suronen, Assistant Planner

EXHIBITS:

- A – Notice Area Map, Mailing List and Public Hearing Notice
- B – AT&T Submittal Statements
- C – Draft PC Resolution
- D – Applicant's Plans and Photo-simulated renderings

EXHIBIT A

**NOTICE AREA MAP,
MAILING LIST AND
PUBLIC HEARING NOTICE**

PUBLIC HEARING

Town of Moraga

YOU ARE HEREBY NOTIFIED THAT on **Tuesday, February 22, 2011, at 7:30 p.m.**, in the meeting room at the Moraga Library, 1500 Saint Mary's Road, Moraga, California 94556, the Planning Commission of the Town of Moraga will hold a public hearing to consider the following application:

CUP 13-10 – AT&T Wireless Transmitter Facility / Velocitel (Applicant) for AT&T, Saint Mary's College of California (Property Owner). A public hearing to consider a conditional use permit to install a temporary AT&T *Cell Site On Wheels* (COW) on a gravel area between the tennis courts and a softball field at the St. Mary's College campus located at 1928 St. Mary's Road. The 7-foot by 20-foot COW will have two 55-foot tall telescoping poles with antennas and a private use microwave transmitter. The 55-foot height for the antennas is necessary in order to overcome the height of the campus buildings and to provide coverage to the entire college as well as the surrounding area. The location was selected to be more than 300-feet away from any residences and for the most part screened from view by existing trees. Depending on when AT&T gets approval for a permanent site at Saint Mary's College, the COW is proposed for a 6 to 12 month period. The property is zoned College. APN 258-150-004.

Property Owner	Applicant
St Mary's College of California PO Box 4200 Moraga, CA 94575-4200	AT&T 4430 Rosewood Drive Pleasanton, CA 94588

The plans for this project are available for public review at the Moraga Planning Department, 329 Rheem Blvd, during normal business hours (Monday through Friday from 8 am to noon and 1 to 5 pm). Comments regarding the proposed project can be submitted in writing or orally at the public meeting. Written comments submitted to the Planning Department will be given to the Planning Commission on the night of the meeting. For additional information, contact the Planning Department at (925) 888-7040.

Richard Chamberlain, Senior Planner

MAILING LIST FOR AT&T COW at ST. MARY'S COLLEGE FOR 02-22-11 PC HEARING

APN	Name	Address	City & Zip
258371012	John T Jr Burnite	1693 DEL MONTE WAY	MORAGA, CA 94556 2043
258371011	Paul R & Vicky F Cohune Trust	1685 DEL MONTE WAY	MORAGA, CA 94556 2043
258371020	Robert M & Neville P Susich	1680 DEL MONTE WAY	MORAGA, CA 94556 2040
258371010	Grace Huei-chuan Lee	1677 DEL MONTE WAY	MORAGA, CA 94556 2043
258371021	Bradford W & Deborah Lomas Trust	1662 DEL MONTE WAY	MORAGA, CA 94556 2040
258371022	R Bradford & Charity A Huss	1005 WICKHAM DR	MORAGA, CA 94556 2038
258371009	James T Parsons	1669 DEL MONTE WAY	MORAGA, CA 94556 2043
258371006	Robert D & Emilie E Wilson Trust	1645 DEL MONTE WAY	MORAGA, CA 94556 2043
258371007	Thomas M & Sally Roberts Trust	1653 DEL MONTE WAY	MORAGA, CA 94556 2043
258371008	Joseph R & Karen M Sienkiewicz	1661 DEL MONTE WAY	MORAGA, CA 94556 2043
258371027	Real Estate Services	PO BOX 24055	OAKLAND , CA 94623 1055
258140002	Marys College St	PO BOX 4200	MORAGA , CA 94575 4200
258371026	Central Cc Sanitary District	5019 IMHOFF PL	MARTINEZ , CA 94553 4316
	East Bay Regional Park District	PO BOX 5381	OAKLAND , CA 94605-0381
	AT&T	4430 Rosewood Drive	PLEASANTON, CA 94588
	Velocitel - Attn: Dave Brasmer	6600 Koll Center Parkway Ste 150	PLEASANTON, CA 94566
	Dennis Rice - Dir. Telecommunications	1928 St. Mary's Road	MORAGA, CA 94575

DUPLICATE ADDRESSES

258150002	Marys College St	PO BOX 4200	MORAGA , CA 94575 4200
258150004	Marys College St	PO BOX 4200	MORAGA , CA 94575 4200
258150005	Marys College St	PO BOX 4200	MORAGA , CA 94575 4200
258150001	Marys College St	PO BOX 4200	MORAGA , CA 94575 4200
258150007	Real Estate Services	PO BOX 24055	OAKLAND , CA 94623 1055
258150008	Central Cc Sanitary District	5019 IMHOFF PL	MARTINEZ , CA 94553 4316
258150006	Marys College St	PO BOX 4200	MORAGA , CA 94575 4200
256110055	Town of Moraga	329 Rheem Blvd.	MORAGA , CA 94556

EXHIBIT B

AT&T SUBMITTAL STATEMENTS



Town of Moraga
 PLANNING DEPARTMENT
 329 Rheem Boulevard, Suite 2
 MORAGA, CA 94556
 Phone: (925) 888-7040 Fax: (925) 376-5203
 Website: www.moraga.ca.us
 Email: planning@moraga.ca.us

Form Updated 3/19/08
 For Staff Use Only

Received 1/7/11

File #: UP-13-10
 Deposit #: \$3,000.00

P-10-14

WIRELESS COMMUNICATIONS FACILITIES CONDITIONAL USE PERMIT APPLICATION

PROPERTY ADDRESS: 1928 St. Mary's Road, Moraga CA. 94556 **ZONING:** College/LU4.7

ASSESSORS PARCEL NUMBER: 258-150-004-1

APPLICANT INFORMATION	OWNER INFORMATION
NAME: Velocitel/ David Brasmer ADDRESS: 6600 Koll Center Parkway, Suite 150 CITY/STATE/ZIP: Pleasanton CA 94566 PHONE: 925-931-9011 ext.22 EMAIL: dbrasmer@gmail.com	NAME: St. Mary's College % Dennis Rice – Director of Telecommunications ADDRESS: 1928 St. Mary's Road CITY/STATE/ZIP: Moraga CA 94556 PHONE: 925-631-4794 EMAIL: drice@stmarys.ca.edu

APPLICATION FILING DEPOSIT REQUIRED:

Applications for a conditional use permit require a deposit of **\$3,000**. An applicant is responsible for all charges associated with processing the application including, but not limited to, charges for public notices, preparation of staff reports, meeting minutes and review by town consultants (if required). Complete applications require less staff time and thus are less expensive to process. Additional deposits may be required if the initial deposit is insufficient to cover the processing cost for the application.

APPLICANT / OWNER AUTHORIZATION
<p>CHOOSE ONE:</p> <p><input type="checkbox"/> I am the property owner and hereby authorize the filing of this application.</p> <p><input checked="" type="checkbox"/> I am the applicant and am authorized by the owner to file this application.</p> <p>By signing below the applicant acknowledges the Town of Moraga deposit account system and agrees to pay any additional charges that may be incurred beyond the initial deposit.</p> <p>SIGNATURE AND DATE: <u> 1-7-11</u></p>

OTHER CONTACT INFORMATION AND PROJECT CONSULTANTS:

PROJECT GEOTECHNICAL ENGINEER	PROJECT CIVIL ENGINEER
NAME: N/A <hr/> ADDRESS: _____ CITY/STATE/ZIP: _____ PHONE: _____ EMAIL: _____	NAME: Kevin Sorensen ADDRESS: Streamline Engineering & Design, Inc. 3268 Penryn Road, Suite 200 CITY/STATE/ZIP Loomis CA 95650 PHONE: 916-660-1930 EMAIL: kevin@streamlineeng.com

PROJECT ARCHITECT OR DESIGNER	LANDSCAPE ARCHITECT
NAME: Ryan Niedzwiecki ADDRESS: 6600 Koll Center Pkwy Suite 150 CITY/STATE/ZIP: Pleasanton CA 94566 PHONE: 925-931-9011 x24 EMAIL: r.niedzwiecki@velocitel.net	NAME: N/A <hr/> ADDRESS: _____ CITY/STATE/ZIP: _____ PHONE: _____ EMAIL: _____

WIRELESS COMMUNICATION FACILITIES CONDITIONAL USE APPLICATION OVERVIEW

Under Moraga Municipal Code (MMC) Section 8.144.080, a wireless communication facility is permitted in all zoning districts on the issuance of a conditional use permit subject to findings stated in Section 8.12.120. MMC Section 8.144.030 lists the general development standards for all new wireless communications facilities. There are also specific development standards for facilities located in commercial, residential or open space districts listed in MMC Sections 8.144.040, 050 and 060, respectively.

PROJECT DESCRIPTION: AT&T is proposing to park a temporary Cell Site On Wheels (COW) with two 55' tall telescoping poles and a private use microwave transmitter on a gravel area between the tennis courts and a softball field (See attached exhibits) on the campus of St. Mary's College . This Temporary COW will only be in use for 6 months to a year until AT&T can get their permanent site on air.

Current cellular reception on the campus of St. Mary's College for AT&T has been significantly reduced due to the high volume of AT&T users in the area. College students are heavily users of voice, text and data services provided by AT&T. Cellular antenna sites are only able to handle approximately 300 callers at a time and then start to drop calls. In this area, cellular phones only work marginally out of doors and not very well inside structures or vehicles.

AT&T is extremely experienced in the cellular industry and is one of the largest providers of cellular telephone service in the United States. The community benefit to the Town of Moraga area at large will be the provision of improved wireless telecommunication services- most importantly emergency service communication to not only the residents of the campus, but also to its employees, City and County employees, emergency service providers and the general public.

The AT&T network provides a wide range of wireless telecommunication services including voice and data. To improve the ability of emergency services to quickly assist those in need, a called location system called Enhanced 9-1-1 (E911) is being deployed across the country. E911 provides four functions to help connect emergency responders and distressed wireless callers more quickly:

The proposed AT&T facility will handle E911 calls from any cell phone and ensures that a wireless 911 call is routed to the most appropriate emergency dispatch call center. It provides emergency dispatchers with the call back number of the caller, provides the approximate location of the caller.

AT&T is committed to providing the wireless infrastructure required to fully support E911 capabilities. That means placing enough facilities throughout communities to ensure that a distressed caller's wireless phone has adequate signal available to make the emergency call, to stay connected with the 911 operator, and to be located by emergency responders. The addition of this proposed facility will greatly improve the network coverage in the area and provide a needed service and benefit to the community.

Please contact Dave Brasmer @ (925) 931-9011 x22 with any questions or for additional information.

COMPLIANCE WITH GENERAL DEVELOPMENT STANDARDS FOR WIRELESS COMMUNICATIONS FACILITIES LISTED IN MMC SECTION 8.144.030:

Please describe in a written statement how your application for installation of a wireless communications facility complies with the standards listed below and if the project does not comply, explain why an exception to the standard should be considered by the Planning Commission.

A. Ground Mounted Equipment.

All ground mounted wireless communication equipment, antennas, poles, dishes, cabinets, structures, towers or other appurtenances shall be:

1. Of a minimal functional height or no greater than twenty (20) feet, whichever is less;
2. Have a nonreflective finish and shall be painted or otherwise treated to minimize visual impacts;
3. Shall be sited to be screened by existing development, topography or vegetation to the extent consistent with proper operation of the wireless communication facility. Additional new vegetation and its proper irrigation where practical, or other screening may be required as a condition of approval.

Previous discussions with the Moraga Planning Department has determined that the COW is considered to be a building which contains internally housed equipment- see Building Mounted equipment section below.

B. Roof and Building Mounted Equipment.

Roof and building mounted equipment, including monopoles and antennas shall:

1. Be located as far away as feasible and aesthetically practicable from the outer edge of a building. Antennas attached to a building shall be painted or treated to match the exterior of the building or background visible beyond the antenna;
2. Avoid being mounted on the peaks of roofs to the greatest extent possible and all other related equipment shall be screened or hidden from view.

AT&T is proposing to install a temporary Cell Site (COW) with a two 55' tall monopoles with antennas and a private use microwave transceiver. This Temporary COW will only be in use for 6 months to a year until AT&T can get their permanent site on air. In this instance the 55' height is necessary to overcome the height of the campus buildings and provide coverage to the entire campus. All attempts will be made to prevent visual distractions- the area in question is near in an athletic complex with light towers around the area. Immediately around the site are tennis courts, a baseball field, a soccer field, a rugby field and a parking lot. See Exhibit A. It is shielded from any residences by trees on the north, south and west side of the location. Immediately to the east is the college campus. Calculated by Google maps the facility is 600 feet away from any private residences. See exhibits.

Please note that in this application the height has been raised 5 feet from the previous application to extend coverage better into the college and to expand coverage into the Moraga community northwest along St. Mary's Road.

The COW consists of a small equipment facility-- area (7' x 20') designed to house the internal base station equipment cabinets and collapsible antenna towers. Cables running from the equipment cabinets to the monopoles will be self contained. The facility consists of two temporary 55 foot tall monopoles with 6 panel antennas. Also on the pole will be a 12 inch by 12 inch by ½ inch flat panel transceiver. This is only to process calls and data to the site and is not available for general use. This will be used to transmit phone calls and

data to another 12 inch by 12 inch microwave transceiver located four feet behind the window in the church bell tower. This location is not visible to the public. From there, calls and data will be sent by cabling to the campus telecommunication switching center. Please refer to the attached specification, pictures, site plan and elevations for the proposed project.

Please note that in order to comply with setback restriction it was necessary to use the private use microwave transceivers.

The two monopoles on the COW will be marginally visible to the public but are blocked from direct view by existing trees and buildings. Access to the equipment area will be from the parking lot that currently serves the site. Outriggers on the facility will be extended for stability. In addition guy wires will also be used to help stabilize the antennas. The site will be enclosed on four sides by a locked and secured chain link fence. Due to the developed nature of the site as a college campus it is highly unlikely that any rare or endangered species of flora or fauna are present. Please refer to the attached drawings and photos.

General Conditions

AT&T Lease

AT&T and the property owner St. Mary's College are negotiating a ground lease for the COW. A lease agreement will be signed in the next few weeks. The proposed lease area will be 24' x 24'.

Business, hours of operation and employees

The proposed AT&T facility will operate 24 hours a day, seven days a week. The facility is unmanned and there will be no regular traffic. The facility will be visited by a technician in a light vehicle approximately once a month for occasional maintenance of the equipment.

Landscaping, signage and trash

No landscaping is proposed. Only required F.C.C signage is proposed for the property. No trash collection will be necessary as the facility will be unmanned.

Parking

Parking is provided on-site for the project. It is unlikely that more than one or two maintenance vehicles at a time will need to access the property except during construction of the facility. There is currently ample parking space near the softball field for more than one vehicle at the site.

Trees, demolition and grading

No trees are proposed to be removed. The existing grade of the property where the facility is to be located is relatively flat. No grading will be required for the development of the proposed project.

Telephone & Power

Telephone will be provided by a private use microwave dish placed on the COW mast and in the Church bell tower where the calls will be routed into the colleges switching system.

Please note--power will be provided on a temporary basis by a Whisper generator until the college can determine how power can be routed over from the maintenance areas near the softball field. This temporary arrangement will continue for 30-60 days and is necessitated by the relocation of the site. The Whisper generator operates at 65 db at 23 feet and operates under the decibel threshold for noise pollution. See attached Specs.

Construction

Construction will only commence after receipt of all permits issued by the Town of Moraga and will take approximately two (2) to four (4) weeks to complete. The electrical work will only be conducted during daytime hours. The only construction involved will be to connect the COW to power and telephone service. No grading or paving are required for installation of the COW.

Changes in Views or Scenic Vistas

Because of the COWs proposed location behind a temporary 6 foot slatted fence and existing trees and light poles, the COW itself won't be visible-- but the antennas, due to the number of existing trees on-site and the distance away from existing buildings won't be readily visible except on the athletic fields.

- C. A wireless communication facility shall comply with all applicable FCC standards for radio frequency emissions and shall not adversely affect the public health, safety or welfare.

Wireless safety

Scientists all over the world continually study the potential health effect of RF energy. These studies conclude that there is no evidence that RF energy from wireless facilities pose a public health threat. The RF emission from this cell site is a miniscule percentage (.96%) of what the Federal Communications Commission (FCC) allows. It would take several hundred cell sites at a single location to even come close to reaching the limits allowed by the FCC. See attached report

- D. All new wireless communication facilities shall be collocated with existing and/or with other planned new facilities whenever feasible and aesthetically desirable. Collocation is discouraged when it will increase visual impacts. Service providers are encouraged to collocate with other facilities such as water tanks, light standards and other utility structures where the collocation is found to minimize the overall visual impact.

Not applicable.

- E. Any exterior lighting shall be manually operated and used only during night maintenance or emergencies. The lighting shall be constructed or located so that only the intended area is illuminated and off-site glare is fully controlled.

Not applicable in the case of the COW.

- F. Where feasible, the location of commercial wireless communication facilities shall be encouraged to be located on publicly owned property or public easement or right-of-way.

The Cow will be located on the college campus.

- G. All equipment associated with a wireless communication facility shall be removed within thirty days of the discontinuation of use and the site shall be restored to its original preconstruction condition in a manner consistent with continued use by any collocated facility. The town shall be given thirty (30) days notice of intent to discontinue use of the facility prior to discontinuation of use.

The COW will be removed when the permanent site is on line or one year – whichever is sooner.

- H. All proposals for wireless communications facilities shall include a description of the site selection process undertaken, including coverage objectives and alternative site analysis.

The proposed location best serves the entire campus and provides visual integrity by concealing the COW.

- I. Antennas and equipment buildings shall not be located closer than three hundred (300) feet from a residential structure and one hundred (100) feet from residential property line.

There are no residential structures in the area. See exhibit B

FINDINGS REQUIRED FOR ALL CONDITION USE PERMITS:

In order to grant a conditional use permit, MMC Section 8.12.120 requires the Planning Commission to make the findings listed below. Please describe how your proposed wireless communication facility complies with the findings:

- 1. The proposed wireless communications facility is appropriate to the specific location as follows:**

The existing Zoning designation for the property is LU4.7- College. The site is to be located on a parking lot off an athletic field on the campus of St. Mary's College. The property is owned by St. Mary's College. The COW is intended to occupy a 24 foot by 24 foot space in the corner of the lot. See site exhibits.

- 2. The proposed wireless communications facility is not detrimental to the health, safety, and general welfare of the town as follows:**

It will allow campus security, police, and administration to promptly respond to issues on campus.

- 3. The proposed wireless communications facility will not adversely affect the orderly development of property within the town because:**

This is on the college campus and will help promote educational access to data and security.

- 4. The proposed wireless communications facility will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the town because:**

N/A- no effect on the tax base of the town.

- 5. The proposed wireless communications facility is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plan because:**

It is in the LU4.7 – College district and is appropriate to enhance telecommunications on the campus.

- 6. The proposed wireless communications facility will not create a nuisance or enforcement problem within the neighborhood because:**

The proposed AT&T facility will operate 24 hours a day, seven days a week. The facility is unmanned and there will be no regular traffic. The facility will be visited by a technician in a light vehicle approximately once a month for occasional maintenance of the equipment

- 7. The proposed wireless communications facility will not encourage marginal development within the neighborhood because:**

Located on the college campus.

- 8. The proposed wireless communications facility will not create a demand for public services within the town beyond that of the ability of the town to meet in the light of taxation and spending restraints imposed by law because:**

There are no foreseeable public services impacts.

- 9. The proposed improvements are consistent with the town's approved funding priorities because:**

There are no foreseeable revenue impacts.

If the proposed improvements do not meet all of the specific findings necessary for a conditional use permit, please indicate why an exception should be granted:

The COW meets all specific requirements.

EXHIBIT C

DRAFT PC RESOLUTION

DRAFT

BEFORE THE TOWN OF MORAGA PLANNING COMMISSION

In the Matter of:

Approval of a conditional use permit to install a temporary AT&T *Cell Site on Wheels* (COW) on a gravel area between the tennis courts and softball field at the St. Mary's College campus located at 1928 St. Mary's Road.

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Resolution xx-2010

File No. UP-13-2010

Adoption Date: February 22, 2011

Effective Date: March 4, 2011
(if not appealed)

WHEREAS, on December 7, 2010 an application was filed by Velocitel on behalf of AT&T (applicant) and St. Mary's College of California (property owner) for a conditional use permit to allow the installation of a temporary AT&T *Cell Site on Wheels* (COW) on a gravel area between the tennis courts and softball field at the St. Mary's College campus located at 1928 St. Mary's Road; and

WHEREAS, the proposed AT&T COW application was found unapprovable because it was within 300-feet of a residence and the planning staff met with the applicants from AT&T to discuss compliance with the Town's Wireless Ordinance; and

WHEREAS, on January 7, 2011 the applicant submitted revised drawings addressing the concerns made by the planning staff; and

WHEREAS, on February 4, 2011 the Zoning Administrator noticed the Planning Commission that she was prepared to approve the application administratively on February 10, 2011; and

WHEREAS on February 7, 2011 the application was called up by a member of the Planning Commission to be heard before the entire Commission due to the proximity of the COW to the St. Mary's Road scenic corridor; and

WHEREAS, on February 11, 2011 public hearing notices were mailed to all property owners within 300 feet of the property and posted at 2100 Donald Drive, the Moraga Commons and the Moraga Library; and

WHEREAS, the project was found to be Categorically Exempt in accordance with Section 15303 of the California Environmental Quality Act (CEQA); and

WHEREAS, on February 22, 2011 the Planning Commission held a public hearing and considered testimony from the applicant and interested parties.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the Town of Moraga hereby approves the temporary *AT&T Cell Site on Wheels (COW)* on a gravel area between the tennis courts and softball field at the St. Mary's College campus located at 1928 St. Mary's Road with the findings listed below in accordance with Sections 8.12.120 of the Moraga Municipal Code and subject to the conditions listed herein:

SPECIFIC FINDINGS NECESSARY FOR ALL CONDITIONAL USE PERMITS:

Section 8.12.120 of the Moraga Municipal Code identifies the required findings that must be made to grant the Conditional Use Permit.

CHAPTER 8.12.120 – CONDITIONAL USE PERMIT REQUIRED FINDINGS.

1. **The proposed use is appropriate to the specific location** because it is an area that is in need of better cellular reception. The use will provide a desired service and benefit to the community. Additionally it will allow campus security, police, and administration to promptly respond to issues on campus.
2. **The proposed use is not detrimental to the health, safety, and general welfare of the Town** because the RF emissions from the COW will comply with the Federal Communication Commission (FCC) standards.
3. **The proposed use will not adversely affect the orderly development of property within the Town** because the site is not a pristine undeveloped property and currently contains athletic fields (with light towers) and a parking lot. The COW is located in an isolated area of the campus and cannot be seen from any structural residences.
4. **The proposed use will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the Town** because the visibility of the COW and 55-foot high antennas is substantially screened from the St. Mary's Road scenic corridor by the existing trees north of the tennis courts and the improved wireless telecommunications service in the area could contribute to an improvement in property values.
5. **The proposed use is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plans** because the proposed AT&T COW is consistent with the requirements of the Town's Wireless Communications Ordinance and greatly improves network coverage on the College's campus. It also complies with all applicable design guidelines.
6. **The proposed use will not create a nuisance or enforcement problem within the neighborhood** because the location of the proposed AT&T COW will have restricted access to the site on the St. Mary's campus. The facility will

not produce any smoke or debris. AT&T's maintenance personnel will access the site about once a month to monitor the equipment.

7. **The proposed use will not encourage marginal development within the neighborhood** because the proposed COW facility is temporary and will be replaced by a permanent cellular transmitter within 6 to 12 months.
8. **The proposed use will not create a demand for public services within the Town beyond that of the ability of the Town to meet in light of taxation and spending restraints imposed by law** because the unmanned facility will be maintained by AT&T and there would be no demand for additional public services.
9. **The proposed use is consistent with the Town's approved funding priorities.** The installation of the new AT&T COW for telecommunications transmission to St. Mary's College will have no impact on the Town's funding priorities.

CONDITIONS OF APPROVAL:

1. This conditional use permit shall be valid for up to one year. The use permit may be extended by the Planning Commission following a public hearing and verification of continued compliance with the conditions of approval and a showing that the facility has been upgraded to minimize its impact, including community aesthetics, to the greatest extent permitted by the technology that exists at the time of renewal and is consistent with the provisions of federal law.
2. If deemed necessary to help mitigate views of the antennas and determine the design of the equipment enclosure, the applicant shall submit renderings and a landscape plan for Design Review Board approval prior to issuance of a building permit.
3. Any lighting used by technicians shall be manually operated and used only during night maintenance or emergencies. The lighting shall be constructed or located so that only the intended area is illuminated and off-site glare is fully controlled.
4. The COW shall be removed within 30 days after the permanent installation is operational. All equipment associated with this wireless communication facility shall be removed within thirty days of the discontinuation of use and the site shall be restored to its original preconstruction condition in a manner consistent with continued use by any collocated facility. The town shall be given 30 days notice of intent to discontinue use of the facility prior to discontinuation of use.

ADOPTED by the Planning Commission of the Town of Moraga on February 22, 2011 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Russell Driver, Chair

Attest: _____
Lori Salamack, Planning Director

EXHIBIT D

APPLICANT'S PLANS AND PHOTO-SIMULATED RENDERINGS

S:\AT&T PROJECTS\CW093 - ST MARY'S COLLEGE\10 - DRAWINGS\CD\STCW093 - ST MARY'S COLLEGE CD.DWG, RYAN NIEDZWIECKI, 12/30/2010



at&t

CC1431/CCU1431/CCU1432 (CW093) ST MARY'S COLLEGE

APPLICANT/OWNER:
 AT&T
 4430 ROSEWOOD DR
 PLEASANTON, CA 94588

PREPARED BY:
velocitel
 complete wireless solutions

VELOCITEL, INC.
 6600 KOLL CENTER PKWY SUITE 150
 PLEASANTON, CA 94566
 OFFICE (925) 931-9011

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SEAL

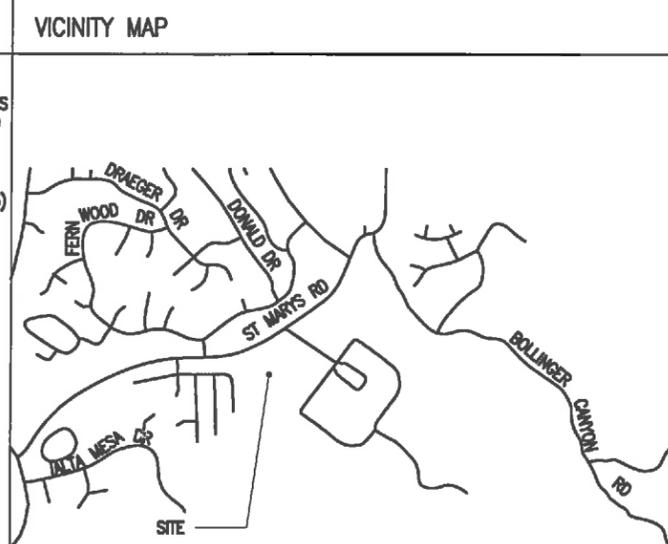
PROJECT DESCRIPTION

THIS PROJECT IS A TEMPORARY SITE FOR THE LOCAL PERSONAL COMMUNICATION SYSTEM (PCS), WHICH TRANSMITS AND RECEIVES RADIO SIGNALS AS PART OF A REGIONAL PCS NETWORK FOR AT&T. THIS PCS SITE IS LOCATED OUTSIDE IN THE OPEN COMPOUND, LOCATED WITHIN CONTRA COSTA COUNTY, CALIFORNIA.

THE MAIN COMPONENTS OF THIS INSTALLATION ARE THE ADDITION OF THREE (3) SECTORS EACH CONTAINING SIX (6) PROPOSED 63.5" X 5" X 11" PANEL ANTENNAS, TWO (2) PER SECTOR MOUNTED TO THE TELESCOPING MONOPOLE. ALSO THE ADDITION OF A 18' X 18' LEASE AREA CONTAINING A CELL ON WHEELS (COW), CELL CABINETS AND POWER / TELCO RACK.

APPROVALS (AS REQUIRED)

APPROVED BY:	INITIALS:	DATE:
LANDLORD:		
LEASING:		
RF ENGINEER:		
ZONING MANAGER:		
VELOCITEL CONSTRUCTION:		
CONSTRUCTION MANAGER:	RR	12/7/10
POWER/TELCO:		
PG&E:		
SITE ACQUISITION:	DB	11/22/10
PROJECT MANAGER:		
EQUIPMENT SPECIALIST:		



DIRECTIONS FROM PLEASANTON OFFICE

- DEPART 6600 KOLL CENTER PKWAY
- TURN RIGHT (WEST) ONTO BERNAL AVE.
- TAKE RAMP (RIGHT) ONTO I-880
- AT EXIT 45B, TAKE THE OLYMPIC BLVD EXIT
- TURN LEFT (WEST) ONTO OLYMPIC BLVD
- TURN LEFT ONTO RELIEZ STATION ROAD/GLENSIDE DR.
- TURN LEFT (SOUTH) ONTO ST MARY'S ROAD
- ARRIVE AT 1928 ST MARY'S ROAD, MORAGA CA

PROJECT INFORMATION

APPLICANT/LESSEE
 AT&T,
 4430 ROSEWOOD DR
 PLEASANTON, CA 94588
 CONTACT: JUAN VERENZUELA
 TELEPHONE: (925) 488-1187

PROPERTY OWNER:
 NAME: ST MARY'S COLLEGE
 ADDRESS: 1928 ST MARY'S RD
 MORAGA, CA 94566
 CONTACT: DENNIS RICE
 PHONE: (925) 631-4209

PROPERTY INFORMATION
 SITE NAME: ST MARY'S COLLEGE
 SITE NUMBER: CC1431/CCU1431 /CCU1432 (CW093)
 SITE ADDRESS: 1928 ST MARY'S ROAD
 MORAGA, CA 94566
 GEODETIC COORDINATES (NAD83 DATUM)
 LATITUDE: 37° 50' 25.20"
 LONGITUDE: -122° 6' 28.69"

LEGAL DESCRIPTION
 PLEASE REFER TO LS-1 SURVEY FOR COMPLETE LEGAL DESCRIPTION.

HANDICAP REQUIREMENTS
 FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS AND REQUIREMENTS NOT REQUIRED, IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE, PART 2, TITLE 24, SECTION 11058.3.42, EXCEPTION 1.

CODE COMPLIANCE

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

- CALIFORNIA BUILDING CODE CBC-2007
- CALIFORNIA ADMINISTRATIVE CODE (INCL. TITLES 24 & 25) 2001
- ANSI/EIA-222-F LIFE SAFETY CODE
- NFPA-101-1997
- CALIFORNIA ELECTRICAL CODE CEC-2004
- CALIFORNIA MECHANICAL CODE CMC-2001
- CALIFORNIA PLUMBING CODE CPC-2001
- LOCAL BUILDING CODE(S)
- CITY AND/OR COUNTY ORDINANCES
- MUST COMPLY TO LATEST CALIFORNIA FIRE CODE, (AND LATEST MUNICIPAL FIRE CODE).

SHEET INDEX

C-1	TITLE SHEET, PROJECT INFORMATION
C-2	GENERAL NOTES, LEGENDS, SPECIAL INSPECTIONS & ABBREVIATIONS
C-3	GENERAL NOTES
C-4	OVERALL SITE PLAN
C-5	ENLARGED SITE PLAN
C-6	PROPOSED SITE ELEVATIONS
C-7	PROPOSED MICROWAVE ENLARGED PLAN
C-8	PROPOSED MICROWAVE ELEVATION
C-9	DETAIL SHEET
E-1	ELECTRICAL NOTES
E-2	ELECTRICAL PANEL SCHEDULES AND SINGLE LINE DIAGRAM NOT USED
E-3	ELECTRICAL DETAILS
E-4	GROUNDING PLAN
RF-1	RF GENERAL NOTES & DATA SHEET

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF VELOCITEL TO ALTER THIS DOCUMENT. UNLESS EXPLICITLY AGREED TO BY VELOCITEL IN WRITING, THE ENGINEER DISCLAIMS ALL LIABILITY ASSOCIATED WITH THE REUSE, ALTERATION OR MODIFICATION OF THE CONTENTS HEREIN.

REVISIONS

REV	DATE	DESCRIPTION	BY
A	10/10/10	ISSUED FOR 100% PERMITTING	CMN
0	11/18/10	ISSUED FOR 90% CONSTRUCTION	RBN
1	12/7/10	RESUBMITTED FOR 90% CONSTRUCTION	RBN
2	12/8/10	ISSUED FOR 100% CONSTRUCTION	RBN
3	12/29/10	REDESIGNED & RESUBMITTED FOR 90% PERMITTING	RBN
4	12/29/10	REDESIGNED & RESUBMITTED FOR 100% PERMITTING	RBN
5	1/4/11	REDESIGNED & RESUBMITTED FOR 90% CONSTRUCTION	RBN
6			
7			
8			

PROJECT LOCATION

AT&T FAX: 10547062
AT&T SITE #: CC1431/CCU1431 /CCU1432 (CW093)

ST MARY'S COLLEGE
 1928 ST MARY'S ROAD
 MORAGA, CA 94556

DRAWN BY: RYAN NIEDZWIECKI
 CHECKED BY: SKIP TONNER

DRAWING DESCRIPTION:
TITLE SHEET & PROJECT INFORMATION

DRAWING NUMBER:
C-1

A	AMPERAGE	EMBED	EMBEDMENT	PRELIM	PRELIMINARY
AC	ALTERNATING CURRENT	EDT	ELECTRICAL DOWN-TILT	PLYWD	PLYWOOD
ADJUST	ADJUSTABLE	EMER	EMERGENCY	(P)	PROPOSED
ADJ	ADJACENT	ENCL	ENCLOSURE	PN OR P/N	PART NUMBER
AL	ALUMINUM	ENGRG	ENGINEERING	PNL	PANEL
ALY	ALLOY	EQPT	EQUIPMENT	P/O	PART OF
ANT	ANTENNA	(E)	EXISTING	POSN	POSITION
ANODZ	ANODIZE	EXP JT	EXPANSION JOINT	PWR	POWER
APPROX	APPROXIMATE	EXT	EXTERIOR	R	RADIUS
ARCH	ARCHITECTURAL	FAB	FABRICATE	RAD	RADIATION
AR OR A/R	AS REQUIRED	FS	FARSIDE	RELOC	RELOCATED
ASSY	ASSEMBLY	FSNTR	FASTENER	RCVR	RECEIVER
AVG	AVERAGE	FDN	FOUNDATION	RCPT	RECEPTACLE
AWG	AMERICAN WIRE GAUGE	F/O	FACE OF	RWD	REDWOOD
BAT.	BATTERY	FOC	FACE OF CURB	REINF	REINFORCE
BLDG	BUILDING	FOM	FACE OF MASONRY	RLF	RELIEF
BLK	BLOCK	FOS	FACE OF STUB	REQD	REQUIRED
BLKG	BLOCKING	FDW	FACE OF WALL	SCHED	SCHEDULE
BMU	BRICK MASONRY UNIT	FLEX	FLEXIBLE	SECT	SECTION
B/O	BOTTOM OF	FLR	FLOOR	SH	SHEET
BRKT	BRACKET	FT	FOOT	SHT'G	SHEATHING
BOT	BOTTOM	FTG	FOOTING	SIM	SIMILAR
BTS	BASE TRANSCIEVER STATION	(F)	FUTURE	SQ	SQUARE
CAB	CABINET	FREQ	FREQUENCY	SS	STAINLESS STEEL
CB	CIRCUIT BREAKER	GAUGE	GAUGE	SSD	SEE STRUCTURAL DRAWINGS
CTR	CENTER	GALV	GALVANIZED	STD	STANDARD
CHAN	CHANNEL	GEN	GENERATOR	STL	STEEL
CHAS	CHASSIS	GSKT	GASKET	SYS	SYSTEM
CKT	CIRCUIT	GLB	GLU-LAMINATED BEAM	SW	SWITCH
CL	CENTERLINE	GND	GROUND	TBG	TUBING
CIP	CAST IN PLACE	HDW	HARDWARE	THD	THREAD
CLG	CEILING	HORIZ	HORIZONTAL	THK	THICK
CMW	CONCRETE MASONRY WALL	HGT	HEIGHT	THRU	THROUGH
COL	COLUMN	ID	INSIDE DIAMETER	TNND	TINNED
CONC	CONCRETE	INCL	INCLUDE	T/O	TOP OF
CONTR	CONTRACTOR	LAT	LATITUDE	TOS	TOP OF SLAB
CONN	CONNECTOR	LG	LENGTH	TOW	TOP OF WALL
CONSTR	CONSTRUCTION	LONG	LONGITUDINAL	TS	TUBE STEEL
CNDCT	CONDUCTOR / CONDUCTIVITY	MAX	MAXIMUM	TRH	TRUSS HEAD
CJ	CONSTRUCTION JOINT	MB	MACHINE BOLT	TYP	UNIFORM BUILDING CODE
CND	CONDUIT	MECH	MECHANICAL	UBC	
CONT	CONTINUOUS	MFR	MANUFACTURER	VIF	VERIFY IN FIELD
CRES	CORROSION RESISTANT STEEL	MT	MECHANICAL DOWN-TILT	VERT	VERTICAL
CTR	CENTER	MTD	MOUNTED	W/	WITH
COP OR CU	COPPER	MTG	MOUNTING	W/O	WITHOUT
DBL	DOUBLE	MTR	METER	WD	WIDTH
DC	DIRECT CURRENT	MIN	MINIMUM	V	VOLT
DET	DETAIL	MISC	MISCELLANEOUS	VAC	ALTERNATING CURRENT VOLTS
DEPT	DEPARTMENT	NA OR N/A	NOT APPLICABLE	VAR	VARIABLE
DIA	DIAMETER	NC	NORMALLY CLOSED	VDC	DIRECT CURRENT VOLTS
DIAG	DIAGRAM	NS	NEAR SIDE	VDCW	DIRECT CURRENT WORKING VOLTS
DIM	DIMENSION	NO.	NUMBER	VERN	VERNIER
DISC	DISCONNECT	NTS	NOT TO SCALE	W	WAIT
DN	DOWN	OC	ON CENTER	XMFR	TRANSFORMER
DOC	DOCUMENT	OD	OUTSIDE DIAMETER	XMTR	TRANSMITTER
DWG	DRAWING	PCS	PERSONAL COMMUNICATIONS SYS	2/PH	2 PHASE
ELEC	ELECTRICAL / ELECTRIC	QTY	QUANTITY	2/C	TWO CONDUCTOR
EA	EACH	PR	PAIR	3P	3 POLE
EL	ELEVATION	PREFAB	PREFABRICATED	3T	TRIPLE THROW

ABBREVIATIONS 1

	EXISTING ANTENNA		FLAG NOTE		GROUT OR PLASTER
	GROUND ROD		DETAIL REFERENCE		(E) BRICK
	GROUND BUS BAR		SECTION REFERENCE		(E) MASONRY
	MECHANICAL GND. CONN.		CENTERLINE		CONCRETE
	CADWELD		PROPERTY/LEASE LINE		EARTH
	GROUND ACCESS WELL		MATCH LINE		GRAVEL
	ELECTRIC BOX		WORK POINT		PLYWOOD
	TELEPHONE BOX		GROUND CONDUCTOR		SAND
	LIGHT POLE		TELEPHONE CONDUIT		WOOD CONTINUOUS
	SPOT ELEVATION (DATUM)		ELECTRICAL CONDUIT		WOOD BLOCKING
	REVISION		COAXIAL CABLE		STEEL
	GRID REFERENCE (PLAN ELEVATION SHEETS)		OVERHEAD SERVICE CONDUCTORS		
	ITEM BALLOON		CHAIN LINK FENCING		
	FLAG NOTE (GROUNDING SHEET)		ANTENNA AZIMUTH SYM		

LEGENDS 2

- THE CONTRACTOR SHALL NOTIFY VELOCITEL (WHERE REQUIRED) OF ANY ERRORS, OMISSIONS, OR INCONSISTENCIES AS THEY MAY BE DISCOVERED IN PLANS, DOCUMENTS, NOTES, OR SPECIFICATIONS PRIOR TO STARTING CONSTRUCTION INCLUDING, BUT NOT LIMITED BY, DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERROR, OMISSION, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF VELOCITEL (WHERE REQUIRED) AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE MEANS OF CORRECTING ANY ERROR SHALL FIRST BE APPROVED BY VELOCITEL (WHERE REQUIRED).
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE START OF ANY WORK. DISCREPANCIES WILL BE REPORTED IMMEDIATELY TO VELOCITEL (WHERE REQUIRED). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY THE SUBCONTRACTOR(S).
- A COPY OF GOVERNING AGENCY APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW, SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. THE PLANS ARE NOT TO BE USED BY THE WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION AS GOVERNING AGENCY APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS, IN GOOD CONDITION, COMPLETE WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES UNDER THE DIRECT CARE OF THE SUPERINTENDENT. THE CONTRACTOR SHALL SUPPLY VELOCITEL (WHERE REQUIRED), WITH A COPY OF ALL REVISIONS, ADDENDA, AND/OR CHANGE ORDERS AT THE CONCLUSION OF THE WORK AS A PART OF THE AS-BUILT DRAWING RECORDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE PROJECT AND SITE WHILE THE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE.
- THE CONTRACTOR HAS THE RESPONSIBILITY OF LOCATING ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLANS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR, OR SUBCONTRACTOR AS SPECIFIED IN THE AGREEMENT BETWEEN SUBCONTRACTOR AND CONTRACTOR, SHALL BEAR THE EXPENSES OF REPAIR AND/OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGE BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.
- THE REFERENCES ON THE DRAWINGS ARE FOR CONVENIENCE ONLY AND SHALL NOT LIMIT THE APPLICATION OF ANY DRAWING OR DETAIL.
- ALL CONSTRUCTION THROUGHOUT THE PROJECT SHALL CONFORM TO TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS, EXCEPT WHERE EXEMPTED.
- ALL GLASS AND GLAZING IS TO COMPLY WITH CHAPTER 54 OF THE U.S. CONSUMER SAFETY COMMISSION: SAFETY STANDARDS FOR ARCHITECTURAL GLAZING MATERIALS (42 FR 1428, CFR PART 201) AND LOCAL SECURITY REQUIREMENTS.
- ALL EXISTING CONSTRUCTION, EQUIPMENT, AND FINISHES NOTED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE REMOVED FROM THE SITE WITH THE FOLLOWING EXCEPTIONS:
A. PROPERTY NOTED TO BE RETURNED TO THE OWNER.
B. PROPERTY NOTED TO BE REMOVED BY THE OWNER.
- THE GOVERNING AGENCIES, CODE AUTHORITIES, AND BUILDING INSPECTORS SHALL PROVIDE THE MINIMUM STANDARDS FOR CONSTRUCTION TECHNIQUES, MATERIALS, AND FINISHES USED THROUGHOUT THE PROJECT. TRADE STANDARDS AND/OR PUBLISHED MANUFACTURERS SPECIFICATIONS MEETING OR EXCEEDING DESIGN REQUIREMENTS SHALL BE USED FOR INSTALLATION.
- DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCE. VELOCITEL (WHERE REQUIRED) IS NOT RESPONSIBLE FOR ANY ERRORS RESULTING FROM THIS PRACTICE WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS.
- PRIOR TO THE POURING OF ANY NEW SLAB OVER AN EXISTING SLAB THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, CHASES, AND EQUIPMENT WHICH ARE TO BE IMPLEMENTED INTO THE NEW WORK. ALL ITEMS DESIGNATED TO BE ABANDONED SHALL BE NOTED AND DISCUSSED WITH THE OWNER AND VELOCITEL (WHERE REQUIRED) AS PART OF THE AS-BUILT DRAWING PACKAGE.
- BUILDING INSPECTORS AND/OR OTHER BUILDING OFFICIALS ARE TO BE NOTIFIED PRIOR TO ANY GRADING, CONSTRUCTION, AND ANY OTHER PROJECT EFFORT AS MANDATED BY THE GOVERNING AGENCY.
- OWNER, CONTRACTOR, AND DESIGN ENGINEER (WHERE REQUIRED) SHALL MEET JOINTLY TO VERIFY ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION.
- THE PROJECT, WHEN COMPLETED, SHALL COMPLY WITH LOCAL SECURITY CODES AND TITLE-24 ENERGY CONSERVATION REQUIREMENTS. (TITLE-24 WHEN APPLICABLE)
- NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL MATCH IN FORM, TEXTURE, FINISH, AND IN MATERIALS EXCEPT AS NOTED IN THE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BACKING, BLOCKING, AND/OR SLEEVES REQUIRED FOR THE INSTALLATION OF FIXTURES, MECHANICAL EQUIPMENT, PLUMBING, HARDWARE, AND FINISH ITEMS TO INSURE A PROPER AND COMPLETE JOB.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A PROJECT LEVEL, STRAIGHT, AND TRUE ACCORDING TO THE PLANS. THE CONTRACTOR SHALL COMPARE THE LINES AND LEVELS OF THE EXISTING CONDITIONS WITH THOSE SHOWN ON THE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. VELOCITEL (WHERE REQUIRED) SHALL BE NOTIFIED OF ANY ERRORS, OMISSIONS, OR INCONSISTENCIES PRIOR TO ANY CONSTRUCTION.
- THE CONTRACTOR IS TO PROVIDE PROTECTION FOR ADJOINING PROPERTIES FROM PHYSICAL HARM, NOISE, DUST, DIRT, AND FIRE AS REQUIRED BY THE GOVERNING AGENCIES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE STORAGE OF ALL MATERIALS AND SHALL NOT DO SO ON PUBLIC PROPERTY WITHOUT A PERMIT TO DO SO FROM THE GOVERNING AGENCIES FOR THIS PURPOSE.

GENERAL NOTES 3

- GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE.
- TRADES INVOLVED IN THE PROJECT SHALL BE RESPONSIBLE FOR THEIR OWN CUTTING, FITTING, PATCHING, ETC., SO AS TO BE RECEIVED PROPERLY BY THE WORK OF OTHER TRADES.
- DESIGN ENGINEER (WHERE REQUIRED) DOES NOT GUARANTEE ANY PRODUCTS, FIXTURES, AND/OR ANY EQUIPMENT NAMED BY A TRADE OR MANUFACTURER. GUARANTEE OR WARRANTY THAT MAY BE IN EFFECT IS DONE SO THROUGH THE COMPANY OR MANUFACTURER PROVIDING THE PRODUCT, FIXTURE, AND/OR EQUIPMENT ONLY; UNLESS SPECIFIC RESPONSIBILITY IS ALSO PROVIDED BY THE CONTRACTOR/SUBCONTRACTOR IN WRITTEN FORM.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REMEDY ALL FAULTY, INFERIOR, AND/OR IMPROPER MATERIALS, DAMAGED GOODS, AND/OR FAULTY WORKMANSHIP FOR ONE (1) YEAR AFTER THE PROJECT IS COMPLETE AND ACCEPTED UNDER THIS CONTRACT; UNLESS NOTED OTHERWISE IN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR. (EXCEPTION) THE ROOFING SUBCONTRACTOR SHALL FURNISH A MAINTENANCE AGREEMENT FOR ALL WORK DONE, COSIGNED BY THE GENERAL CONTRACTOR, TO MAINTAIN THE ROOFING IN A WATERTIGHT CONDITION FOR A PERIOD OF TWO (2) YEARS STARTING AFTER THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT, UNLESS OTHERWISE WRITTEN IN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION FOR THE SAFETY OF THE OWNER'S EMPLOYEES, WORKMEN, AND ALL TIMES DURING THE CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR SHALL BE REQUIRED TO PAY FOR ALL NECESSARY PERMITS AND/OR FEES WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT. BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR HIS REPRESENTATIVE. CONTRACTOR SHALL OBTAIN PERMIT AND MAKE FINAL PAYMENT FOR SAID DOCUMENT.
- THE ARCHITECT/ENGINEER IN CHARGE SHALL SIGN AND SEAL ALL DRAWINGS AND/OR SPECIFICATIONS.
- FIRE EXTINGUISHER REQUIREMENTS SHALL BE VERIFIED WITH THE LOCAL FIRE MARSHALL.
- DESIGN ENGINEER (WHERE REQUIRED) WILL REVIEW AND APPROVE SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH DESIGN CONCEPT. DESIGN ENGINEER (WHERE REQUIRED) PROJECT APPROVAL OF A SEPARATE ITEM SHALL NOT INCLUDE APPROVAL OF AN ASSEMBLY IN WHICH THE ITEM FUNCTIONS.
- CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO PLACEMENT OF MONOPOLE FOOTING AND OTHER STRUCTURES TO BE PLACED IN GROUND. SEE GENERAL NOTE #6 ON THIS SHEET.
- SEE CIVIL DRAWINGS FOR ADDITIONAL SITE INFORMATION.
- ALL ANTENNAS MOUNTED ON ROOF SUPPORT FRAMES TO BE PROVIDED BY CARRIER COMMUNICATIONS.
- CONTRACTOR TO PROVIDE TRENCH AS REQUIRED TO INSTALL BOTH ELECTRICAL AND TELEPHONE UNDERGROUND CONDUITS (#40 PVC) PER UTILITY COMPANY.
- CONTRACTOR TO MAINTAIN EXISTING SURFACE DRAINAGE SLOPES.
- CONTRACTOR TO REPLACE LANDSCAPE VEGETATION THAT WAS DAMAGED DUE TO CONSTRUCTION, AND TO MODIFY REMAINING IRRIGATION LINES TO OPERATING CONDITION, PROVIDING FULL COVERAGE TO IMPACTED AREAS.
- CONTRACTOR TO PROVIDE AND INSTALL TREE AND LANDSCAPING PROTECTIVE MEASURES AROUND ALL ADJACENT AREAS OF CONSTRUCTION, AND INSPECT SUCH AREAS PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL PROTECTIVE MEASURES.
- CONTRACTOR TO PROVIDE TRAFFIC CONTROL AND OR FLAGMEN DURING MOVE-ON AND MOVE-OUT OF ANY AND ALL MATERIALS AND OR EQUIPMENT.

CFC ARTICLE 64 COMPLIANCE DATA
STATIONARY LEAD - ACID BATTERY SYSTEMS
HAWKER SES C11 (12V, 120ah) BATTERY

TOTAL LIQUID VOLUME	NSB. 100. FT. (6) CELLS	RBS CABINET (18) BATTERIES	TOTAL
ELECTROLYTE BY VOLUME	1.2 GALLONS	21.6 GALLONS	21.6 GALLONS
PURE H ₂ SO ₄ (SULFURIC ACID) BY VOLUME	.84 GALLONS	11.52 GALLONS	1.52 GALLONS
"FREE" LIQUID VOLUME ¹			
"FREE" ELECTROLYTE BY VOLUME	.06 GALLONS	1.08 GALLONS	1.08 GALLONS
PURE H ₂ SO ₄ BY VOLUME	.04 GALLONS	.72 GALLONS	.72 GALLONS

- "FREE" ELECTROLYTE AND / OR ACID IS THE AMOUNT OF FLUID THAT IS NOT ABSORBED IN THE GLASS MATTES BETWEEN THE LEAD PLATES. THIS IS THE AMOUNT OF ELECTROLYTE OR ACID THAT MAY SPILL IN THE EVENT OF A PUNCTURE OF THE BATTERY. EACH BATTERY HAS SIX INDIVIDUAL CELLS AND THE BATTERY IS ENCASED IN BOTH A BATTERY JAR AND A PROTECTIVE METAL CAN MAKING PUNCTURE EXTREMELY UNLIKELY.
- BASED UPON CFC ARTICLE 64, SECTION 6401, THIS BATTERY SYSTEM AS DETAILED IN THE ABOVE CHART HAS LIQUID CAPACITIES SUBSTANTIALLY BELOW THE THRESHOLD OF 20 GALLONS PER BATTERY AND 100 GALLONS TOTAL SYSTEM. THEREFORE THE FURTHER SECTIONS OF ARTICLE 64 AND OF ARTICLE 80 DO NOT APPLY TO THIS SYSTEM.

SITE ENVIRONMENTAL INFORMATION 4

APPLICANT/OWNER

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PREPARED BY:

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5	1/4/11	REDESIGNED & REISSUED FOR 90% CONSTRUCTION	RBN
6			
7			
8			

PROJECT LOCATION

AT&T FA# 10547062
AT&T SITE # CC1431/CCU1431/CCU1432 (CW093)

ST MARY'S COLLEGE
1928 ST MARY'S ROAD
MORAGA, CA 94556

DRAWN BY: RYAN NIEDZWECKI

CHECKED BY: SKIP TONNER

DRAWING DESCRIPTION:

GENERAL NOTES, LABELS, SPECIAL INSPECTIONS & ABBREVIATIONS

DRAWING NUMBER: **C-2**

S:\AT&T PROJECTS\CW093 - ST. MARY'S COLLEGE\10 - DRAWINGS\CW093 - ST. MARY'S COLLEGE CD.DWG, RYAN NIEDZWECKI, 12/30/2010

GENERAL CONSTRUCTION NOTES:

1. PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
2. THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
3. CONTRACTOR SHALL CONTACT USA (UNDERGROUND SERVICE ALERT,) AT (800) 227-2600, FOR UTILITY LOCATIONS, 48 HRS BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
4. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE UBC'S REQUIREMENTS REGARDING EARTHQUAKE RESISTANCE, FOR, BUT NOT LIMITED TO, PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS, AND MECHANICAL EQUIPMENT. ALL WORK MUST COMPLY WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
6. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWING, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT/ENGINEER.
7. THE BUILDING DEPARTMENT ISSUING THE PERMITS SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK, OR AS OTHERWISE STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.
8. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
9. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS, OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTORS SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
10. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTALLY AND VERTICALLY, PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE.
11. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
12. ANY DRAIN AND/OR FIELD TILE ENCOUNTERED/DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS-BUILT" DRAWINGS BY GENERAL CONTRACTOR, AND ISSUED TO ARCHITECT/ENGINEER AT COMPLETION OF PROJECT.
13. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
14. INCLUDE MISC. ITEMS PER VELOCITEL SPECIFICATIONS.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 338. ASTM A184 ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR "AS-BUILT" CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615. GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD. UNO.
4. THE MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST EARTH ... 3 IN. CONCRETE EXPOSED TO EARTH OR WEATHER:
 #6 AND LARGER ... 2 IN.
 #5 AND SMALLER & WWF. 1-1/2 IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
 SLAB AND WALL ... 3/4" IN.
 BEAMS AND COLUMNS ... 1-1/2" IN.
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO. IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR. SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. EXPANSION BOLTS SHALL BE PROVIDED BY RAM SET/REDHEAD OR APPROVED EQUAL UNLESS NOTED OTHERWISE. SPECIAL INSPECTIONS. WHEN REQUIRED BY GOVERNING CODES. SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.

APPLICABLE CODES, REGULATIONS AND STANDARDS:

SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION.

THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE:
 [UNIFORM BUILDING CODE (UBC), 2001 AS ADOPTED BY 2007 CALIFORNIA BUILDING CODE]

FIRE CODE:
 [UNIFORM BUILDING CODE (UBC), 1997 AS ADOPTED BY 2007 CALIFORNIA FIRE CODE]

ELECTRICAL CODE:
 [NATIONAL ELECTRICAL CODE (NEC), 2002 AS ADOPTED BY 2004 CALIFORNIA ELECTRICAL CODE]

PLUMBING CODE:
 [UNIFORM PLUMBING CODE (UPC), 2001 AS ADOPTED BY 2001 CALIFORNIA PLUMBING CODE]

MECHANICAL CODE:
 [UNIFORM MECHANICAL CODE (UMC), 2001 AS ADOPTED BY 2001 CALIFORNIA MECHANICAL CODE]

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

- AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION(AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION
- TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES
- INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT
- IEEE C82.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")
- TIA 807 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS TELCORDIA GR-63 NETWORK EQUIPMENT-BUILDING SYSTEM (NEBS):
 PHYSICAL PROTECTION
 TELCORDIA GR-347 CENTRAL OFFICE POWER WIRING
 TELCORDIA GR-1275 GENERAL INSTALLATION REQUIREMENTS
 TELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS

ANY AND ALL OTHER LOCAL & STATE LAWS & REGULATIONS

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

APPLICANT/OWNER:



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 4430 ROSEWOOD DR
 PLEASANTON, CA 94588

PREPARED BY:



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1	12/7/10	REISSUED FOR 90% CONSTRUCTION	RBN
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3	12/29/10	REDESIGNED & REISSUED FOR 90% PERMITTING	RBN
4	12/29/10	REDESIGNED & REISSUED FOR 100% PERMITTING	RBN
5	1/4/11	REDESIGNED & REISSUED FOR 90% CONSTRUCTION	RBN
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8			

PROJECT LOCATION

AT&T FAX: 10547062
AT&T SITE #: CC1431/CCU1431 /CCU1432 (CW093)
ST MARY'S COLLEGE
 1928 ST MARY'S ROAD
 MORAGA, CA 94558

DRAWN BY: RYAN NIEDZWECKI

CHECKED BY: SKIP TONNER

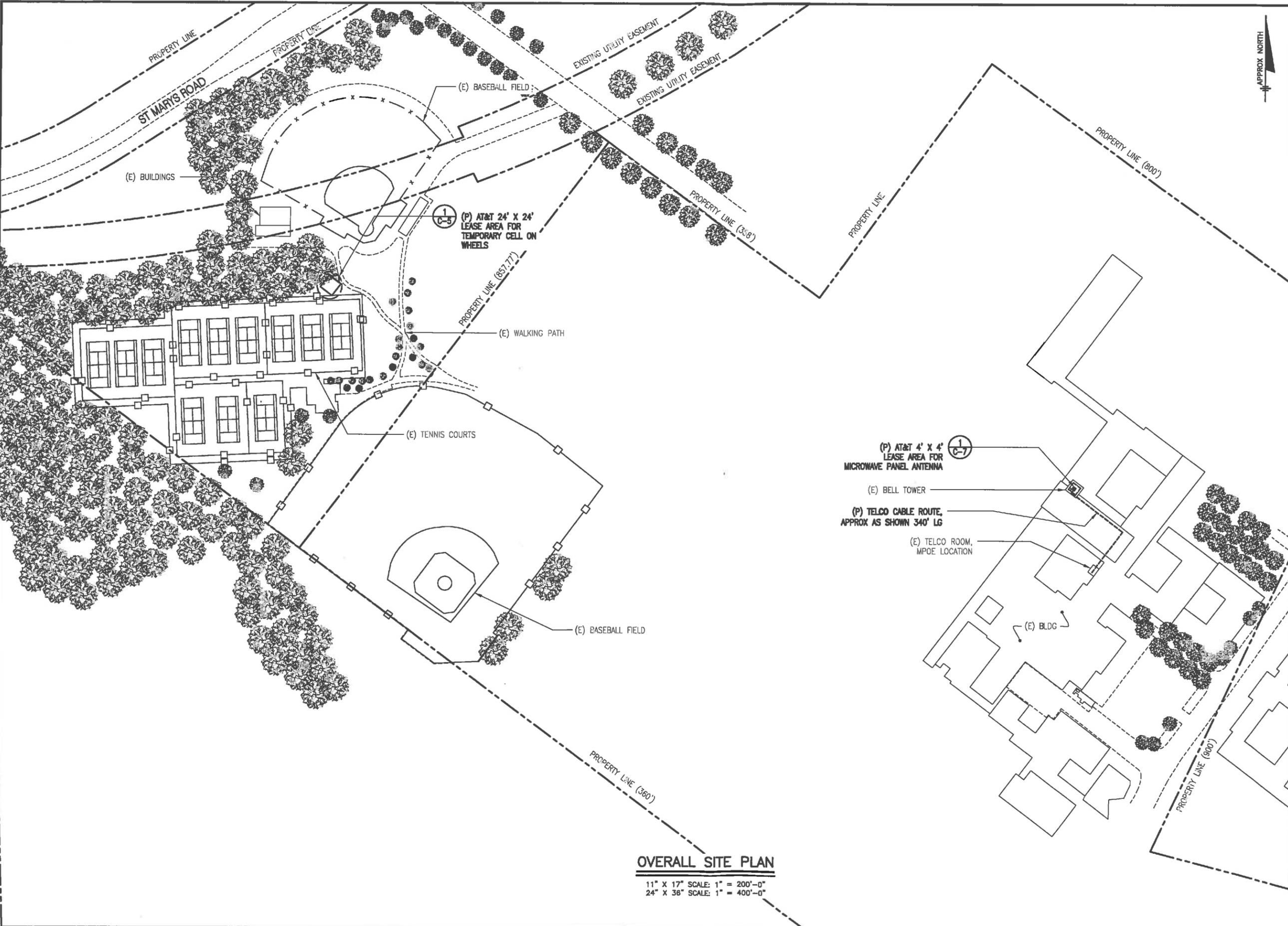
DRAWING DESCRIPTION:

GENERAL NOTES

DRAWING NUMBER:

C-3

S:\AT&T PROJECTS\CW083 - ST MARY'S COLLEGE\10 - DRAWINGS\CW083 - ST MARY'S COLLEGE CD.DWG, RYAN NIEDZWECKI, 12/30/2010



OVERALL SITE PLAN

11" X 17" SCALE: 1" = 200'-0"
 24" X 36" SCALE: 1" = 400'-0"



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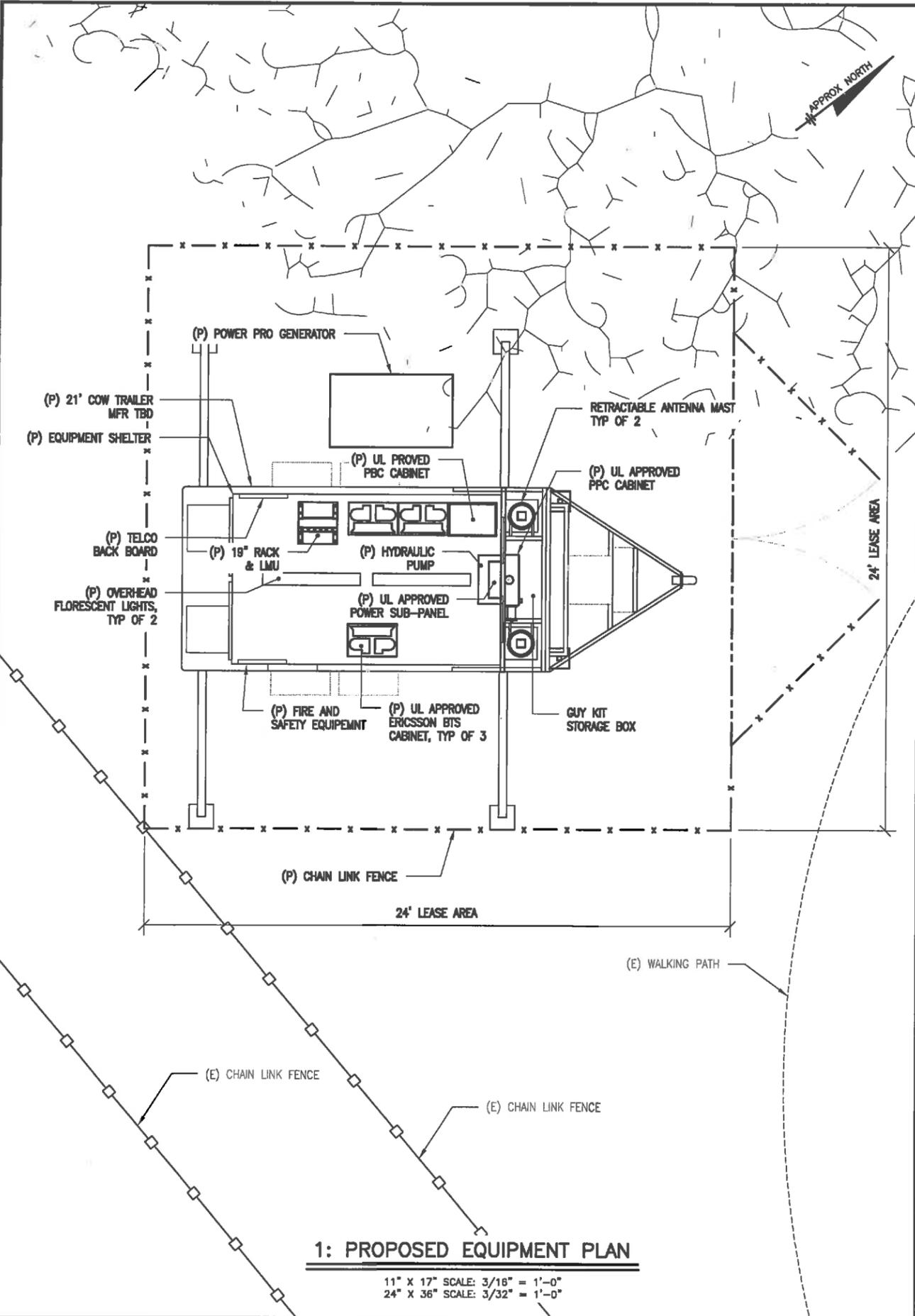
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AT&T FAX: 10547062
AT&T SITE #: CC1431/CCU1431 /CCU1432 (CW083)
ST MARY'S COLLEGE
 1928 ST MARY'S ROAD
 MORAGA, CA 94556

DRAWN BY: RYAN NIEDZWECKI
 CHECKED BY: SKIP TONNER

DRAWING DESCRIPTION:
OVERALL SITE PLAN

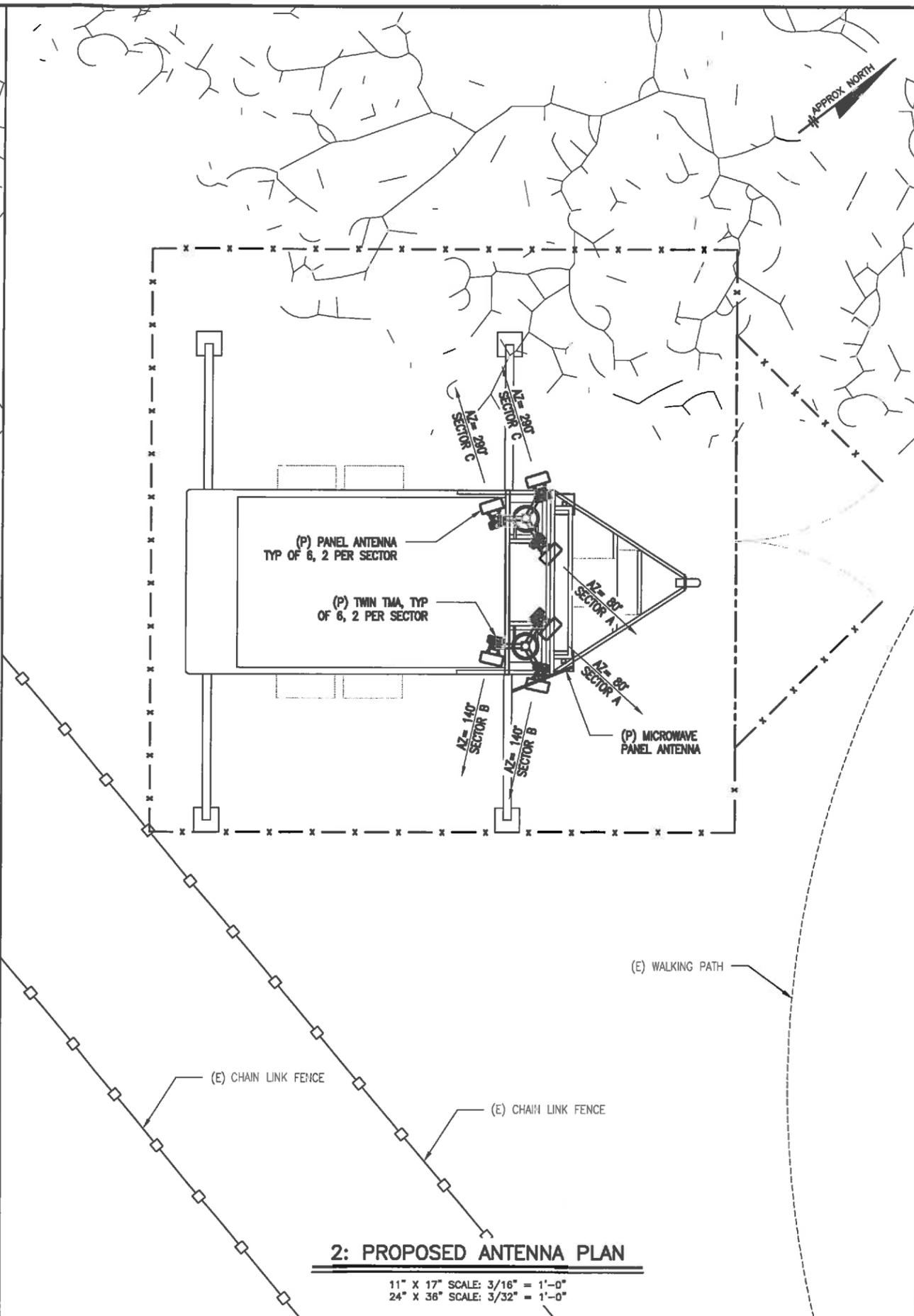
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1: PROPOSED EQUIPMENT PLAN

11" X 17" SCALE: 3/16" = 1'-0"
24" X 36" SCALE: 3/32" = 1'-0"



2: PROPOSED ANTENNA PLAN

11" X 17" SCALE: 3/16" = 1'-0"
24" X 36" SCALE: 3/32" = 1'-0"

APPLICANT/OWNER:

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DRAWN BY: RYAN NIEDZWECKI
CHECKED BY: SKIP TONNER

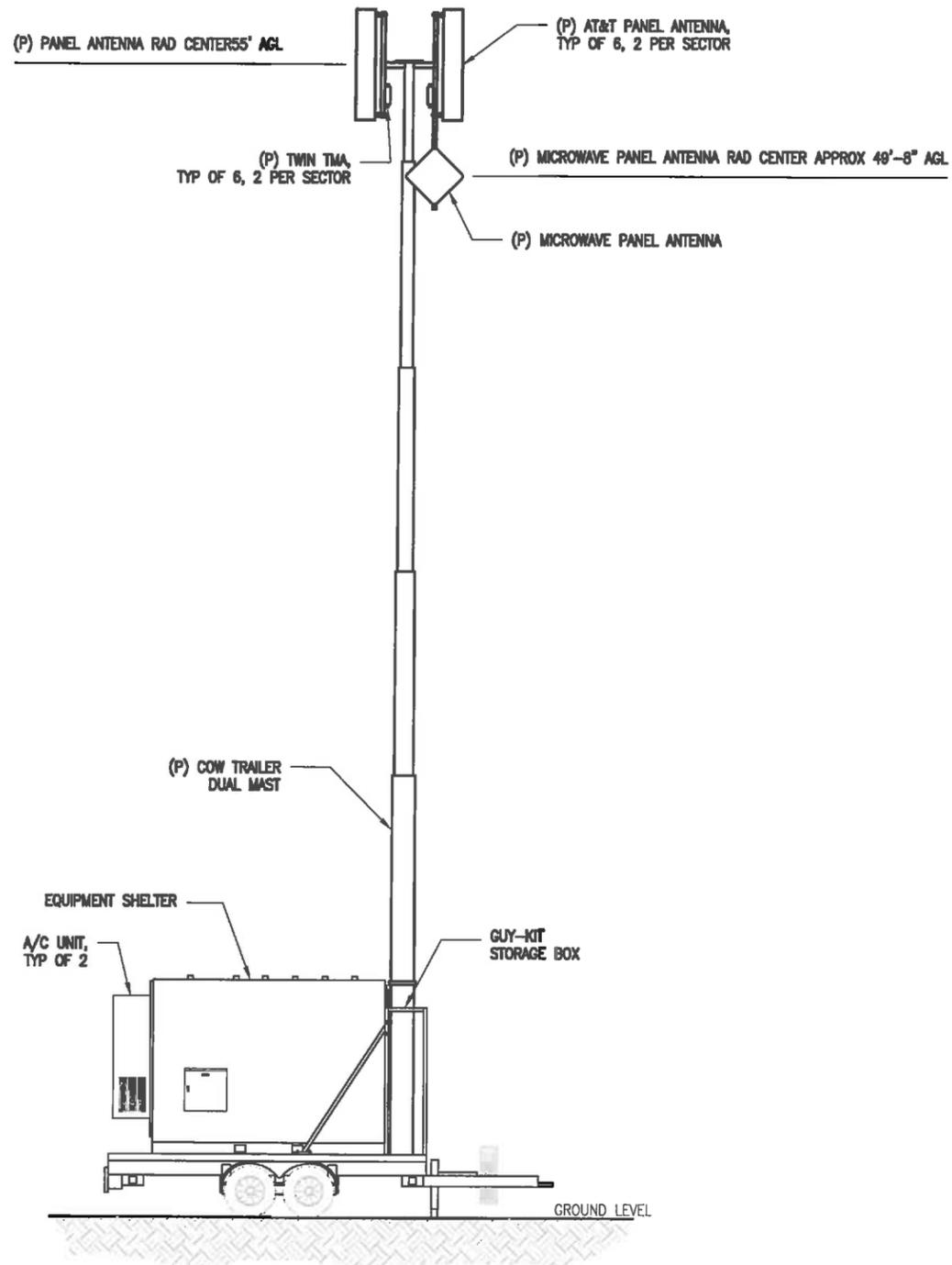
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ENLARGED SITE PLAN

DRAWING NUMBER:
C-5

S:\AT&T PROJECTS\CW093 - ST MARY'S COLLEGE\10 - DIMMINGS\CD'S\CW093 - ST MARY'S COLLEGE CD.DWG, RYAN NIEDZWECKI, 12/30/2010

NOTES: (UNLESS OTHERWISE SPECIFIED)

- SOME EQUIPMENT LOCATED ON COW ARE NOT SHOWN FOR CLARITY. SEE C-5 FOR LOCATIONS.

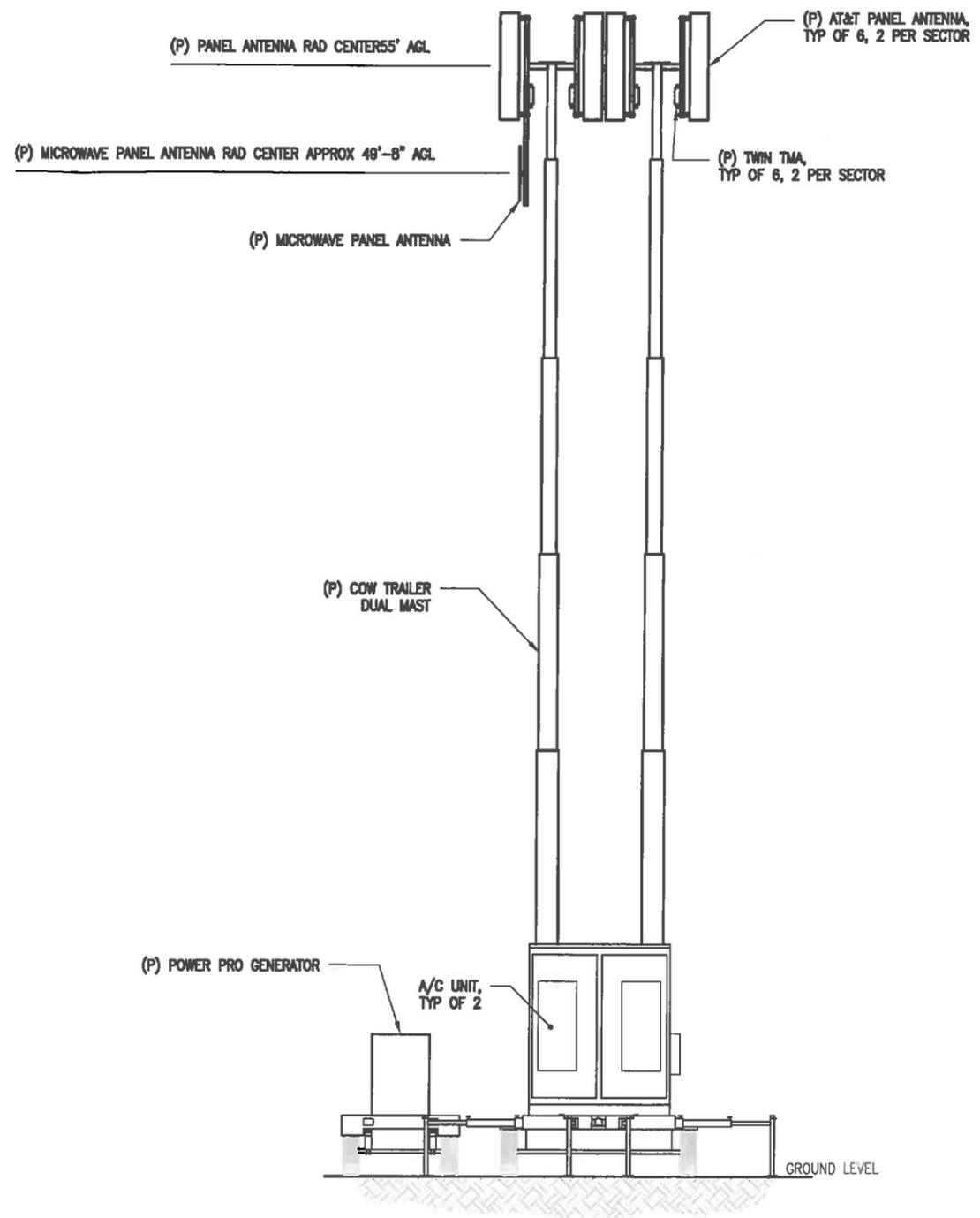


1: PROPOSED SOUTH EAST ELEVATION

11" X 17" SCALE: 1/8" = 1'-0"
24" X 36" SCALE: 1/16" = 1'-0"

NOTES: (UNLESS OTHERWISE SPECIFIED)

- SOME EQUIPMENT LOCATED ON COW ARE NOT SHOWN FOR CLARITY. SEE C-5 FOR LOCATIONS.



2: PROPOSED NORTH EAST ELEVATION

11" X 17" SCALE: 1/8" = 1'-0"
24" X 36" SCALE: 1/16" = 1'-0"

APPLICANT/OWNER:

AT&T
4430 ROSEWOOD DR
PLEASANTON, CA 94588

PREPARED BY:

complete wireless solutions

VELOCITEL, INC.
6600 KOLL CENTER PKWY SUITE 150
PLEASANTON, CA 94566
OFFICE: (925) 931-9011

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A	10/10/10	ISSUED FOR 100% PERMITTING	CMN
0	11/18/10	ISSUED FOR 90% CONSTRUCTION	RBN
1	12/7/10	REISSUED FOR 90% CONSTRUCTION	RBN
2	12/8/10	ISSUED FOR 100% CONSTRUCTION	RBN
3	12/29/10	REDESIGNED & REISSUED FOR 90% PERMITTING	RBN
4	12/29/10	REDESIGNED & REISSUED FOR 100% PERMITTING	RBN
5	1/4/11	REDESIGNED & REISSUED FOR 90% CONSTRUCTION	RBN
6			
7			
8			

PROJECT LOCATION

AT&T FA#: 10547062
AT&T SITE #: CC1431/CCU1431 /CCU1432 (CW093)

ST MARY'S COLLEGE

1928 ST MARY'S ROAD
MORAGA, CA 94556

DRAWN BY: RYAN NIEDZWECKI

CHECKED BY: SKIP TONNER

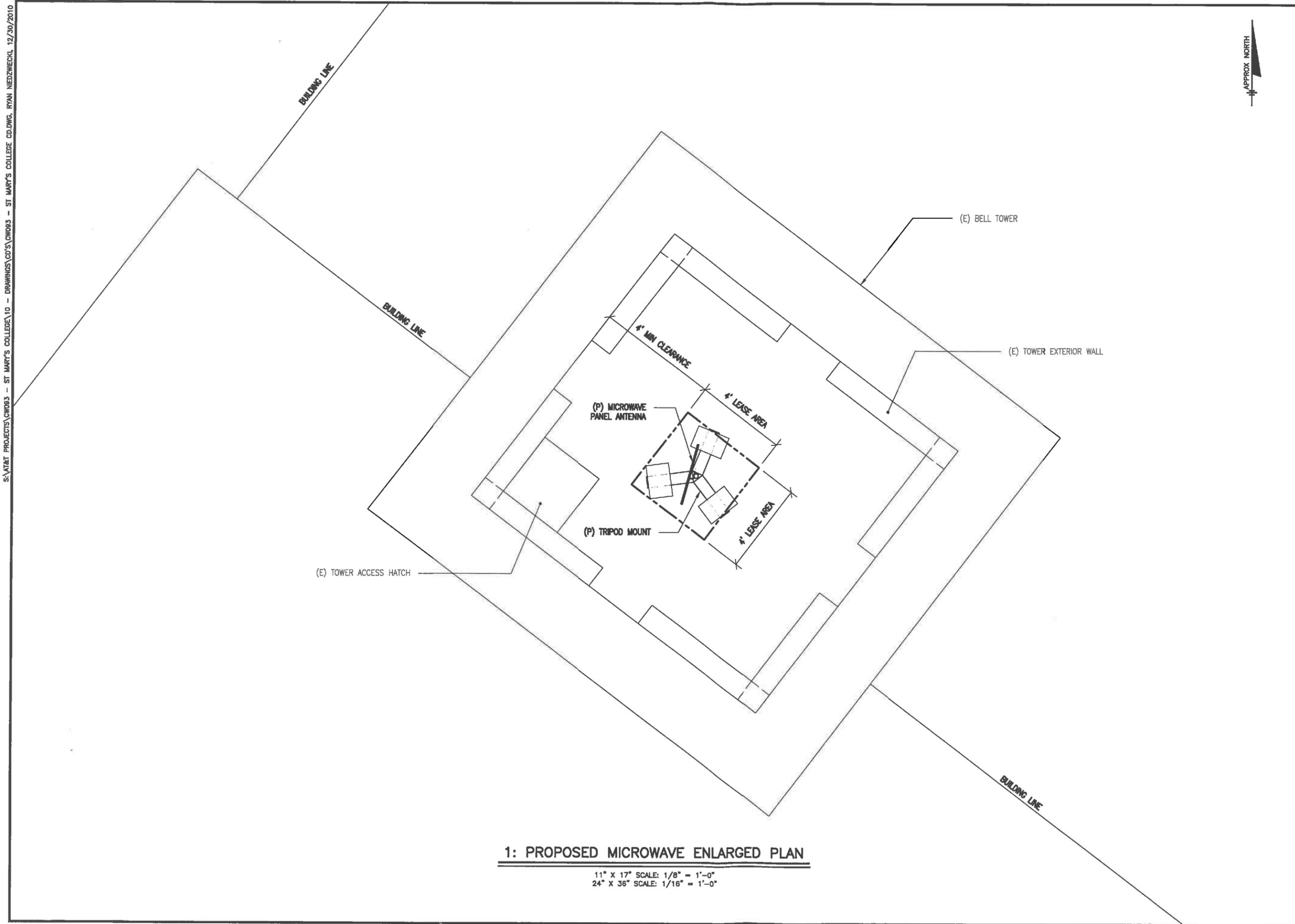
DRAWING DESCRIPTION:

PROPOSED
SITE ELEVATIONS

DRAWING NUMBER:

C-6

S:\AT&T PROJECTS\CW093 - ST MARY'S COLLEGE\10 - DRAWINGS\CDS\CW093 - ST MARY'S COLLEGE CD.DWG, RYAN NIEDZWECKI, 12/30/2010



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 1928 ST MARY'S ROAD
 MORAGA, CA 94556

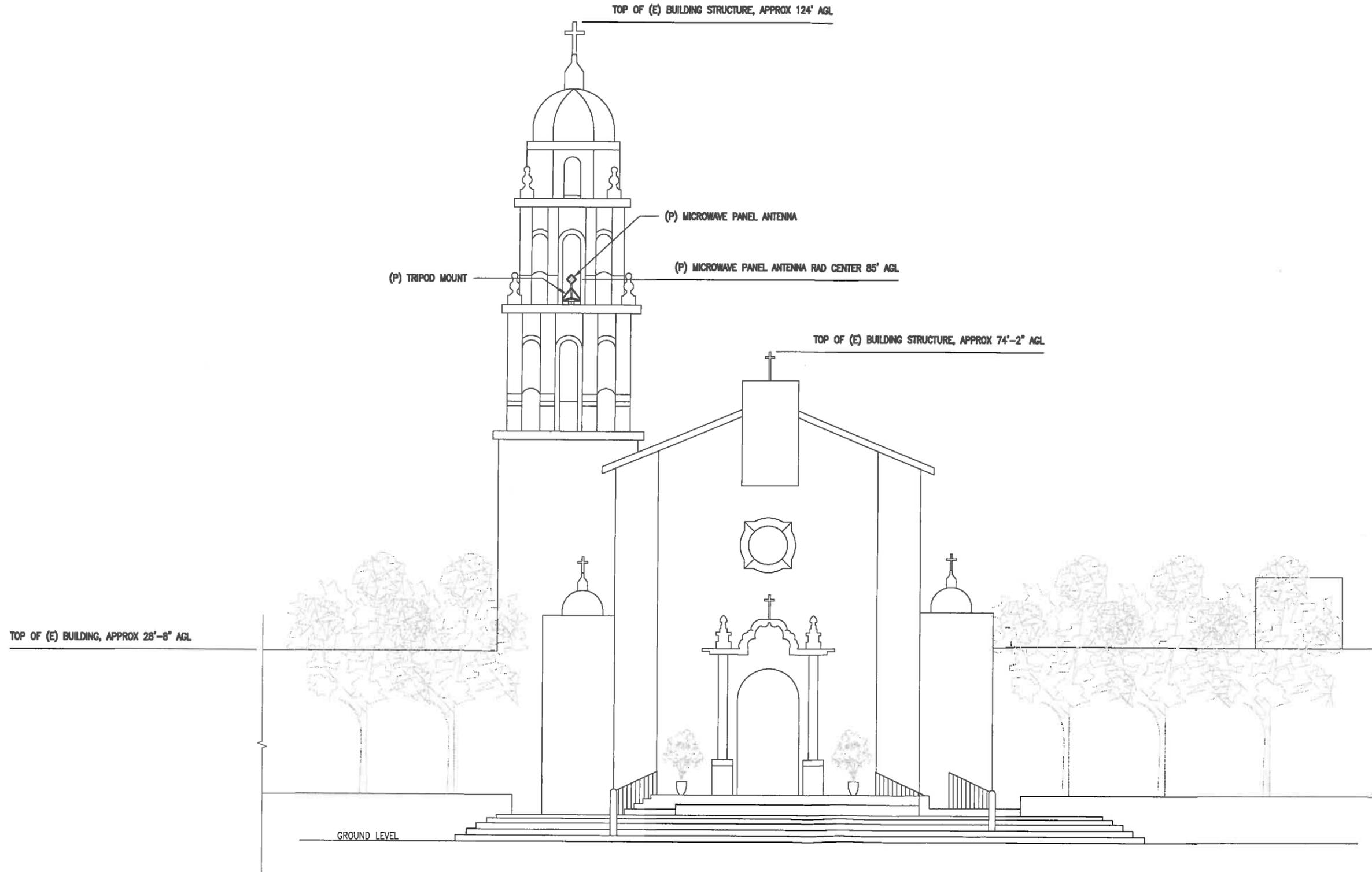
DRAWN BY: RYAN NIEDZWECKI
 CHECKED BY: SKIP TONNER

DRAWING DESCRIPTION:
 PROPOSED MICROWAVE ENLARGED PLAN

DRAWING NUMBER:
C-7

1: PROPOSED MICROWAVE ENLARGED PLAN
 11" X 17" SCALE: 1/8" = 1'-0"
 24" X 36" SCALE: 1/16" = 1'-0"

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1: PROPOSED MICROWAVE ELEVATION

11" X 17" SCALE: 1/16" = 1'-0"
 24" X 36" SCALE: 1/32" = 1'-0"



AT&T
 4430 ROSEWOOD DR
 PLEASANTON, CA 94588



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 1928 ST MARY'S ROAD
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DRAWN BY: RYAN NIEDZWECKI

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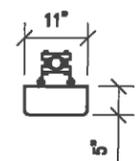
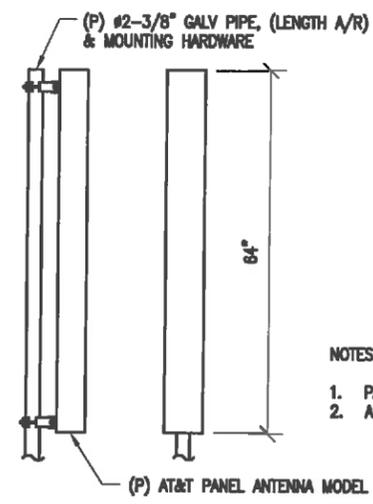
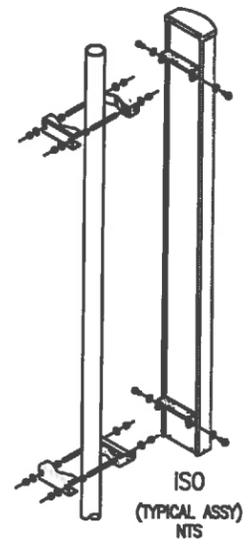
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PROPOSED MICROWAVE ELEVATION

DRAWING NUMBER:

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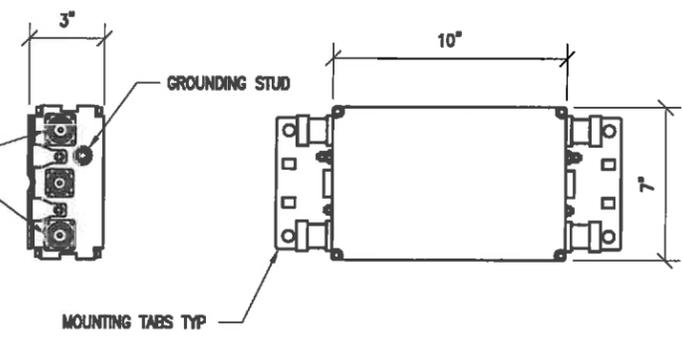
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NOTES: (UNLESS OTHERWISE SPECIFIED)
 1. PAINT TO MATCH AS REQUIRED.
 2. ANTENNAS TO BE GROUNDED PER MFR SPECS.

NOTES: (UNLESS OTHERWISE SPECIFIED)
 1. DO NOT PAINT TMA.
 2. INSTALL PER MANUFACTURERS SPECS.
 3. GROUND TMA PER GROUNDING SPECS.

CONNECTORS FOR XMTR/RCVR CABLES, SEE RF ENGINEERING DIAGRAM FOR INTERCONNECTION DETAILS



AWS FULL BAND TWIN TMA

APPLICANT/OWNER:

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 PLEASANTON, CA 94588

PREPARED BY:

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PROPOSED UL APPROVED PANEL ANTENNA

SCALE 11" X 17" SCALE: 3/8" = 1'-0"
 24" X 36" SCALE: 3/16" = 1'-0"

1

PROPOSED UL APPROVED TWIN TMA DETAIL

SCALE 11" X 17" SCALE: 1-1/2" = 1'-0"
 24" X 36" SCALE: 3/4" = 1'-0"

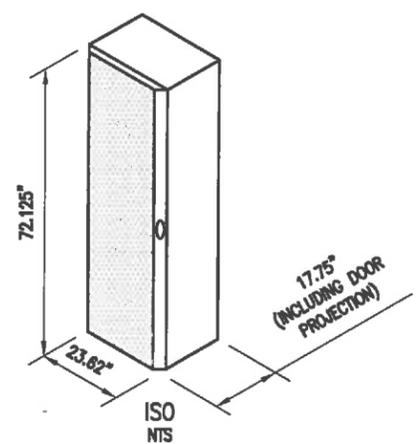
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NOT USED

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NOT USED

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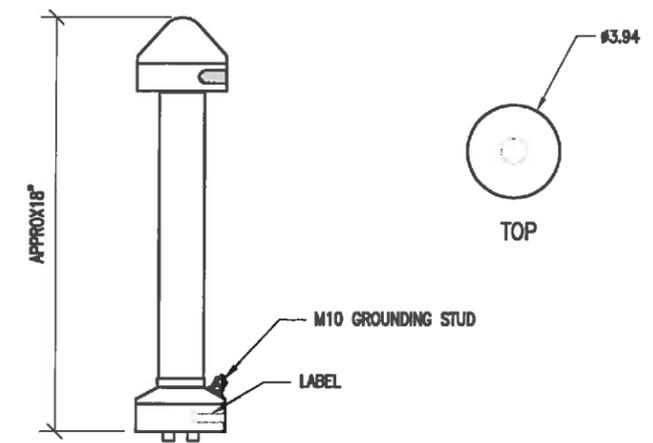


ERICSSON INDOOR DIMENSIONS	
CABINET	DEPTH X WIDTH X HEIGHT
INDOOR BTS CABINET	15.75" X 23.62" X 72.83" (400mm X 600mm X 1850mm)
INDOOR BASE	15.75" X 23.62" X 3.00" (400mm X 600mm X 76mm)
BBU (BATTERY BACK-UP)	16.00" X 28.00" X 63.00" (406mm X 711mm X 1600mm)

NOTE: SEISMIC ZONE 3 & 4 ANCHORING SPECIFICATIONS SHALL BE PROVIDED BY ERICSSON.

ERICSSON INDOOR WEIGHT & FLOOR LOADING		
CABINET	APPROX MAX. WEIGHT	MAX. FLOOR LOADING
INDOOR BTS CABINET	507 LBS (230 KG)	196 LBS/FT ² (889 KG/M ²)
BBU (BATTERY BACK-UP)	1433 LBS (650 KG)	480 LBS/FT ² (2086 KG/M ²)

ERICSSON INDOOR MINIMUM CLEARANCES	
DIRECTION	MINIMUM CLEARANCE
CABINET REAR AND WALL	0" (0mm)
CABINET RIGHT/LEFT SIDE AND WALL	0" (0mm)
ABOVE THE CABINET	18" (457mm)
IN FRONT OF THE CABINET	36" (914mm)



PROPOSED UL APPROVED BTS CABINET

SCALE 11" X 17" SCALE: 1" = 1'-0"
 24" X 36" SCALE: 1/2" = 1'-0"

5

PROPOSED UL APPROVED GPS ANTENNA

SCALE 11" X 17" SCALE: 1-1/2" = 1'-0"
 24" X 36" SCALE: 3/4" = 1'-0"

6

PROJECT LOCATION
AT&T FA#: 10547062
AT&T SITE #: CC1431/CCU1431 /CCU1432 (CW093)
ST MARY'S COLLEGE
 1928 ST MARY'S ROAD
 MORAGA, CA 94556

DRAWN BY: RYAN NIEDZWECKI
 CHECKED BY: SKIP TANNER

DRAWING DESCRIPTION:
 DETAIL SHEET

DRAWING NUMBER:
C-9

	FLUORESCENT FIXTURE AND OUTLET. TYPE AS INDICATED IN DUPLEX RECEPTACLE OUTLET. FLUSH IN CEILING.
	FIXTURES WITH SHADING SHALL BE CONNECTED TO EMERGENCY POWER SOURCE. LIGHTALARMS #1M12, 1100 LUMEN OUTPUT BATTERY PACK OR APPROVED EQUAL.
	OUTLET BOX WITH FLEXIBLE CONDUIT CONNECTION TO FIXTURE.
	EMERGENCY LIGHTING FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	SAFETY SWITCH WITH NUMBER OF POLES AND RATING AS REQUIRED. NEMA-3R ENCLOSURE IF LOCATED OUTDOORS.
	FUSIBLE SAFETY SWITCH WITH NUMBER OF POLES AND RATING AS REQUIRED. NEMA-3R ENCLOSURE IF LOCATED OUTDOORS. PROVIDE FUSES SIZED AT 125% OF FLA UON
	JUNCTION BOX.
	ELECTRIC BOX
	TELEPHONE BOX
	PULL BOX
	#5/8" X 10'-0" COPPER, OR COPPER CLAD STEEL, GROUND ROD, PLACED EVERY 10'-0" OC (MAX)
	GROUND ROD INSPECTION WELL
	SOLID NEUTRAL TERMINAL BUS
	PHASE A TERMINAL LUG
	GROUND TERMINAL BUS
	KEY OPERATED DISCONNECT SWITCH, 120V
	TWIST LOCK MALE RECEPTACLE, 30A, 120-240V NEMA L-14 IN WEATHER PROOF BOX AND COVER
	DUPLEX RECEPTACLE W/ GROUND FAULT, 120V, 2P, 3W
	LIGHT FIXTURE, WEATHER PROOF
	MANUAL TRANSFER SWITCH
	CONNECTION TO GROUNDING ELECTRODE SYSTEM
	FUSES
	CIRCUIT BREAKER.
	TRANSFORMER (AIR CORE)
	TRANSFORMER (IRON CORE)
	RELAY OR CONTACTOR COIL
	NORMALLY OPEN CONTACTS.
	NORMALLY CLOSED CONTACTS.
	CONCEALED RACEWAY IN WALLS OR CEILING WITH NEUTRAL, HOT, SWITCHED AND GROUND CONDUCTORS RESPECTIVELY.
	HOME RUN TO PANEL BOARD WITH CIRCUIT NUMBERS AS INDICATED.
	CONDUIT STUBBED AND CAPPED OR BUSHED.
	CONDUIT STUB UP / DOWN
	CONDUIT
	ELECTRICAL CONDUIT
	GROUND CABLE
	TELEPHONE CONDUIT, MINIMUM 3/4" W/PULL STRING.

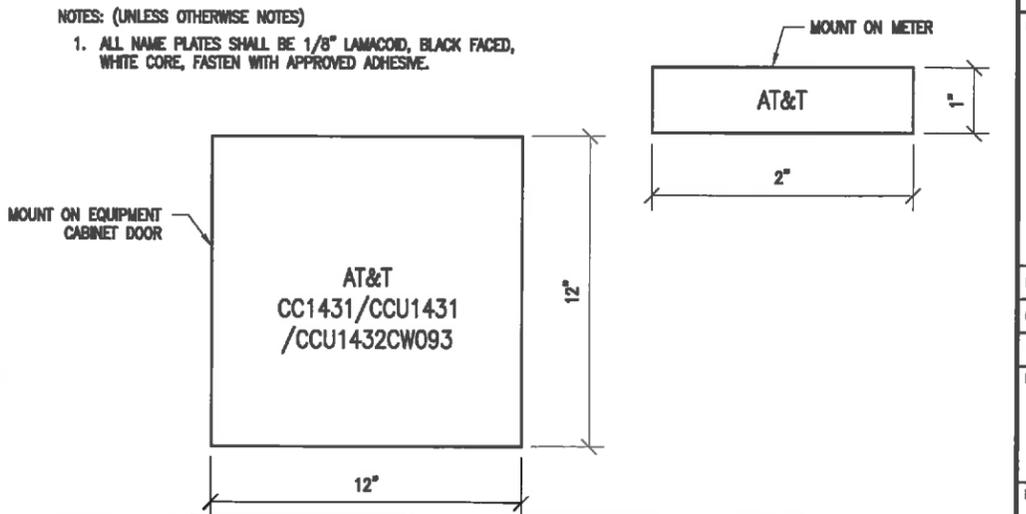
SYMBOLS:

ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN STANDARD TESTING MATERIALS
BOCA	BUILDING OFFICIALS AND CODE ASSOCIATION
BPG	BUILDING PRINCIPAL GROUND CONDUIT CONDUIT
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
GND	GROUND
EGB	EXTERNAL GROUND BUS
MGB	MASTER GROUND BUS
NEBS	NETWORK EQUIPMENT-BUILDING SYSTEM
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
UBC	UNIFORM BUILDING CODE
WP	WEATHER PROOF

- GENERAL NOTES:**
- CODES AND REGULATIONS: THE NATIONAL ELECTRICAL CODE AND APPLICABLE FEDERAL, STATE, COUNTY, AND MUNICIPAL BUILDING CODES, ORDINANCES, RULES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE CONSTRUCTION OF THIS PROJECT, SHALL APPLY THROUGHOUT.
 - PERMITS, FEES AND INSPECTIONS: ARRANGE AND PAY FOR REQUIRED ELECTRICAL BUILDING PERMITS, FEES AND INSPECTIONS.
 - GUARANTEES: INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. DEFECTIVE MATERIAL, EQUIPMENT OR INFERIOR WORKMANSHIP SHALL BE CORRECTED IMMEDIATELY TO THE SATISFACTION OF AT&T. IF, AFTER THIRTY (30) DAYS THE CORRECTIONS ARE NOT COMPLETE THE OWNER RESERVES THE OPTION OF ARRANGING FOR THE NECESSARY REPAIRS AND BACK CHARGING THE ORIGINAL CONTRACTOR FOR THE WORK.
 - CHANGES: NO ADDITIONAL COSTS FOR LABOR OR MATERIALS WILL BE ALLOWED FOR CHANGES OR MODIFICATIONS MADE UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE ARCHITECT, ENGINEER OR OWNER IN THE FORM OF A CHANGE ORDER.
 - PROJECT WORK: TO INCLUDE THE FURNISHING OF LABOR, TOOLS, EQUIPMENT AND MATERIALS AS REQUIRED TO INSTALL COMPLETE AND IN OPERATING CONDITION, THE ELECTRICAL SYSTEM SHOWN OR IMPLIED ON THESE DRAWINGS.
 - DRAWINGS: ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT TO BE SCALED, CONDUIT ROUTING IS SHOWN AS A GUIDE ONLY, ACTUAL CONDUIT PLACEMENT IS TO BE DONE IN A PROFESSIONAL MANNER.
 - DISCREPANCIES: DISCREPANCIES ON THESE PLANS, SPECIFICATIONS, ETC. MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
 - SURVEY AND CONDITIONS: VISIT THE JOB SITE PRIOR TO SUBMITTING BID, AND MAKE A SURVEY OF EXISTING CONDITIONS WHICH MAY EFFECT THE WORK TO BE PERFORMED, NO OTHER ALLOWANCES WILL BE GIVEN FOR THE SITE CONDITION.
 - CO-OPERATION: CO-OPERATE WITH OTHER CONTRACTORS AND SUBCONTRACTORS ON SITE, ARRANGE AND EXECUTE WORK IN SUCH A MANNER AS REQUIRED FOR THE SATISFACTORY AND EFFICIENT CONSTRUCTION OF THIS PROJECT BY ALL TRADES CONCERNED.
 - TEST AND REPORTS: GROUNDING SHALL BE TESTED AND TEST REPORT SHALL PROVIDED TO THE AT&T PROJECT MANAGER FOR APPROVAL BEFORE FINAL ACCEPTANCE.
 - BROCHURES AND MANUALS: BROCHURES AND OPERATING MANUALS SHALL BE TURNED OVER TO THE AT&T PROJECT MANAGER ON SITE.
 - TEMPORARY POWER: ARRANGE AND PAY FOR TEMPORARY POWER DURING CONSTRUCTION.
 - SHOP DRAWINGS: SUBMIT SHOP DRAWINGS AS REQUIRED BY AT&T PROJECT MANAGER.

- MATERIALS:**
- MATERIALS AND WORKMANSHIP: PROVIDE MATERIALS NEW AND OF SPECIFICATION GRADE WITH U.L. LABELS. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADE INSTALLED BY JOURNEYMAN ELECTRICIANS UNDER THE DIRECT SUPERVISION OF A COMPETENT FOREMAN.
 - CONDUIT SYSTEM: RIGID STEEL, HEAVY-WALL CONDUIT, INCLUDING COUPLING, LOCK-NUTS, BUSHINGS, NIPPLES AND OTHER FITTINGS SHALL BE HOT DIPPED GALVANIZED, SHERARDIZED, OR ZINC COATED. ELECTRICAL METALLIC TUBING (EMT), INCLUDING COUPLINGS, CONNECTORS AND OTHER FITTINGS SHALL BE GALVANIZED OR SHERARDIZED, FITTINGS FOR THE EMT SHALL BE OF THE COMPRESSION TYPE. NO CRIMP OR SET SCREW TYPE SHALL BE ALLOWED. CONDUIT INSTALLED FOR FUTURE USE SHALL BE INSTALLED WITH A PULL WIRE.
- CONDUIT SHALL BE AS FOLLOWS:
- CONDUIT SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED. NO HORIZONTAL CONDUITS SHALL BE PERMITTED BELOW 7'-6" AFF.
 - RIGID GALVANIZED STEEL IN EXPOSED AREAS SUBJECT TO WEATHER OR PHYSICAL DAMAGE.
 - ELECTRICAL METALLIC TUBING (EMT) INDOORS.
 - LIQUID TIGHT FLEX FOR WEATHERPROOF CONNECTORS TO EQUIPMENT.
 - UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC WITH RIGID GALVANIZED STEEL BENDS, AND RISERS. PVC CONDUITS SHALL CONTAIN A GROUND WIRE PER NEC TABLE 250-84
- UTILITY BENDS MAY BE PER LOCAL UTILITY RECOMMENDATIONS.
 - JUNCTION BOXES: JUNCTION BOXES SHALL BE GALVANIZED OR SHERARDIZED. ONE PIECE PRESSED STEEL, KNOCK OUT TYPE. MINIMUM SIZE SHALL 4" SQUARE BY 1-1/4" DEEP. BOXES SHALL HAVE PLASTER RINGS AND EXTENSIONS AS REQUIRED.
 - WIRE: MINIMUM #12 CONDUIT EXCEPT WHERE OTHER SIZES ARE SPECIFICALLY INDICATED. THE NUMBER OF WIRES IN A CONDUIT ARE INDICATED BY MEANS OF CROSS MARKS (NEUTRAL BEING LONGER) WHERE THREE OR MORE WIRES ARE NECESSARY. REFER TO NEC TABLE 310 FOR CONDUIT FILL REQUIREMENTS WHERE LARGER THAN 1/2" CONDUIT IS REQUIRED FOR THE NUMBER OF WIRES INDICATED. WIRE SHALL BE AS FOLLOWS:
 - CONDUCTORS SHALL BE STRANDED COPPER, WITH THHN OR THW AWG. INSULATION.
 - NO BX, MC OR ROMEX CABLE SHALL BE PERMITTED.
 - SERVICE EQUIPMENT: VERIFY WITH THE SERVING UTILITY THAT THE SERVICE EQUIPMENT PROPOSED MEETS THEIR REQUIREMENTS AND IS RATED FOR THE MAXIMUM SHORT CIRCUIT DUTY AVAILABLE, AND SUBMIT SHOP DRAWINGS IF REQUESTED. EQUIPMENT MAY BE SERIES RATED PER MANUFACTURER'S RECOMMENDATIONS, AND RESPONSIBILITY.

- EXECUTION:**
- ACCEPTANCE: BEFORE ACCEPTANCE OF THE WORK, INSPECT THE BUILDING IN THE PRESENCE OF THE OWNER AND DEMONSTRATE THAT ELECTRICAL SYSTEMS ARE IN OPERATING CONDITION SATISFACTORY TO THE OWNER.
 - CUTTING AND PATCHING: CUTTING AND PATCHING OF CONSTRUCTION REQUIRED FOR PROPER INSTALLATION OF HIS WORK IS THE RESPONSIBILITY OF THIS CONTRACTOR. NO CUTTING OF STRUCTURAL MEMBERS SHALL BE DONE WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
 - LOCATION AND ARRANGEMENTS: DRAWINGS INDICATE DIAGRAMMATICALLY, THE DESIRED LOCATION OF EQUIPMENT, FIXTURES, OUTLETS, ETC. AND ARE NOT TO BE SCALED, PROPER JUDGEMENT MUST BE EXERCISED IN THE EXECUTION TO INSURE THE BEST POSSIBLE INSTALLATION.
 - DEVICE ARRANGEMENT: DEVICES MOUNTED ON OPPOSITE SIDES OF A COMMON WALL SHALL NOT BE MOUNTED BACK TO BACK AND SHALL BE SEPARATED BY A ONE STUD MINIMUM.
 - PANEL AND DISTRIBUTION BOARD IDENTIFICATION: SWITCHBOARDS, PANEL BOARDS, TRANSFORMERS AND DISTRIBUTION SECTIONS SHALL BE IDENTIFIED WITH ENGRAVED WHITE ON BLACK LAMINATED RIGID PHENOLIC NAMEPLATES WITH 1/4" CHARACTERS, SECURELY AFFIXED TO FACE OF CABINET.
 - EXTERIOR EQUIPMENT: LOCATION OF EQUIPMENT SHALL BE FIELD VERIFIED.
 - EQUIPMENT LOCATIONS: LOCATION OF EQUIPMENT SHALL BE FIELD VERIFIED.
 - GROUNDING: GROUNDING OF THE ELECTRICAL EQUIPMENT AND SYSTEM SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES OR ORDINANCES.
 - AT&T STANDARDS: INSTALLATION SHALL COMPLY SPECIFICALLY WITH AT&T ENGINEERING STANDARDS MANUAL. ANY DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION ON THE AT&T PROJECT MANAGER PRIOR TO COMMENCEMENT OF WORK.
 - PROCUREMENT VERIFICATION: PROVIDE AN ITEMIZED CERTIFICATION TO THE AT&T PROJECT MANAGER THAT EQUIPMENT AND RELATED HARDWARE HAVE BEEN ORDERED WITHIN 24 HOURS OF AT&T NOTICE TO PROCEED.



APPLICANT/OWNER:



AT&T
4430 ROSEWOOD DR
PLEASANTON, CA 94588

PREPARED BY:



complete wireless solutions

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PROJECT LOCATION

AT&T FA#: 10547062
AT&T SITE #: CC1431/CCU1431 /CCU1432 (CW093)

ST MARY'S COLLEGE
1928 ST MARY'S ROAD
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DRAWN BY: RYAN NIEDZWECKI
CHECKED BY: SKIP TANNER

DRAWING DESCRIPTION:

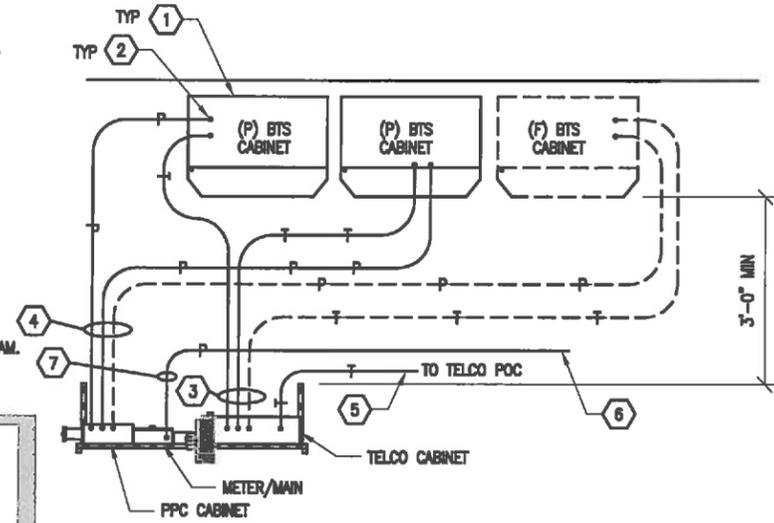
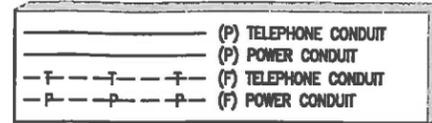
GENERAL ELECTRICAL NOTES
ABBREVIATIONS AND LABELS

DRAWING NUMBER: **E-1**

S:\AT&T PROJECTS\CW083 - ST MARY'S COLLEGE\10 - DRAWINGS\CD\S\CW083 - ST MARY'S COLLEGE CD.DWG, RYAN NEDZWECKI, 12/30/2010

NOTES:

- ① PROPOSED BTS EQUIPMENT CABINET ON MFR BASE, FASTENED TO CONCRETE PAD PER MFR SPECS.
- ② CONTRACTOR SHALL VERIFY CONDUIT STUB LAYOUT BELOW BTS EQUIPMENT WITH EACH CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
- ③ #2" SCHEDULE RIDGE TELEPHONE SERVICE CONDUIT WITH 3/8" PULL STRING.
- ④ ELECTRICAL POWER FEED
- ⑤ 4" SCHEDULE RIDGE TELEPHONE SERVICE CONDUIT WITH 3/8" PULL STRING.
- ⑥ ELECTRICAL SERVICE FEEDER.
- ⑦ INCOMING POWER - SEE ELECTRICAL ONE LINE DIAGRAM.



APPLICANT/OWNER:

 AT&T
 4430 ROSEWOOD DR
 PLEASANTON, CA 94588

PREPARED BY:

 complete wireless solutions

VELOCITEL, INC.
 6600 KOLL CENTER PKWY SUITE 150
 PLEASANTON, CA 94566
 OFFICE (925) 931-9011

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SEAL

NOT USED

1

TYPICAL BTS CONDUIT SCHEMATIC DIAGRAM

SCALE 11" x 17" SCALE: NTS
 24" x 36" SCALE: NTS

2



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A	10/10/10	ISSUED FOR 100% PERMITTING	CMN
0	11/18/10	ISSUED FOR 90% CONSTRUCTION	RBN
1	12/7/10	REISSUED FOR 90% CONSTRUCTION	RBN
2	12/8/10	ISSUED FOR 100% CONSTRUCTION	RBN
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4	12/29/10	REDESIGNED & REISSUED FOR 100% PERMITTING	RBN
5	1/4/11	REDESIGNED & REISSUED FOR 90% CONSTRUCTION	RBN
6			
7			
8			

PROJECT LOCATION

AT&T FA#: 10547082
 AT&T SITE #: CC1431/CCU1431 /CCU1432 (CW083)

ST MARY'S COLLEGE
 1928 ST MARY'S ROAD
 MORAGA, CA 94556

DRAWN BY: RYAN NEDZWECKI

CHECKED BY: SKIP TANNER

DRAWING DESCRIPTION:

ELECTRICAL
 DETAIL SHEET

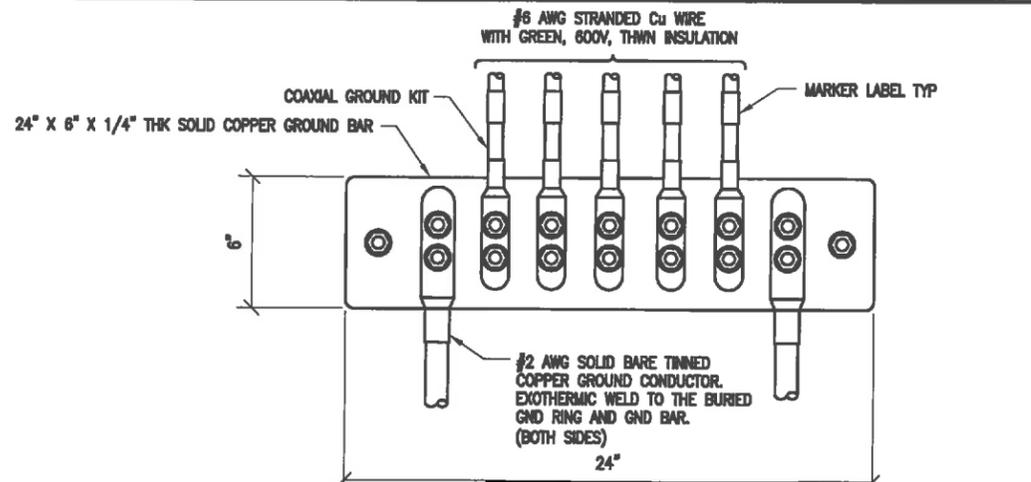
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E-3

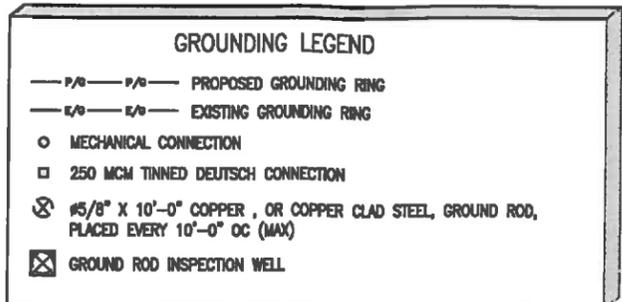
NOT USED

3

S:\AT&T PROJECTS\CW093 - ST MARY'S COLLEGE\10 - DRAWINGS\CD\1\CW093 - ST MARY'S COLLEGE CD.DWG, RYAN NIEDZIECKI, 12/30/2010



TYPICAL COAX GROUNDING KIT / GROUND BAR DETAIL SCALE 11" X 17" SCALE: NTS 24" X 36" SCALE: NTS 1



APPLICANT/OWNER:

 AT&T
 4430 ROSEWOOD DR
 PLEASANTON, CA 94588
 PREPARED BY:

 complete wireless solutions
 VELOCITEL, INC.
 6600 KOLL CENTER PKWY SUITE 150
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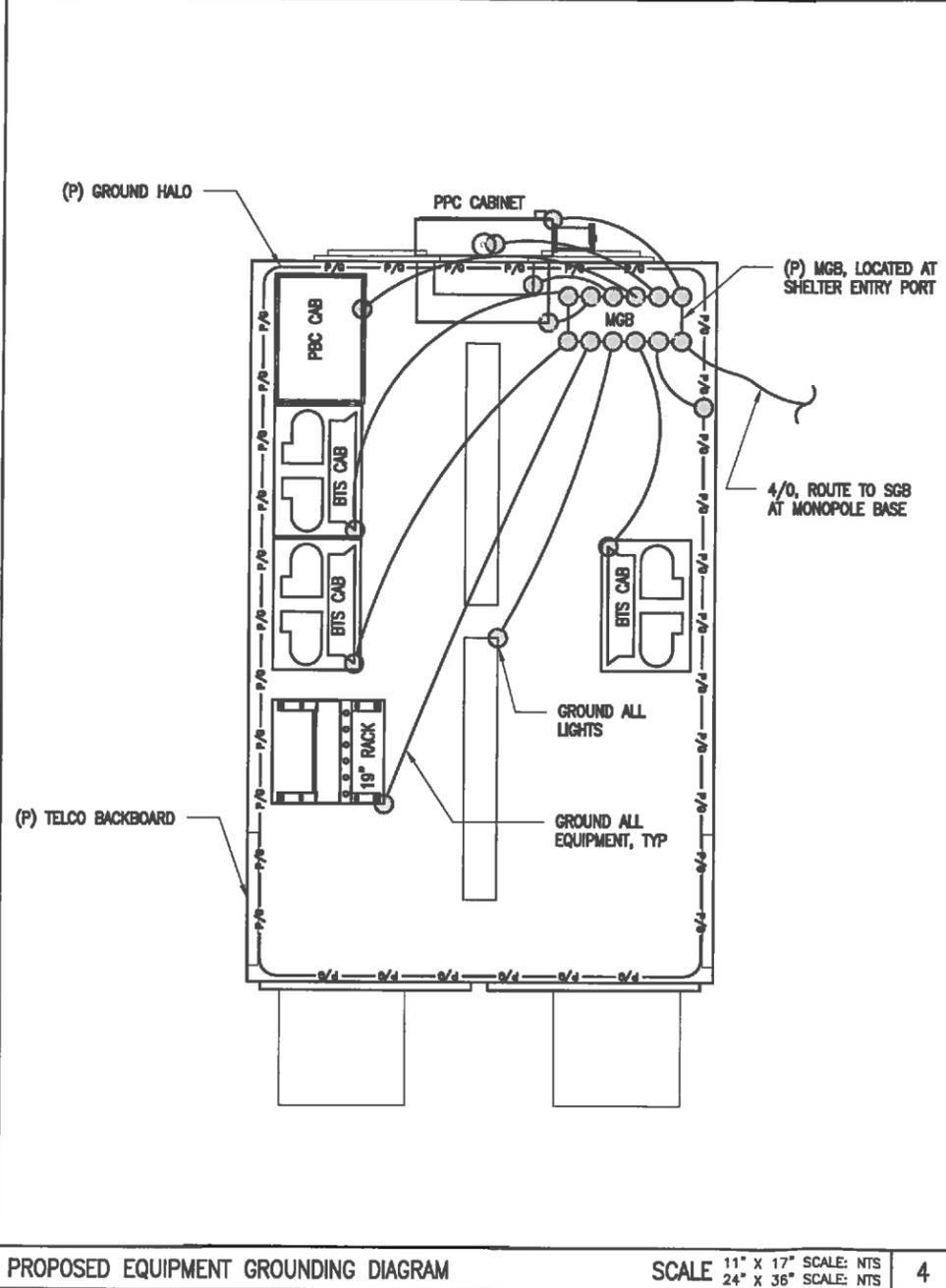
PROJECT LOCATION
 AT&T FA#: 10547082
 AT&T SITE #: CC1431/CCU1431 /CCU1432 (CW093)
 ST MARY'S COLLEGE
 1928 ST MARY'S ROAD
 MORAGA, CA 94558

DRAWN BY: RYAN NIEDZIECKI
 CHECKED BY: SKIP TANNER

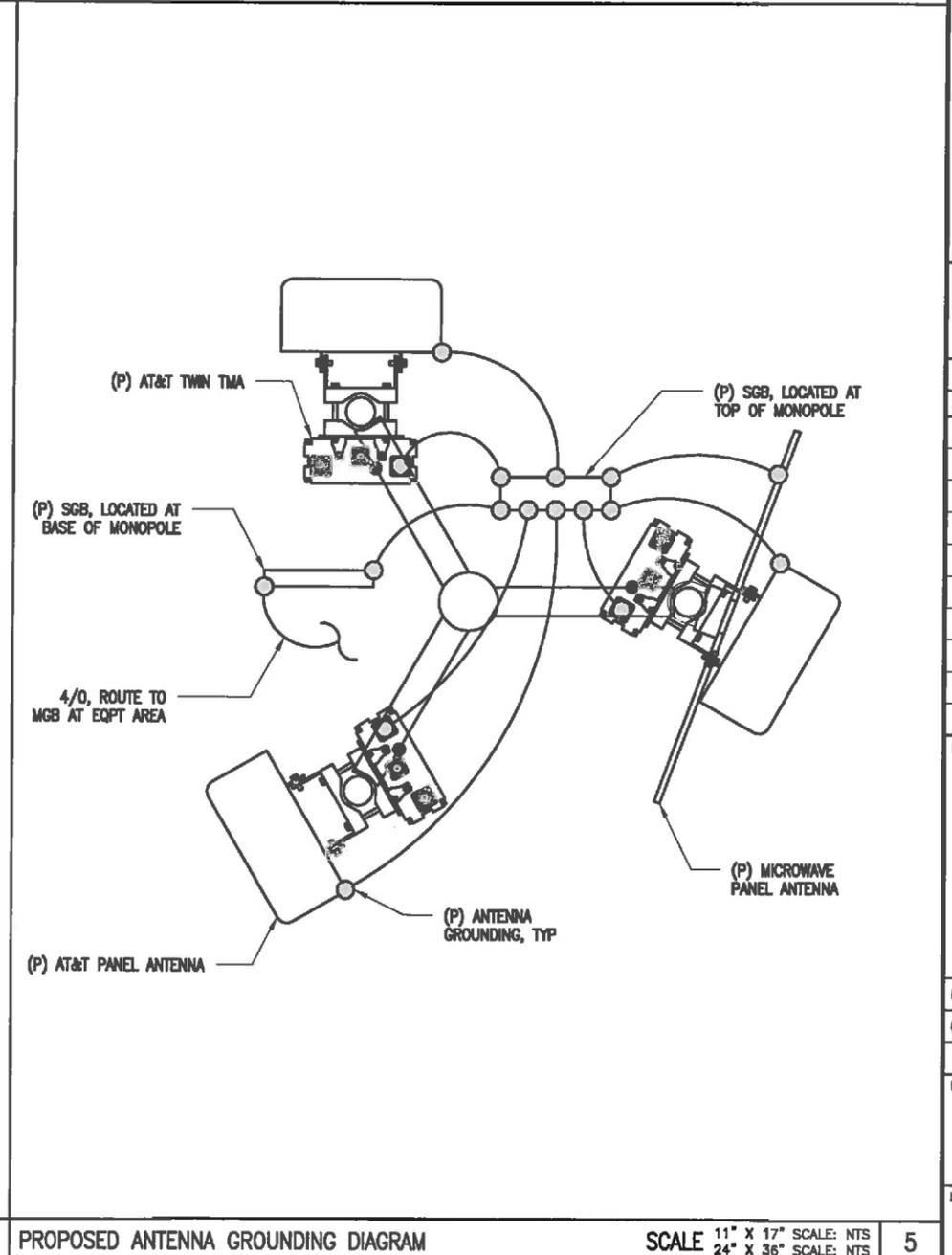
DRAWING DESCRIPTION:
 GENERAL DETAILS AND GROUNDING PLANS

DRAWING NUMBER:
E-4

NOT USED 2



NOT USED 3 PROPOSED EQUIPMENT GROUNDING DIAGRAM SCALE 11" X 17" SCALE: NTS 24" X 36" SCALE: NTS



PROPOSED ANTENNA GROUNDING DIAGRAM SCALE 11" X 17" SCALE: NTS 24" X 36" SCALE: NTS 5

S:\AT&T PROJECTS\CW093 - ST MARY'S COLLEGE\10 - DRAWINGS\CDS\CW093 - ST MARY'S COLLEGE CD.DWG, RYAN NEDZWECKI, 12/30/2010

1. THIS PROPOSAL IS FOR AN UNMANNED TELECOMMUNICATIONS FACILITY. SEE PROJECT DESCRIPTION ON SHT. T1 FOR MORE INFO.
2. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE.
3. THE PROPOSED FACILITY IS UNMANNED AND IS NOT FOR HUMAN HABITAT. (NO HANDICAP ACCESS IS REQUIRED).
4. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
5. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS PROPOSAL.
6. OUTDOOR STORAGE AND SOLID WASTE CONTAINERS ARE NOT PROPOSED.
7. IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATIONS AND THE DRAWINGS, THE DRAWINGS, SHALL GOVERN.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE CONSTRUCTION OPERATION.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTION REQUIRED FOR CONSTRUCTION.
10. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS. DURING THE CONSTRUCTION PERIOD.
11. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND DRAWINGS PROVIDED BY THE SITE OWNER. SUBCONTRACTOR SHALL NOTIFY AT&T OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
12. NO WHITE STROBIC LIGHTS ARE PERMITTED, LIGHTING, IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
13. SUBCONTRACTOR SHALL CALL DIG ALERT (1-800-227-2600) FOR UNDERGROUND UTILITY MARKOUT PRIOR TO CONSTRUCTION.

RF GENERAL NOTES

COLOR CODED TAPE LABEL CHART						
SECTORS	COLORS	PORT 1	PORT 2	PORT 3	PORT 4	* +1 TAPE FOR EA ADDITIONAL PORT
A	BROWN	■	■	■	■	*
	ORANGE	■	■	■	■	*
B	YELLOW	■	■	■	■	*
	BLUE	■	■	■	■	*
C	PURPLE	■	■	■	■	*
	WHITE	■	■	■	■	*

COAXIAL CABLE LENGTH AND BEND RADIUS CHART			
TYPE OF EQUIPMENT	LENGTH OF CABLE RUN	CABLE DIAMETER	MAXIMUM BENDING RADIUS
ANDREWS LDF-4-50A	3', 6' AND 10' SUPERFLEX JUMPER RUNS	#1/2"	1-1/4"
ANDREWS LDF-4-50A	3', 6' AND 10' ANTENNA JUMPER RUNS	#1/2"	3"
ANDREWS LDF-4-50A	50' TO 125'	#7/8"	MULTI BENDS 10"
ANDREWS LDF-4-50A	50' TO 125'	#7/8"	SINGLE BEND 5"
ANDREWS LDF-4-50A	125' AND 250'	#1-5/8"	MULTI BENDS 20"
ANDREWS LDF-4-50A	125' AND 250'	#1-5/8"	SINGLE BEND 8"

PANEL ANTENNA FREQUENCY CHART	
TRANSMIT (TX)	RECEIVE (RX)

PORT / COLOR CODE CHART & CABLE CHARTS

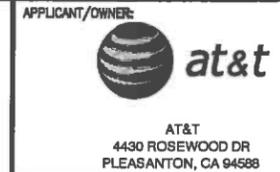
ANTENNA SECTOR	# OF ANTENNAS	AZIMUTH	RAD CENTER	ANTENNA MAKE/MODEL	ELECT DOWNTILT	RET	RET CABLE LENGTH	MAIN CABLE LENGTH	TYPICAL CABLE SIZE	TOP JUMPER LENGTH	BOTTOM JUMPER LENGTH	COMMENTS
SECTOR A (ALPHA)	2	0°	55'	RA31.7780.00	TBD°	DAISY	-	A/R	#7/8"	6'	6'	-
SECTOR B (BETA)	2	120°	55'	RA31.7780.00	TBD°	DAISY	-	A/R	#7/8"	6'	6'	-
SECTOR C (GAMMA)	2	240°	55'	RA31.7780.00	TBD°	DAISY	-	A/R	#7/8"	6'	6'	-

	ANTENNA MAKE	MAIN CABLE LENGTH	CABLE SIZE	CABLE NO. / PORT NO.	COMMENTS
GPS	ERICSSON	±8'	#1/2"	RX: PORT 7	
MICROWAVE	XCELARATOR	±65'	#1/2"		

NOTES: (UNLESS OTHERWISE SPECIFIED)
 AZIMUTH: IN TRUE NORTH DEGREES.
 MECHANICAL & ELECTRICAL TILT: IN DEGREES, POSITIVE VALUE IS DOWN.
 CONTRACTOR TO FIELD VERIFY CABLE LENGTHS PRIOR TO ORDERING, FABRICATION, OR INSTALLATION OF CABLES.

COAXIAL CABLE CHARTS AND ANTENNA CHART

RF DATA SHEET



PREPARED BY:

 complete wireless solutions
 VELOCITEL, INC.
 6600 KOLL CENTER PKWY SUITE 150
 PLEASANTON, CA 94566
 OFFICE (925) 931-9011

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6			
7			
8			

PROJECT LOCATION
AT&T FA# 10547062
AT&T SITE # CC1431/CCU1431 /CCU1432 (CW093)
ST MARY'S COLLEGE
 1928 ST MARY'S ROAD
 MORAGA, CA 94556

DRAWN BY: RYAN NEDZWECKI
 CHECKED BY: SKIP TONNER

DRAWING DESCRIPTION:
RF GENERAL NOTES & DATA SHEET

DRAWING NUMBER:
RF-1

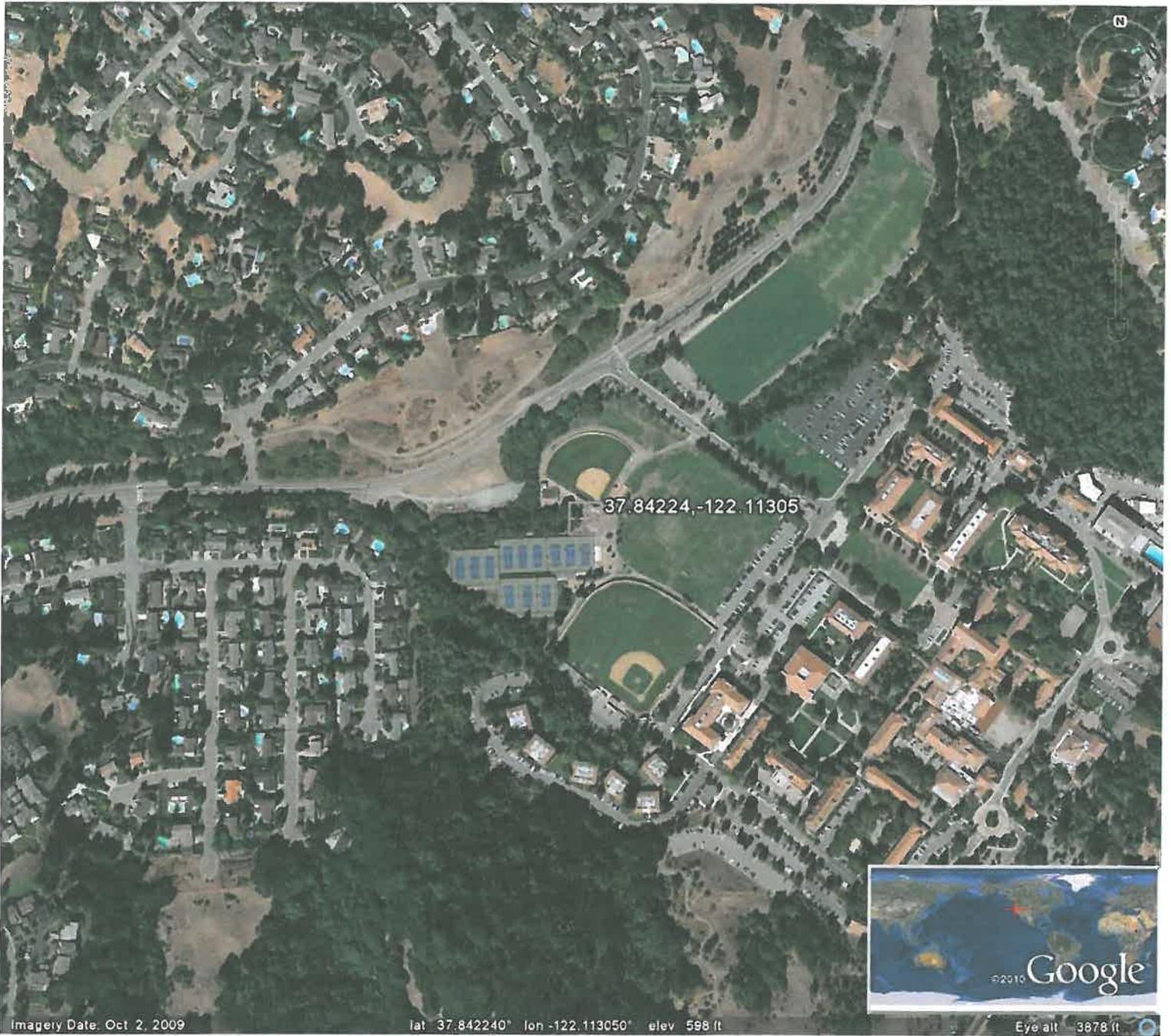


EXHIBIT A--Location of the relocated COW



Exhibit B – location of COW with Google Earth distances to nearest residences.

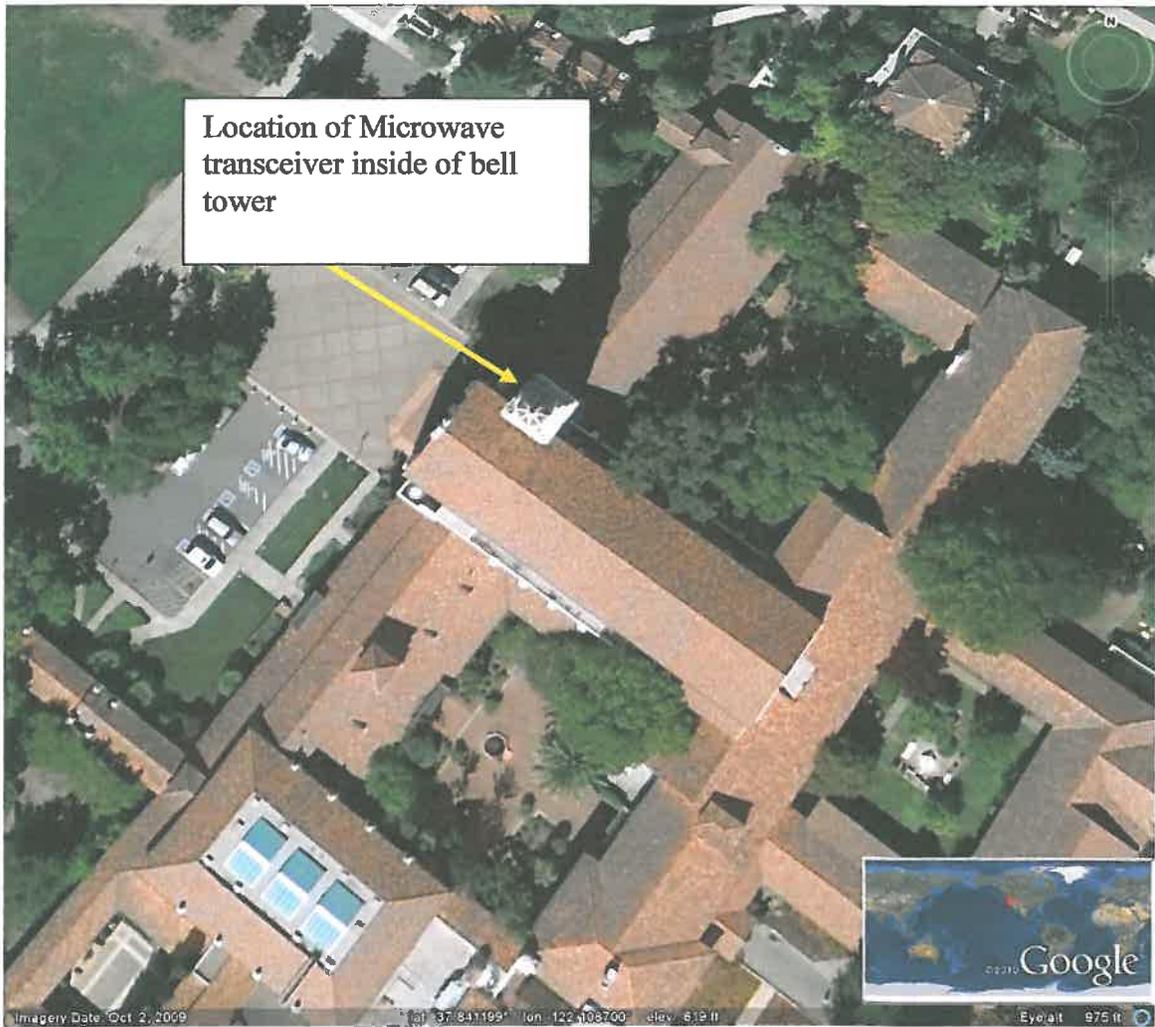


EXHIBIT C- Location of Microwave transceiver inside of bell tower.

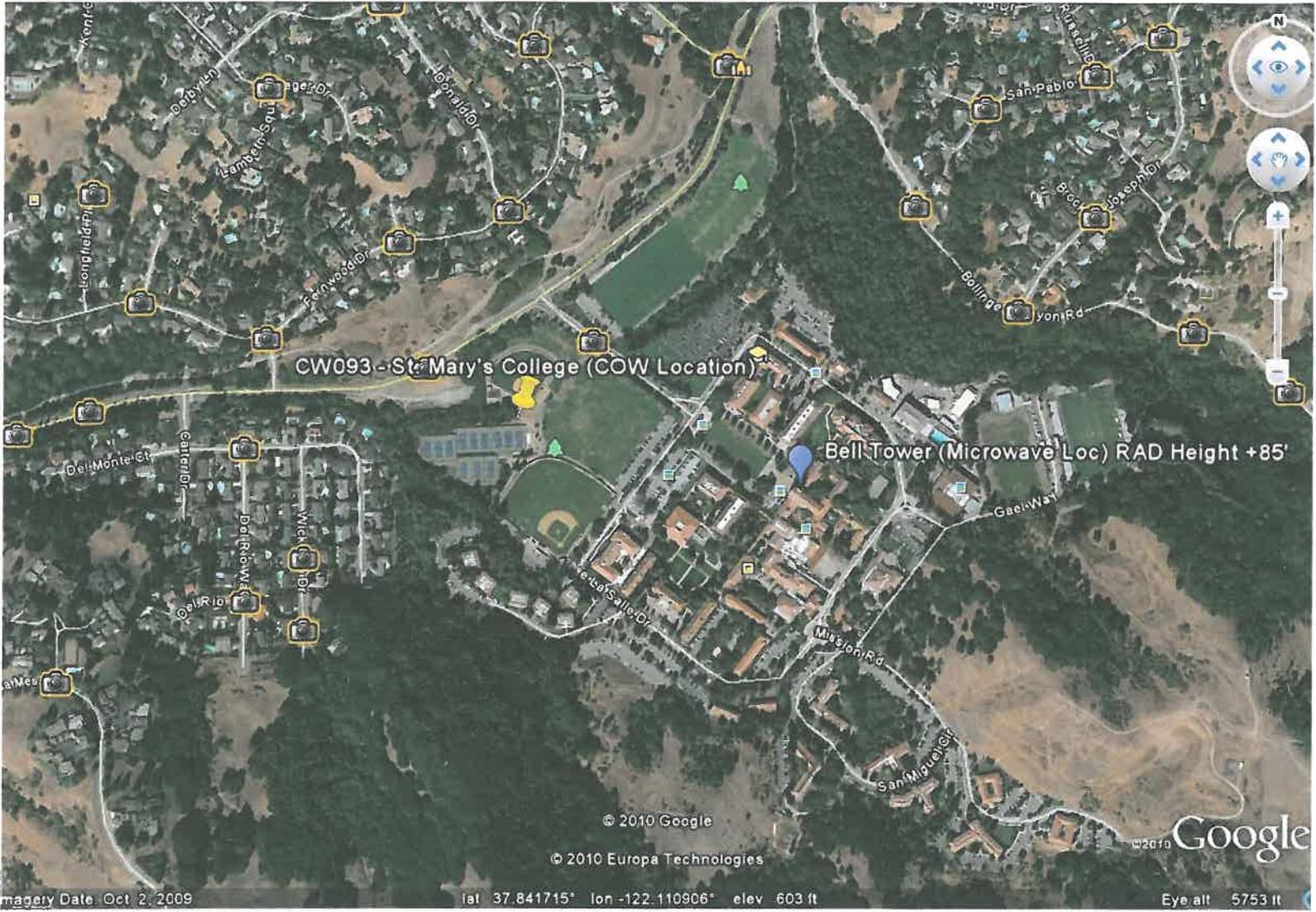


Exhibit D – Locations of Cow and Microwave.



Exhibit E- Location of COW looking toward tennis courts and baseball field (South)



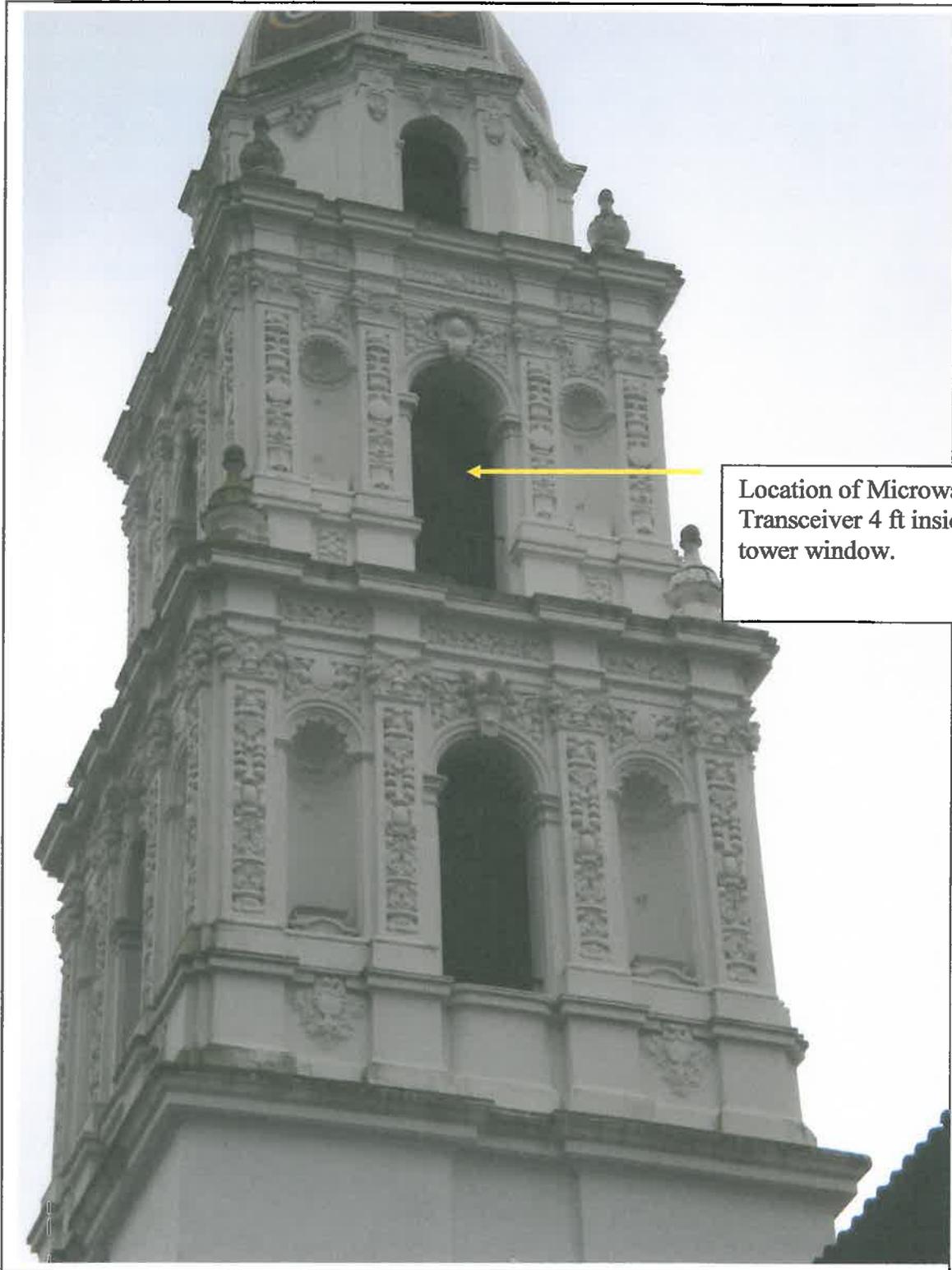
Exhibit F- Location of Cow Looking North



Exhibit G Location of Cow next to Tennis court.



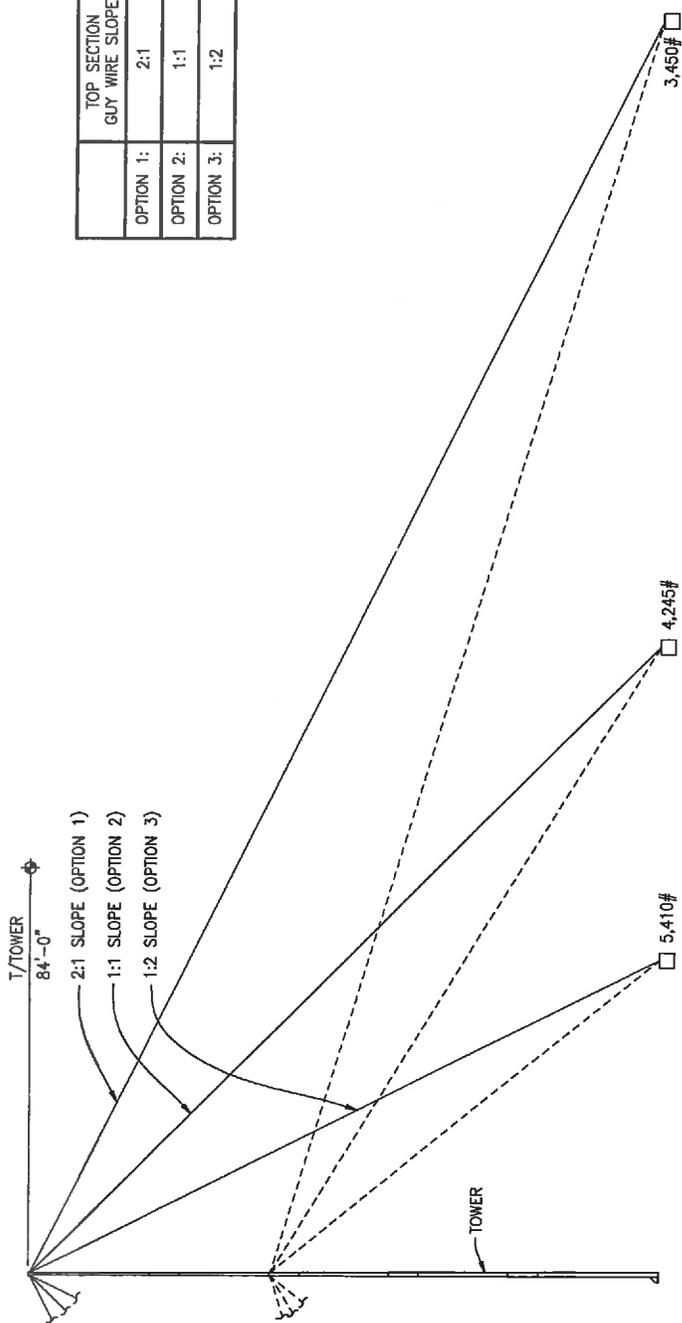
Exhibit H- Looking Back to Bell tower form cow location



Location of Microwave Transceiver 4 ft inside of bell tower window.

Photos and stamped design specification for the COW

Note: the pictures of the tower shows the poles fully extended to 85 feet—not the 55 feet we propose.



TOP SECTION GUY WIRE SLOPE	REQD COUNTER ANCHOR WEIGHT
OPTION 1: 2:1	5,410#
OPTION 2: 1:1	4,243#
OPTION 3: 1:2	3,450#

NOTE:

1. PROVIDE GUY-WIRE ANCHORAGE MASS OR SOIL ANCHORS FOR CAPACITY INDICATED FOR OPTION 1, 2, OR 3.
2. WIRE ROPE SHALL BE 1/2" IMPROVED PLOW STEEL (MCMASTER-CARR PART # 3440T16 OR EQUAL).
3. (6) TOTAL GUY WIRES REQUIRED, (3) AT TOP, AND (3) AT 52'-0" ELEVATION. WIRES LOCATED AT 120' AROUND TOWER, SEE 1/S1.3.

GUY WIRE ANCHORAGE

1
SCALE: 1/16"=1'-0"

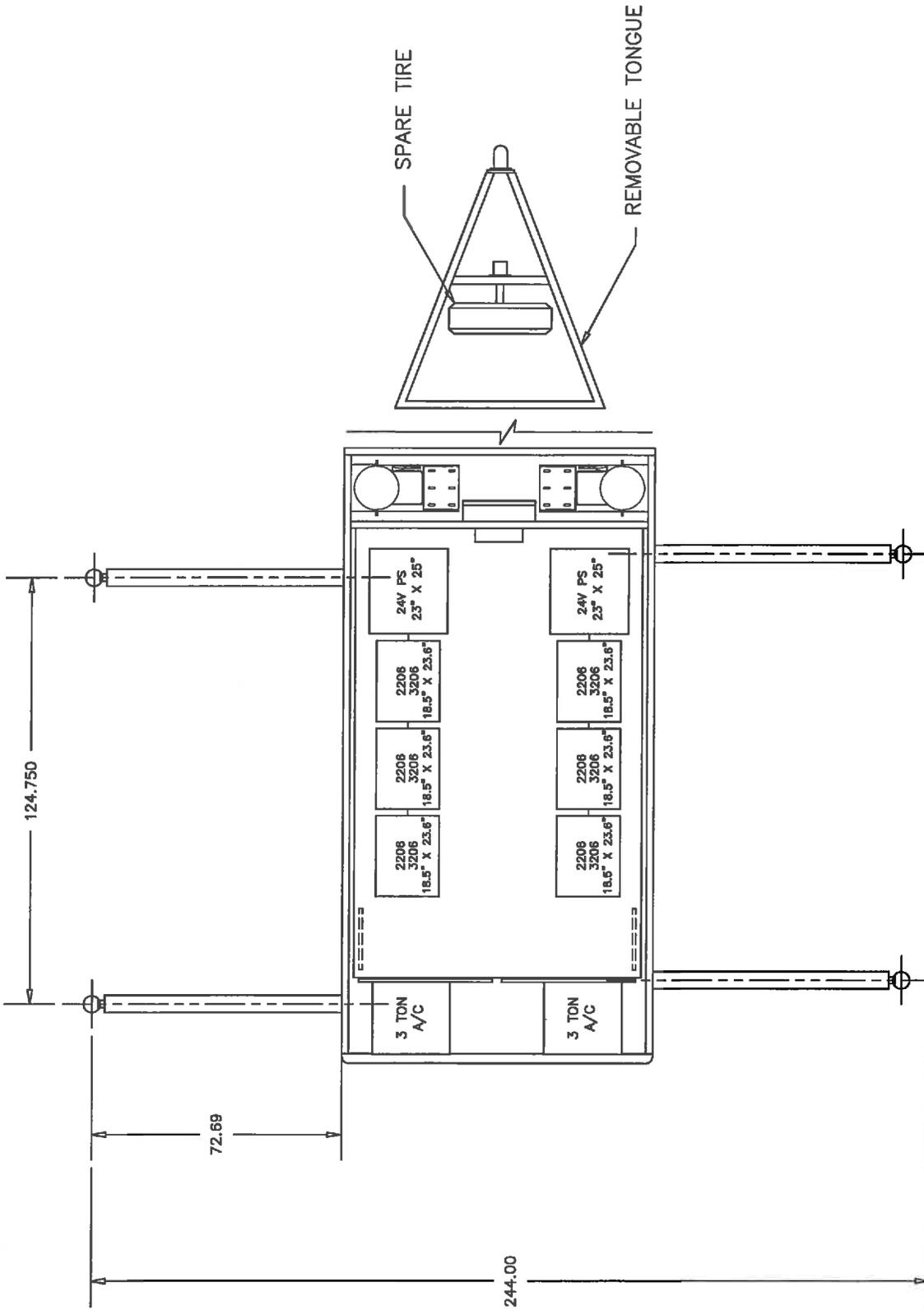


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 601 WEST RIVERSIDE • SUITE 600
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 WEBSITE: www.edci-engineers.com
 CIVIL / STRUCTURAL
 09055531-2.dwg 28 Feb. 2009 - 1:58 pm DP@edciengineer

PROJECT NAME: PEAK INDUSTRIES 84' MOBILE CELL TOWERS
PROJECT NO.: 09-41-0055
DATE: 02/25/09
BY: JLP

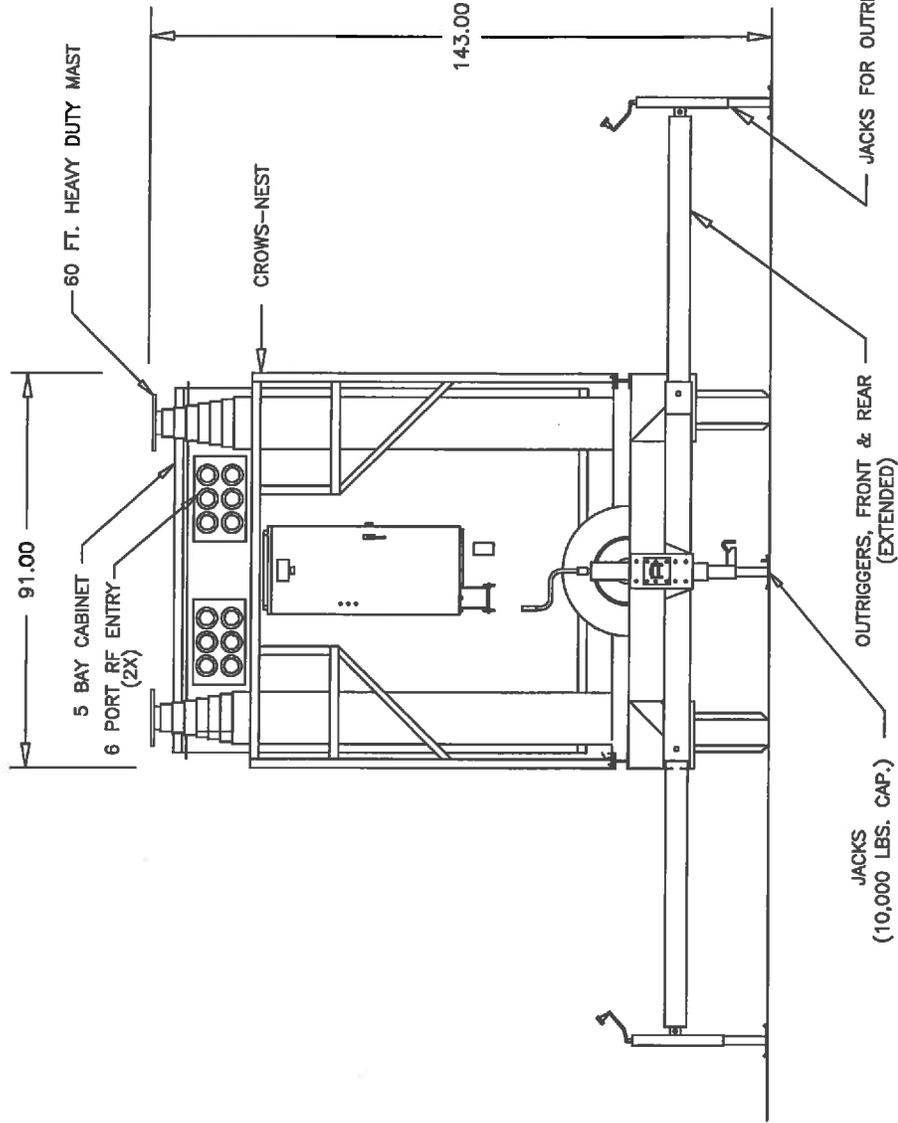
SKETCH NO.: S1.2
CONSTRUCTION FIELD SKETCH: STRUCTURAL SKETCHES



SPARE TIRE

REMOVABLE TONGUE

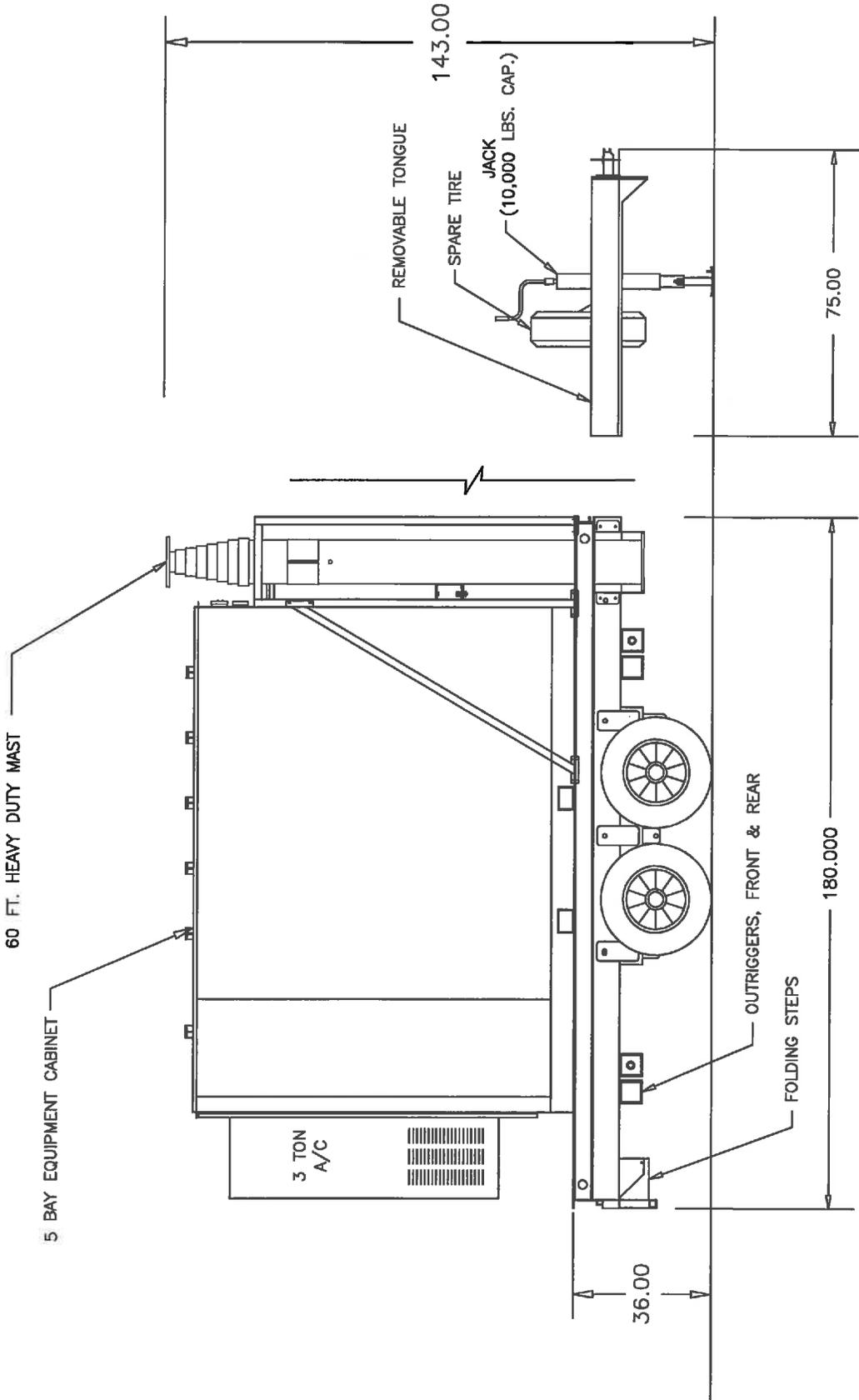
		SUN WEST ENGINEERING, INC. <small>SHOP 2, BROADWAY, FREDERICK, MD 21740 (301) 275-0082</small>	
		TITLE: SUN WEST 15' EQUIPMENT TRAILER TOP VIEW OF OUTRIGGERS EXTENDED	
CUSTOMER:		PLOTTED SCALE: XXXX=1	SHEET: 1 of 1
DRAWN BY: ECM		DATE DRAWN: 3-03-10	
REVISED:		DWG. No. SW-3297	





SUN WEST ENGINEERING, INC.
 8802 E. BROADWAY, PEBBLE BEACH, AZ 85040 (602) 275-0682

TITLE: 15' TRAILER, FRONT VIEW	
CUSTOMER:	
PLOTTED SCALE: .XXXX=1	SHEET: 1 of 1
DRAWN BY: <i>FEZ</i>	DATE DRAWN: 3-3-10
REVISED:	DWG. No. SW-3299




SUN WEST ENGINEERING, INC.
 8902 E. BROADWAY, PHOENIX, AZ 85040 (602) 276-0662

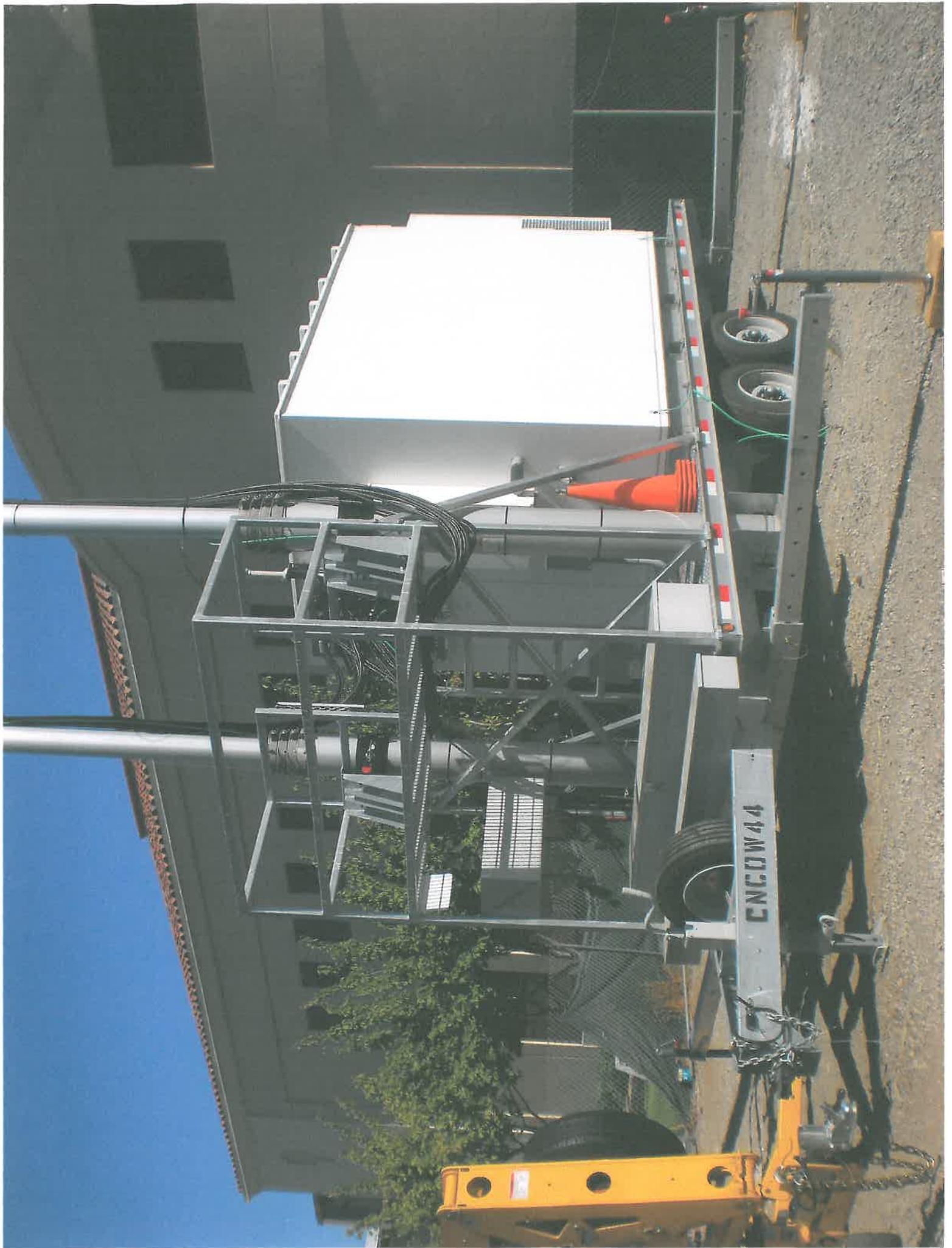
TITLE: 15 FT. "COW" TRAILER
 WITH 5 BAY EQUIPMENT CABINET

CUSTOMER:

PLOTTED SCALE: .XXXX=1 SHEET: 1 of 1

DRAWN BY: *PCZAF* DATE DRAWN: 3-3-10

REVISED: DWG. No. SW-3296



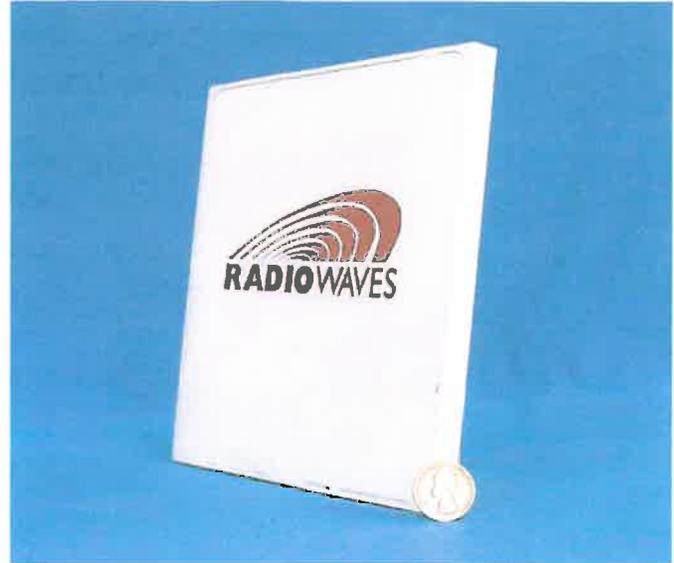




Xcelerator™ Series Flat Panel Antenna 5.15 - 5.85 GHz

Key Features

- Enhanced system performance in aesthetically pleasing package
- Superior VSWR of 1.4:1 across the 5.15 - 5.85 GHz frequency band
- Excellent front-to-back ratio of 40 dB
- Low profile: Less than 1/2" thick
- Superior Radio Waves design and construction for years of reliable service
- Three year warranty



Xcelerator Model FP.5-5-18

The Leader in Microwave Antenna Innovation™

Electrical Specifications, typical

Model #	FP.5-5-18	FP1-5-24	FP2-5-28
Frequency, GHz	5.15 - 5.85	5.15 - 5.85	5.15 - 5.85
Gain, dBi (nominal)			
Low	17.7	23.6	27.8
Mid	17.9	23.8	28.0
High	18.1	24.2	28.2
Beamwidth -3dB	18 degrees	9 degrees	4.5 degrees
X-Pol. Rejection (dB)	25	30	30
F/B Ratio (dB)	30	40	40
VSWR, Max	1.4:1	1.4:1	1.4:1
Dimensions (inches)	6 x 6 x .5	12 x 12 x .5	24 x 24 x .5
Weight (lbs.)	3	5	10
RF Interface	"N" (F)	"N" (F)	"N" (F)
Mount	Included	Included	Included

Note:

Product specifications may change without notice.



DCA45SSI

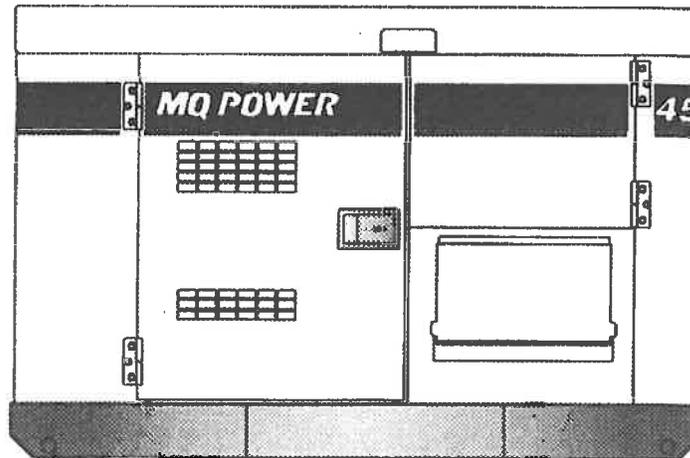
WhisperWatt™ Generator

WhisperWatt™ 45

Prime Rating: 36 kW (45 kVA)

Standby Rating: 40 kW (50 kVA)

60 Hertz



Standard Features

- **Heavy duty, 4-cycle, diesel engine** provides maximum reliability.
- **Brushless alternator** reduces service and maintenance requirements and meets temperature rise standards for Class H insulation systems.
- **Open delta alternator design** provides virtually unlimited excitation for maximum motor starting capability.
- **Automatic voltage regulator (AVR)** provides precise regulation.
- **Electronic Governor Control (Crystal Sync)** maintains frequency to within $\pm 0.25\%$ from no load to full load.
- **Full load acceptance** of standby nameplate rating in one step (NFPA 110, para 5-13.2.6).
- **Sound attenuated, weather resistant, steel housing** provides operation at 65 dB(A) at 23 feet. Fully lockable enclosure allows safe unattended operation.
- **Internal fuel tank** with direct reading fuel gauges are standard.
- **Seven-stage powder coat paint** provides durability and weather protection.
- **Fuel/water separator** removes condensation from fuel for extended engine life. Panel mounted alarm light included.
- **Complete engine analog instrumentation** includes DC ammeter, oil pressure gauge, water temp. gauge, fuel level gauge, tachometer/hour meter, preheat indicator, emergency shutdown monitors, and keyed start switch.
- **Automatic start/stop control** — automatically starts the generator set during a commercial power failure when used in conjunction with a transfer switch.
- **Complete generator analog instrumentation** includes voltage regulator control, ammeter phase selector switch, voltmeter phase selector switch, AC voltmeter, AC ammeter, frequency meter, panel light, and circuit breaker.
- **Automatic safety shutdown system** monitors the water temperature, engine oil pressure, overspeed and overcrank. Warning lights indicate abnormal conditions.
- **Complete power panel.** Fully covered; three-phase terminals and single phase receptacles allow fast and convenient hookup for most applications including temporary power boxes, tools and lighting equipment. All are NEMA standard.
- **Simultaneous single and three phase power.**
- **Voltage selector switch** allows easy to change voltages as your applications require.
- **EPA emissions certified** Interim Tier 4 emissions compliant.



DCA45SSI

WhisperWatt™ Generator

Specifications

Generator Specifications	
Design	Revolving field, self-ventilated drip-proof, single bearing
No. of Poles	4-pole
Excitation	Brushless with AVR
Standby Output	40 kW (50 kVA)
Prime Output	36 kW (45 kVA)
Generator RPM	1800
Voltage — 3Ø	208, 220, 240, 416, 440, 480V Switchable
Voltage — 1Ø	120, 127, 139, 240, 254, 277V Switchable
Armature Connection	Star with neutral / Zig Zag
Voltage Regulation (No load to full load)	±0.5%
Power Factor	1.0
Frequency	60 Hz
Frequency Regulation: No Load to Full Load	Isochronous under varying loads from no load to 100% rated Load
Frequency Regulation: Steady State	±0.25% of mean value for constant loads from no load to full load
Insulation	Class H
Sound Level dB(A) Full load at 23 feet	65

Engine Specifications	
Make / Model	Isuzu / BU-4JJ1T
Emissions	EPA Tier 3 Certified
Starting System	Electric
Design	4-cycle, water cooled, direct injection, turbocharged
Displacement	183.0 in ³ (2999 cc)
Cylinders	4
Bore x Stroke (mm)	95.4 x 104.9
Gross Engine Power Output	67.1 hp (50.0 kW)
BMEP	136 psi (940 kPa)
Piston Speed	1237 ft/min (6.29 m/s)
Compression Ratio	17.5 : 1
Engine Speed	1800 rpm
Overspeed Limit	2100 rpm
Oil Capacity	3.83 gallons (14.5 liters)
Battery	12V 72Ah x 1

Fuel System		
Maximum Fuel Flow (per hour)	16 gallons (61 liters)	
Maximum Inlet Restriction (Hg)	5.9 in. (150 mm)	
Fuel Tank Capacity	26.5 gallons (100.0 liters)	
Fuel Consumption	gph	lph
At full load	2.8	10.6
At 3/4 load	2.1	8.0
At 1/2 load	1.5	5.6
At 1/4 load	0.9	3.4

Cooling System	
Fan Load	0.94 HP (0.7 KW)
Coolant Capacity (with radiator)	2.96 gallons (11.2 liters)
Coolant Flow Rate (per minute)	15.4 gallons (58.5 liters)
Heat Rejection to Coolant (per minute)	1640 Btu (1.73 MJ)
Heat Rejection to Room (per minute)	379 Btu (0.40 MJ)
Maximum Coolant Friction Head	6.1 psi (42 kPa)
Maximum Coolant Static Head	21 feet (6.4 meters)
Ambient Temperature Rating	104°F (40°C)

Air	
Combustion Air	99 cfm (2.8 m ³ /min)
Maximum Air Cleaner Restriction	25 in. H ₂ O (6.25 kPa)
Alternator Cooling Air	526 cfm (14.9 m ³ /min)
Radiator Cooling Air	2330 cfm (66.0 m ³ /min)

Exhaust System	
Gas Flow (full load)	233 cfm (6.6 m ³ /min)
Gas Temperature	896 °F (480 °C)
Maximum Back Pressure	53.2 in. H ₂ O (13.3 kPa)

Amperage	
Rated Voltage	Maximum Amps
1Ø 120 Volt	100 Amps (4 wire)
1Ø 240 Volt	50 Amps (4 wire)
3Ø 240 Volt	108 Amps
3Ø 480 Volt	54 Amps
Main Line Circuit Breaker Rating	110 Amps
Over Current Relay Trip Set Point	54 Amps

Warranty*

Isuzu Engine

12 months from date of purchase with unlimited hours or 24 months from date of purchase with 2000 hours (whichever occurs first)

Generator

24 months from date of purchase or 2000 hours (whichever occurs first).

Trailer

12 months excluding normal wear items.

*Refer to the express written, one-year limited warranty sheet for additional information.

Generator is not intended for use in enclosed areas or where free flow of air is restricted. Backfeed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device.

Specifications are subject to change without notice.



DCA45SSI WhisperWatt™ Generator

MQ POWER DECIBEL LEVELS

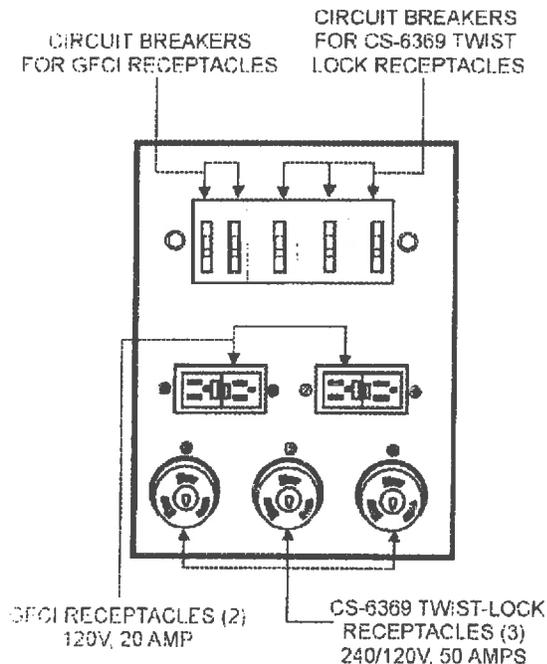
Our soundproof housing allows substantially lower operating noise levels than competitive design. WhisperWatts™ are at home on construction sites, in residential neighborhoods, and at hospitals — just about anywhere.

- 90 — Subway / truck traffic
- 80 — Average city traffic
- 70 — Inside car at 60 mph
- 65 — WhisperWatt™ at 23 feet
- 60 — Air conditioner at 20 feet
- 50 — Normal conversation

Optional Generator Features

- ☐ **Battery Charger** — provides fully automatic and self-adjusting charging to the generator's battery system.
- ☐ **Special Batteries** — long life batteries provide extra engine cranking power.
- ☐ **Low Coolant Level Shutdown** — provides protection from critically low coolant levels. Includes control panel warning light.
- ☐ **Jacket Water Heater** — for easy starting in cold weather climates.
- ☐ **Spring Isolators** — provides extra vibration protection for standby applications.
- ☐ **Trailer Mounted Package** — highway legal trailer with electric or hydraulic brakes with tandem axle configuration.

Generator Output Panel



Optional Control Features

- ☐ **Emergency Stop Switch.**
- ☐ **Audible Alarm** — alerts operator of abnormal conditions.

Optional Fuel Cell Features

- ☐ **Trailer fuel tank** — a second fuel cell located in the trailer allows for extended run time.
- ☐ **Sub-base fuel cells (double wall)** — Additional fuel cell for extended runtime operation. Contains a leak sensor, low fuel level switch, and a secondary containment tank. UL142 listed.
 - ☐ 12 hours of minimum run time.
 - ☐ 24 hours of minimum run time.

Optional Distribution Devices

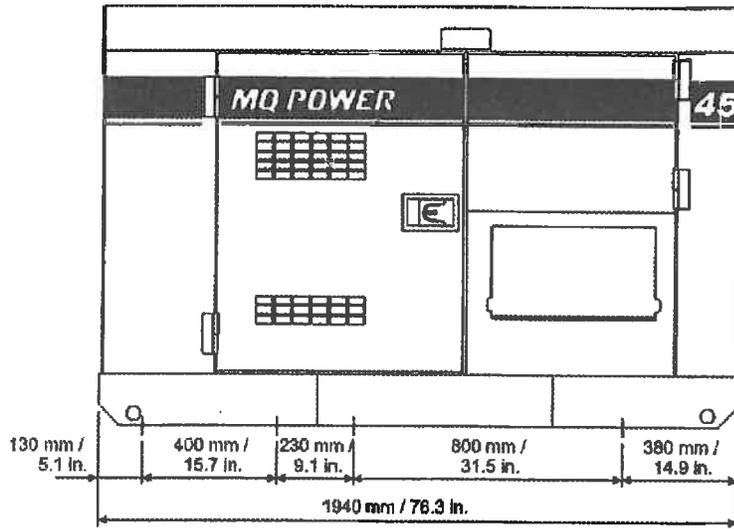
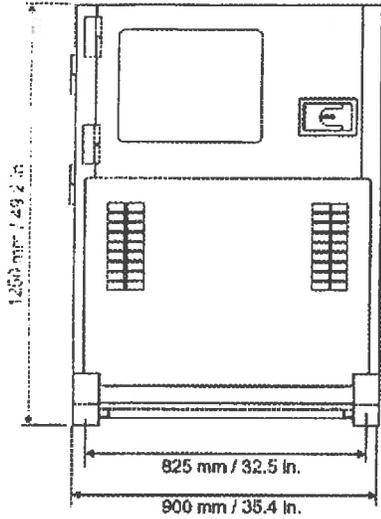
- ☐ **Cam-Lock connectors.**
- ☐ **Pin & Sleeve Connectors.**
- ☐ **AC Output Cable.**



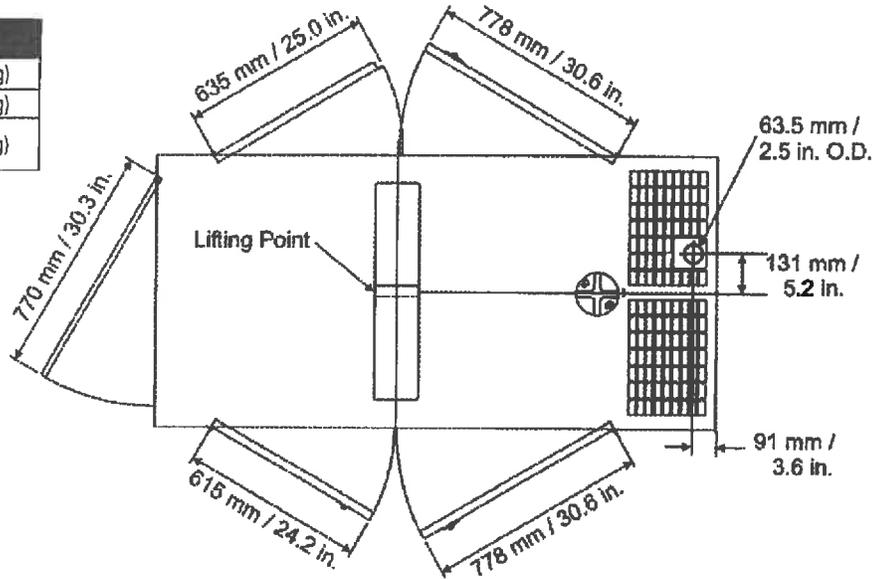
DCA45SSI

WhisperWatt™ Generator

Dimensions



Weight	
Dry Weight	2227 lbs. (1010 kg)
Wet Weight	2464 lbs. (1117 kg)
Max. Lifting Point Capacity	5150 lbs. (2335 kg)



Units manufactured by Denyo Corp.

Your MQ Power dealer is:

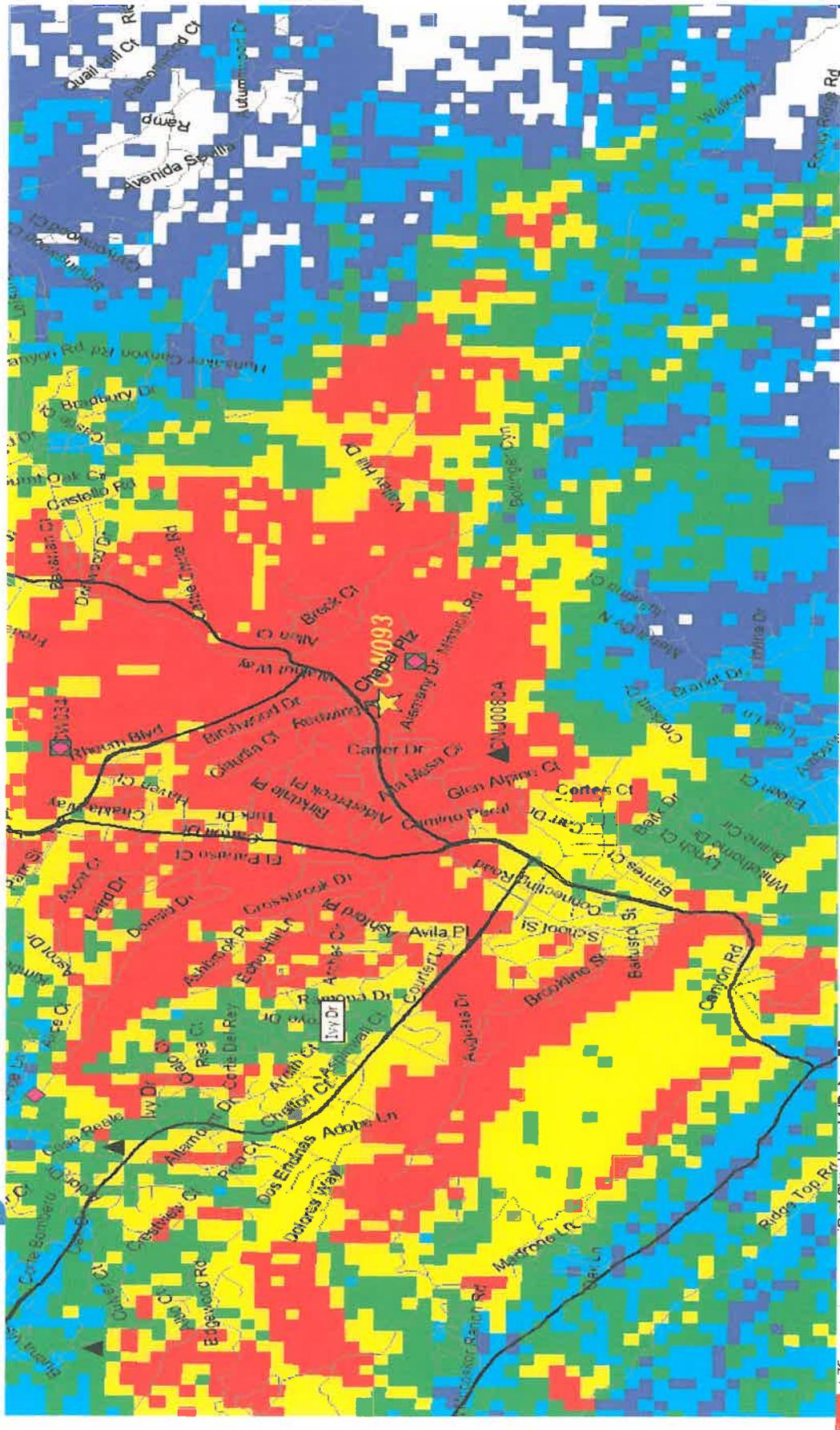


MQ POWER
 POST OFFICE BOX 6254
 CARSON, CA 90749
 310-537-3700 • 800-883-2551
 FAX: 310-632-2656
 E-MAIL: mqpower@multiquip.com
 WEBSITE: www.mqpower.com

Coverage Maps CW093 St. Mary's College

December 27th 2010

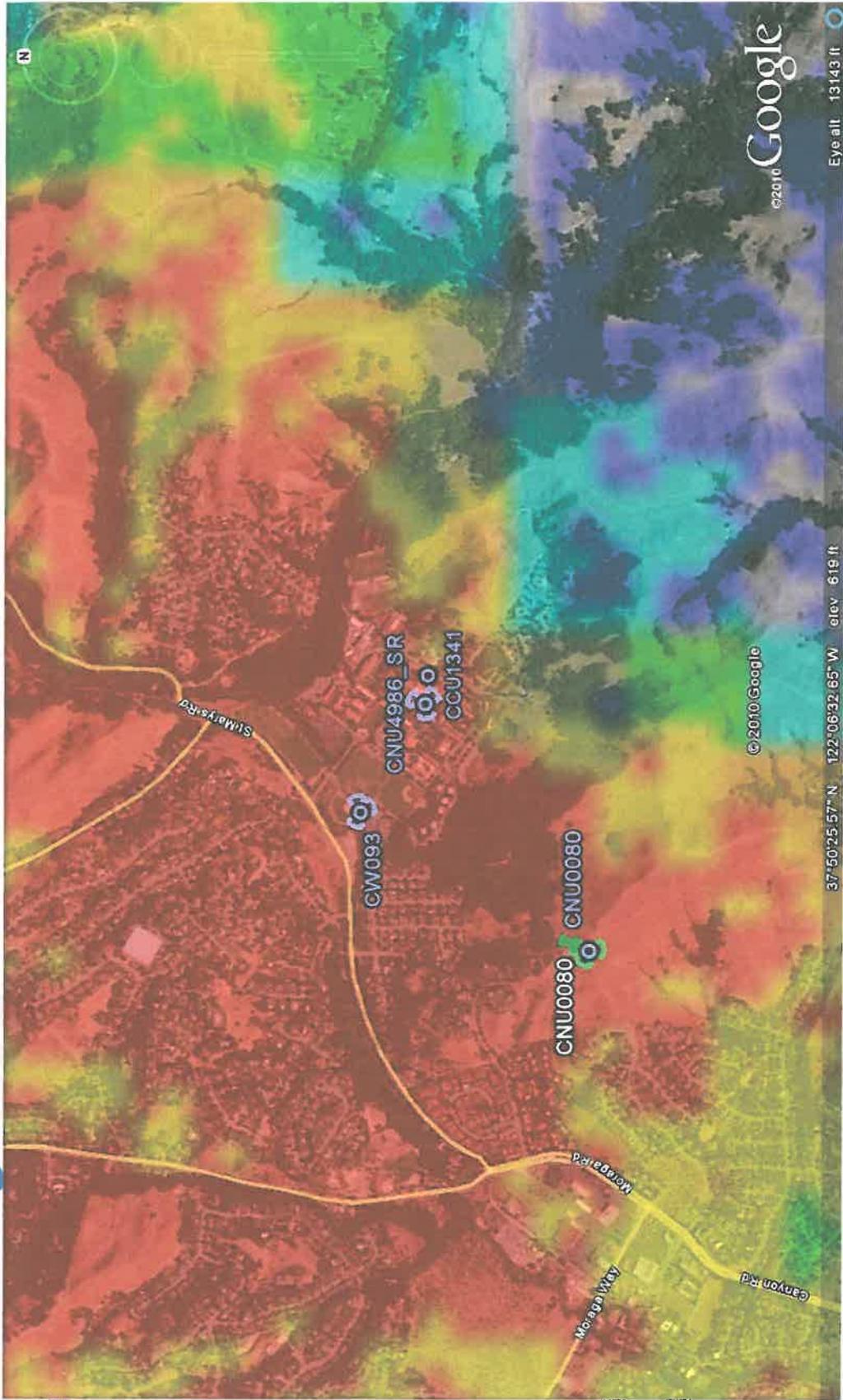
Coverage with CW093



Red	Best Signal Level (dBm) >= -75
Yellow	Best Signal Level (dBm) >= -85
Green	Best Signal Level (dBm) >= -95
Blue	Best Signal Level (dBm) >= -105
Dark Blue	Best Signal Level (dBm) >= -115



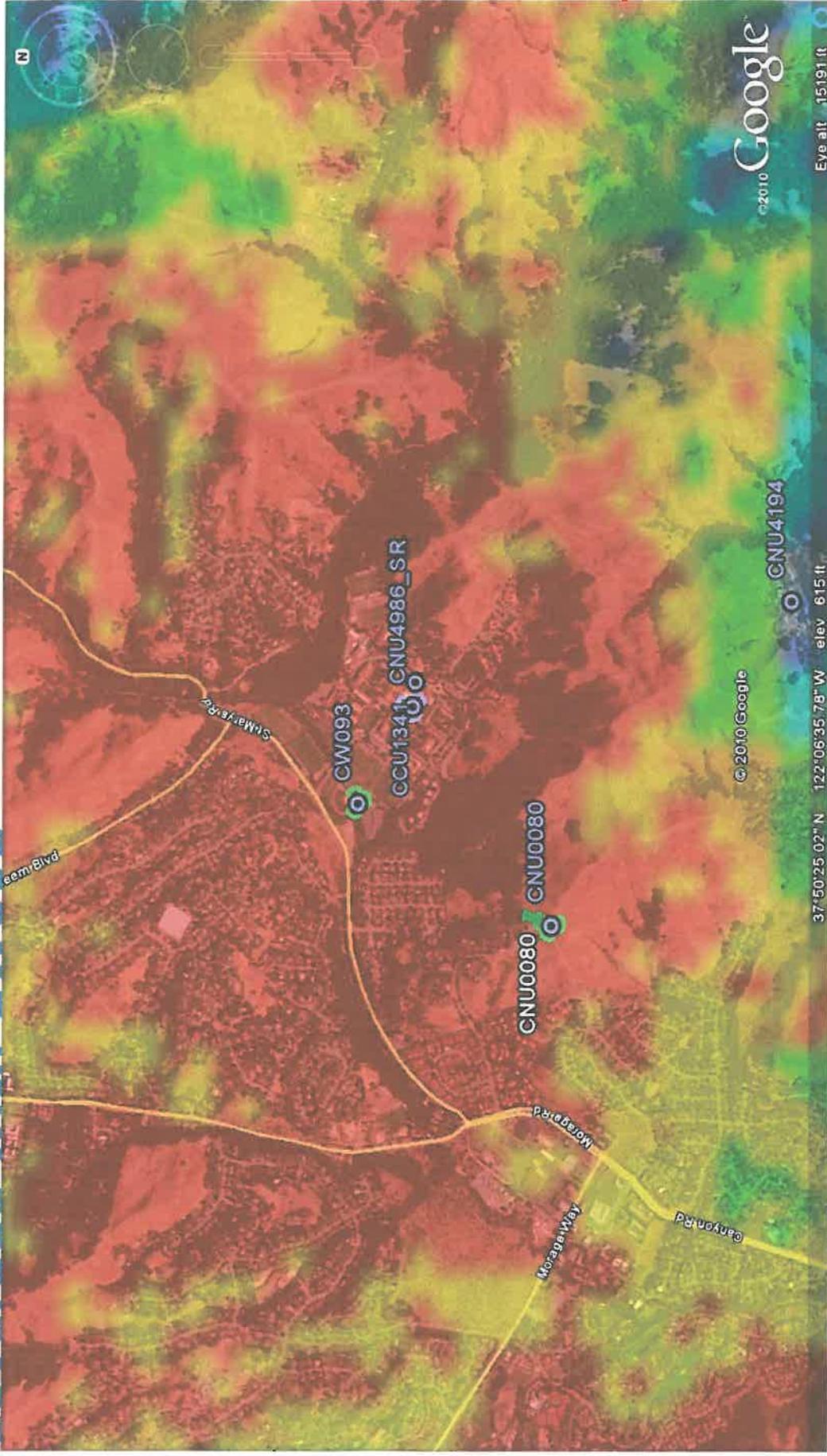
Coverage without CW093



-75	Best Signal Level (dBm) >= -75
-85	Best Signal Level (dBm) >= -85
-95	Best Signal Level (dBm) >= -95
-105	Best Signal Level (dBm) >= -105
-115	Best Signal Level (dBm) >= -115



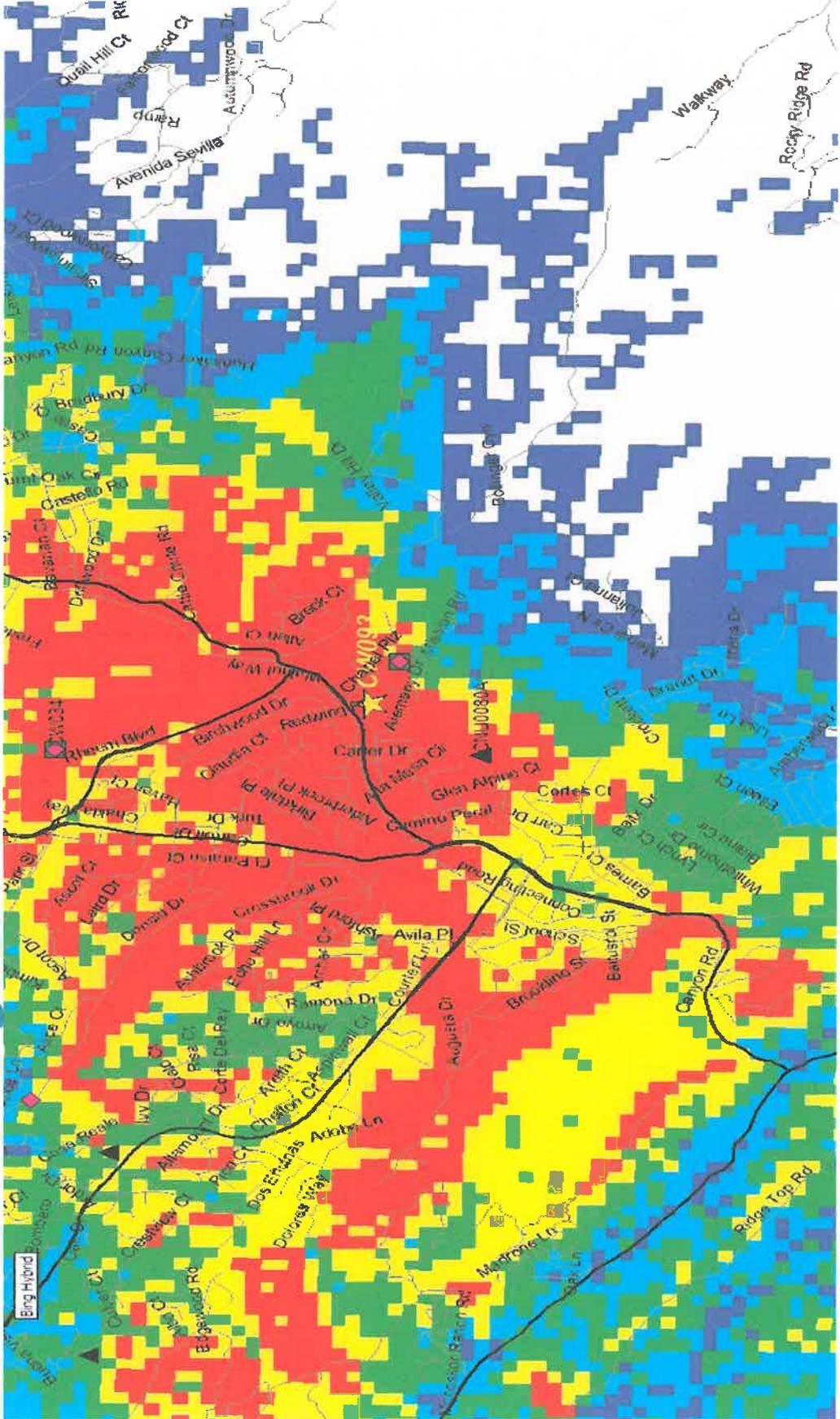
Coverage with CW093



-75	Best Signal Level (dBm) >=-75
-85	Best Signal Level (dBm) >=-85
-95	Best Signal Level (dBm) >=-95
-105	Best Signal Level (dBm) >=-105
-115	Best Signal Level (dBm) >=-115



Actual Coverage Without CW093



-75	Best Signal Level (dBm) >=-75
-85	Best Signal Level (dBm) >=-85
-95	Best Signal Level (dBm) >=-95
-105	Best Signal Level (dBm) >=-105
-115	Best Signal Level (dBm) >=-115





Radio Frequency Analysis

AT&T Mobility

Site # CC1431

"St Mary's College (COW)"

1928 St. Mary's Road

Moraga, CA 94556

By: Evan Wappel

Date: 1/6/2011



Report Summary

Based upon information provided by AT&T Mobility and the design engineer, and using the calculated method for determining RF field strength, it is the engineer's opinion that the proposed AT&T Mobility site to be located at 1928 St. Mary's Road, Moraga, CA 94556 will comply with the FCC's current prevailing standard for limiting human exposure to RF energy.

Due to the mounting method utilized, the general public would not normally be able to approach the antennas. Therefore, no significant impact on the general population is expected. The calculated electromagnetic field strength level in publicly accessible areas is less than the existing standard allows for exposure of unlimited duration. Additionally, due to the mounting method used, no significant impact on the environment is expected.

For personnel who work within 11' of the face of an antenna, a training program in exposure to RF fields is recommended. Maintenance personnel should be instructed to contact the appropriate Carrier prior to working in front of an antenna.

Recommended Signage

There is no RF caution signs required at the site.

Background

Evan Wappel is the Market RF Safety Coordinator for AT&T Mobility and is responsible for conducting a Radio Frequency (RF) electromagnetic analysis for the AT&T Mobility site to be located at 1928 St. Mary's Road, Moraga, CA 94556. This analysis consists of a review of the proposed site conditions, calculation of the estimated RF field strength of the antennas, and the provision of a comparison of the estimated field strength with the Federal Communication Commission (FCC) recommended guidelines for human exposure to RF electromagnetic fields.



Site Description

Based upon the information provided by AT&T Mobility, AT&T Mobility panel antennas will be mounted on a temporary "COW" tower approximately 53' (to bottom of antennas) above ground level. The antennas will be oriented such that the main lobes are oriented toward the horizon. Normal public access to the front of the antennas is not expected due to the mounting location and method utilized. Occupational access to the front of the antennas is not normally expected.

RF Field Strength Calculation Methodology

A generally accepted method is used to calculate the expected RF field strength. The method uses the FCC's recommended equation¹ which predicts field strength on a worst case basis by

$$\text{Equation 1} \quad S = \frac{(2)^2 PG}{4\pi R^2} = \frac{PG}{\pi R^2} = \frac{EIRP}{\pi R^2}$$

doubling the predicted field strength. The following equation is used to predict maximum RF field strength:

Where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

¹ Reference Federal Communication Commission Office of Engineering Technology Bulletin 65



Cumulative Study

The maximum calculated AT&T Mobility fields at ground level are 1.2% of the existing standard for general population uncontrolled exposure. Any calculations of additional carriers are not based on actual data for any carrier.

See Table 1 for the FCC's guidelines on Maximum Permissible Exposure (MPE). Note that the RF ranges referenced for this analysis are the ranges of 300 – 1500 Mhz, and 1500 – 100,000 Mhz shown in Table 1, which is included in Appendix A.

Exposure Environments

The FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. The decision as to which tier applies in a given situation should be based on the application of the following definitions.

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 population/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 population/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 always fall under this category when exposure is not employment-related.



For purposes of applying these definitions, awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program. Warning signs and labels can also be used to establish such awareness as long as they provide information, in a prominent manner, on risk of potential exposure and instructions on methods to minimize such exposure risk. For example, a sign warning of RF exposure risk and indicating that individuals should not remain in the area for more than a certain period of time could be acceptable.

Another important point to remember concerning the FCC's exposure guidelines is that they constitute *exposure* limits (not *emission* limits), and they are relevant only to locations that are *accessible* to workers or members of the public. Such access can be restricted or controlled by appropriate means such as the use of fences, warning signs, etc., as noted above. For the case of occupational/controlled exposure, procedures can be instituted for working in the vicinity of RF sources that will prevent exposures in excess of the guidelines. An example of such procedures would be restricting the time an individual could be near an RF source or requiring that work on or near such sources be performed while the transmitter is turned off or while power is appropriately reduced.

Qualifications of Reporting Engineer

Mr. Wappel has been involved in the analysis of RF emissions since 1999. He has designed numerous RF systems including both site design and RF system design. He is an Electrical Engineer, and all contents of this report are true and correct to the best of his knowledge.

Signed:  Date: 1/6/2011
Evan Wappel, BSc,EE



APPENDIX A Term Definitions

Exposure Exposure occurs whenever and wherever a person is subjected to electric, magnetic or electromagnetic fields other than those originating from physiological processes in the body and other natural phenomena.

Exposure, partial-body. Partial-body exposure results when RF fields are substantially nonuniform over the body. Fields that are nonuniform over volumes comparable to the human body may occur due to highly directional sources, standing-waves, re-radiating sources or in the near field.

General population/uncontrolled exposure. For FCC purposes, applies to human exposure to RF fields when the general public is 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 always fall under this category when exposure is not employment-related.

Maximum permissible exposure (MPE). The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with an acceptable safety factor.

Occupational/controlled exposure. For FCC purposes, applies to human exposure to RF fields when 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 population/uncontrolled limits (see definition above), 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.



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 ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

*Plane-wave equivalent power density

NOTE 1: *Occupational/controlled* limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: *General population/uncontrolled* exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.



Drawing of site layout:

