Agenda Item #____

CITY OF SUNNYVALE
REPORT
Planning Commission

January 12, 2009

SUBJECT: **2008-1119 – AT&T Mobility** [Applicant] **Roman Catholic Welfare Corp of San Jose** [Owner]: Application for a property located at **1399 Hollenbeck Avenue** (near Cascade Dr.) in a P-F (Public Facility) Zoning District.

Motion: Use Permit for a new tree pole with six panel antennas, two future microwave dish antennas and ancillary ground equipment.

REPORT IN BRIEF

Existing Site Conditions: Church and School

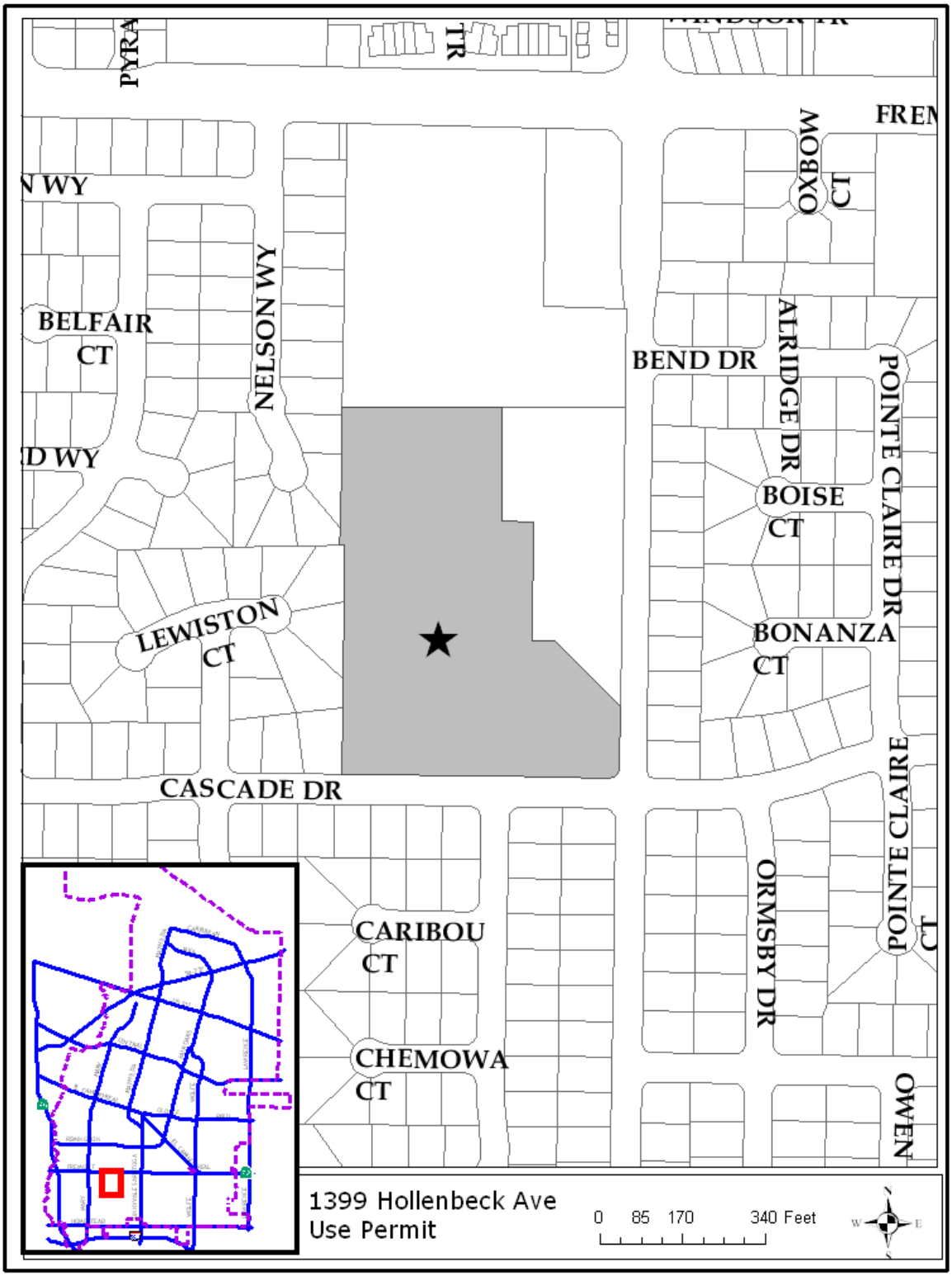
Surrounding Land Uses

North	Single Family Residential
South	Single Family Residential
East	Single Family Residential
West	Single Family Residential

Issues: Aesthetics

Environmental Status: A Negative Declaration has been prepared in compliance with California Environmental Quality Act provisions and City Guidelines.

Staff Recommendation: Approve with Conditions


PYRA
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BOISE CT
LEWISTON CT
BONANZA CT
CASCADE DR
POINTE CLAIRE CT
ORMSBY DR
CARIBOU CT
CHEMOWA CT
OWEN
1399 Hollenbeck Ave
Use Permit
0 85 170 340 Feet

PROJECT DATA TABLE

	EXISTING	PROPOSED	REQUIRED/ PERMITTED
General Plan	School	Same	School
Zoning District	P-F	Same	P-F
Lot Size (s.f.)	321,908	Same	No min.
Equipment Enclosure Area (s.f.)	N/A	420	No max.
Pole (monopine) Height (ft.)	N/A	65'	65' max.
Setbacks (Facing Cascade Drive)			
Setback Cascade Drive	N/A	151' 7"	20' min.
Setback to adjacent residential uses to the west	N/A	254' 3"	6' min. (15' combined)
Setback to Hollenbeck Avenue	N/A	300'	9' min. (15' combined)
Rear Setback	N/A	608' 7"	20' min.

ANALYSIS

Description of Proposed Project

The project consists of an application for a Use Permit for the construction of a 65' monopole disguised as a tree at the Resurrection Parish Church. Six panel antennas are planned in conjunction with the pole and two microwave dish antennas are to be placed on the pole in the future. Additional associated ground equipment will be placed within an enclosed fenced area near the base of the new structure. The project site is located at 1399 Hollenbeck Avenue.

Background

Previous Actions on the Site: The following table summarizes previous planning applications related to the subject site.

File Number	Brief Description	Hearing/Decision	Date
2008-0684	Use Permit for a portable classroom on the school grounds	Administrative Hearing/ Approved	7/30/2008

File Number	Brief Description	Hearing/Decision	Date
2004-0321	Use Permit to allow the replacement of an existing cross on top of the church with a new cross containing telecommunication antennas (T-Mobile)	Administrative Hearing/ Approved	5/26/2004
2000 - 0719	Use Permit (on a neighboring site to the north) for roof mounted antennas utilizing a cross on existing church building (Sprint)	Administrative Hearing/ Approved	11/29/2000

As stated above, the project site already accommodates one telecommunication facility (T-Mobile) which was approved in 2004 (2004-0321). Antennas were place within a new cross affixed to the top of the church. The necessary ground equipment was placed adjacent to the building. A similar project (2000-0719) had already been approved and constructed at the neighboring Presbyterian Church of Sunnyvale located adjacent to the north.

Environmental Review

A Negative Declaration has been prepared in compliance with the California Environmental Quality Act provisions and City Guidelines. An initial study has determined that the proposed project would not create any significant environmental impacts (see Attachment C, Initial Study).

Use Permit

Use: The purpose of the facility is to provide telecommunication services to the surrounding residential neighborhood. The pole, disguised as a pine tree, would be approximately 65' tall. Six panel antennas are proposed to be installed on the pole with future co-location capabilitiy. Associated ground equipment is also proposed near the base of the pole.

Site Layout and Design: The current site consists of the Parish Center, church, and parking lot located along Hollenbeck Avenue. Athletic fields, rectory, and classrooms are also located on-site. The proposed location would be behind the church and Parish center. The subject tree pole is approximately 151' 7" from the property line adjacent to Cascade Drive and 300' from Hollenbeck (although 186' 4' from the property line which runs through the parking lot). The pole has been strategically placed on site within an existing

grove of trees. The monopine is approximately 254' from the closest residence. (See Site and Architectural Plans in Attachment D for more detail.)

The proposed 65' AT&T monopole is designed as a faux tree, or monopine, with a 24-inch trunk diameter. Six antennas would be located towards the top of the structure (58' at center of antennas). The future dish antennas would be located at approximately 51 feet. Additional space below is left for future co-locations.

Three arrays, each containing two antennas would project approximately 1' from the pole. The drip line of the faux tree extends a distance of approximately 6.5' from the center of the pole. The design incorporates artificial branches that partially obscure the view of the antennas from the surrounding area. Photosimulations are also provided of the site in Attachment F.

Staff has included specific design criteria under Condition of Approval #3 that ensures that the design of the "monopine" is compatible to nearby trees in the area. To ensure that the proposed tree has a realistic appearance, staff has included a condition requiring that artificial branches of different widths must be used at different elevations while still meeting the objective of screening the antennas. The final design of the monopine shall be reviewed and approved by the Director of Community Development, prior to issuance of Building permits. Staff has also included Condition of Approval #3E which requires that the pole be able to accommodate up to two additional carriers.

A 6' chain link fence with vinyl slats will enclose a 420 square foot area for the ground equipment The chain link fencing will match existing fencing that encloses the nearby yard of the Parish Center. Initial consideration was explored by staff to relocate the proposed equipment area to a location adjacent to the church within the building design, as had been done with the previous telecommunications project at the site. It was determined that adequate area could not be accommodated adjacent to the building and a separate enclosed area was needed. It was determined that the proposed location provided the needed area with the least visual impact to neighboring sites and public streets.

Landscaping: The proposal does not include the removal of any existing trees on-site. The enclosed equipment area will be located in a grassed area behind an existing fenced area adjacent to the Parish Center. The fenced area is hidden from both street frontages. An existing grove of trees partially screens the area from the north, east and west, while existing building blocks the view from the south. The church also obstructs the enclosed area to the east.

To improve the visual aesthetics and soften the view of the chain link fence, internally to the site, staff is recommending additional vegetation in the form of small shrubs around the periphery of the fence (Condition of Approval #5C)

Parking/Circulation: Existing parking is adequate for the proposed use. The proposed facility requires only periodic service at the site. Most of the service can be done remotely and does not require a visit to the site.

Radio Frequency (RF) Emissions Exposure: The FCC is the final authority on safety of telecommunications facilities. If the FCC has determined the facility to be in compliance with federal standards, the City is not permitted to make additional judgments on health and safety issues. The application can be reviewed by the City for compliance with design and location criteria only. The attached RF Emissions report (Attachment E) provides information about the proposed RF emissions of the facility. These results indicate the RF emissions at the site for the applicant (AT&T) and all other carriers (Sprint and T-Mobile) combined are considered safe for inhabited areas.

Compliance with Development Standards/Guidelines: The project meets the criteria that free-standing telecommunications facilities not be readily visible to surrounding properties, as it will be designed as a faux tree pole to blend in with the surrounding landscape. The ancillary ground equipment will also be screened from view, as the cabinets are screened by the proposed chain-link fence with vinyl slats and existing structures on-site. Additional screening vegetation will be required per Conditions of Approval.

Expected Impact on the Surroundings: The impacts to the surrounding residential properties, streets and school have been reduced to the fullest extent possible. Visual impacts of the pole and proposed antennas have been reduced by using a camouflage design and locating the monopine within a grove of mature trees. The ground equipment is screened from view by fencing and existing structures on-site. Impacts related to noise will be limited to occur during the initial phases of construction and will meet applicable standards during operation. As stated above, compliance to RF emissions has been demonstrated to be met, as required by the FCC.

Fiscal Impact

No fiscal impacts other than normal fees and taxes are expected.

Public Contact

Staff has not received any written comments related to the project.

Notice of Negative Declaration and Public Hearing	Staff Report	Agenda
• Published in the *Sun* newspaper • Posted on the site • 102 notices mailed to the property owners and residents within 300 ft. of the project site	• Posted on the City of Sunnyvale's Website • Provided at the Reference Section of the City of Sunnyvale's Public Library	• Posted on the City's official notice bulletin board • City of Sunnyvale's Website

Conclusion

Findings and General Plan Goals: Staff was able to make the required Findings based on the justifications for the Use Permit. Recommended Findings and General Plan Goals are located in Attachment A.

Conditions of Approval: Recommended Conditions of Approval are located in Attachment B.

Alternatives

1. Adopt the Negative Declaration and approve the Use Permit with attached conditions.
2. Adopt the Negative Declaration and approve the Use Permit with modified conditions.
3. Adopt the Negative Declaration and deny the Use Permit.
4. Do not adopt the Negative Declaration and direct staff as to where additional environmental analysis is required.

Recommendation

Alternative 1.

Prepared by:

Ryan M. Kuchenig
Project Planner

Reviewed by:

Gerri Caruso
Principal Planner

Attachments:

A. Recommended Findings
B. Recommended Conditions of Approval
C. Negative Declaration
D. Site and Architectural Plans
E. RF Emissions Report
F. Photosimulations

Recommended Findings - Use Permit

Goals and Policies that relate to this project are:

Telecommunications Policy
Action Statement A.1.e- Support retention of local zoning authority for cellular towers, satellite dish antennas, and other telecommunications equipment, facilities and structures.

The zoning code requires that the location of telecommunication facilities be designed with sensitivity to the surrounding areas. The proposed antennas will be camouflaged within a "faux tree" pole which minimizes impacts to surrounding properties. The proposed facility will provide additional cell phone coverage to surrounding area.

Land Use and Transportation Sub-Element
N1.3. Promote an attractive and functional commercial environment.

N1.5 Establish and monitor standards for community appearance and property maintenance.

The proposed project is similar to other tree pole designs utilized elsewhere in the city and has been conditioned similarly to ensure adequate final design review. The location of the ground equipment is strategically placed to limit impacts to surrounding residential properties.

1. The proposed use attains the objectives and purposes of the General Plan of the City of Sunnyvale. *(Finding Met)*

   The Wireless Telecommunications Policy promotes retention of local zoning authority when reviewing telecommunications facilities. The zoning code requires that the location of telecommunication facilities be designed with sensitivity to the surrounding areas. The proposed facility is compliant with all wireless telecommunication development standards:
   - *The project meets all FCC RF emissions standards.*
   - *To the extent possible, the monopine is proposed to be located within an area surrounded by mature trees to reduce its overall visual impact.*
   - *Although almost completely screened by existing buildings, the ground equipment enclosure will match existing fencing in the area and requirements to plant screening vegetation will help improve visual impacts internally to the site.*

2. The proposed use ensures that the general appearance of proposed structures, or the uses to be made of the property to which the application refers, will not impair either the orderly development of, or the existing uses being made of, adjacent properties. *(Finding Met)*

   The impacts to the surrounding residential properties, streets have been reduced to fullest extent possible through design and site layout. The proposed project meets the visual standards established by the City for telecommunication facilities as it is designed to create the least possible aesthetic impact. The RF emissions resulting from the project are substantially below the federal limits.

Recommended Conditions of Approval - Use Permit

In addition to complying with all applicable City, County, State and Federal Statutes, Codes, Ordinances, Resolutions and Regulations, Permittee expressly accepts and agrees to comply with the following conditions of approval of this Permit:

Unless otherwise noted, all conditions shall be subject to the review of approval of the Director of Community Development.

1. GENERAL CONDITIONS

A. Execute a Use Permit document prior to issuance of the building permit.

B. Project shall be in conformance with the plans approved at the public hearing(s). Minor changes may be approved by the Director of Community Development, major changes may be approved at a public hearing.

C. Any major site and architectural plan modifications shall be treated as an amendment of the original approval and shall be subject to approval at a public hearing except that minor changes of the approved plans may be approved by staff level by the Director of Community Development.

D. The Conditions of Approval shall be reproduced on a page of the plans submitted for a Building permit for this project.

E. The Use Permit for the use shall expire if the use is discontinued for a period of one year or more.

F. The Use Permit shall be null and void two years from the date of approval by the final review authority at a public hearing if the approval is not exercised, unless a written request for an extension is received prior to expiration date and is approved by the Director of Community Development.

G. Any expansion or modification of the approved use shall be approved by separate application at a public hearing by the Planning Commission.

H. Each facility must comply with any and all applicable regulations and standards promulgated or imposed by any state or federal agency, including but not limited to, the Federal Communications Commission and Federal Aviation Agency.

I. The owner or operator of any facility shall submit and maintain current at all times basic contact and site information on a form to

be supplied by the city. Applicant shall notify city of any changes to the information submitted within thirty (30) days of any change, including change of the name or legal status of the owner or operator. This information shall include, but is not limited to the following:

1. Identity, including name, address and telephone number, and legal status of the owner of the facility including official identification numbers and FCC certification, and if different from the owner, the identity and legal status of the person or entity responsible for operating the facility.
2. Name, address and telephone number of a local contact person for emergencies.
3. Type of service provided.

L. The owner or operator shall maintain, at all times, a sign mounted on site showing the operator name, site number and emergency contact telephone number.

M. The owner or operator of any facility shall obtain and maintain current at all times a business license as issued by the City.

N. All facilities and related equipment, including lighting, fences, shields, cabinets, and poles, shall be maintained in good repair, free from trash, debris, litter and graffiti and other forms of vandalism, and any damage from any cause shall be repaired as soon as reasonably possible so as to minimize occurrences of dangerous conditions or visual blight. Graffiti shall be removed from any facility or equipment as soon as practicable, and in no instance more than forty-eight (48) hours from the time of notification by the city.

O. Each owner or operator of a facility shall routinely and regularly inspect each site to ensure compliance with the standards set forth in the Telecommunications Ordinance.

P. The wireless telecommunication facility provider shall defend, indemnify, and hold harmless the city or any of its boards, commissions, agents, officers, and employees from any claim, action or proceeding against the city, its boards, commission, agents, officers, or employees to attack, set aside, void, or annul, the approval of the project when such claim or action is brought within the time period provided for in applicable state and/or local statutes. The city shall promptly notify the provider(s) of any such claim, action or proceeding. The city shall have the option of coordinating in the defense. Nothing contained in this stipulation shall prohibit the city from participating in a defense of any claim, action, or

proceeding if the city bears its own attorney's fees and costs, and the city defends the action in good faith.

Q. Facility lessors shall be strictly liable for any and all sudden and accidental pollution and gradual pollution resulting from their use within the city. This liability shall include cleanup, intentional injury or damage to persons or property. Additionally, lessors shall be responsible for any sanctions, fines, or other monetary costs imposed as a result of the release of pollutants from their operations. Pollutants mean any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals, electromagnetic waves and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

R. Wireless telecommunication facility operators shall be strictly liable for interference caused by their facilities with city communication systems. The operator shall be responsible for all labor and equipment costs for determining the source of the interference, all costs associated with eliminating the interference, (including but not limited to filtering, installing cavities, installing directional antennas, powering down systems, and engineering analysis), and all costs arising from third party claims against the city attributable to the interference.

S. No wireless telecommunication facility shall be sited or operated in such a manner that is poses, either by itself or in combination with other such facilities, a potential threat to public health. To that end no facility or combination of faculties shall produce at any time power densities in any inhabited area that exceed the FCC's Maximum Permissible Exposure (MPE) limits for electric and magnetic field strength and power density for transmitters or any more restrictive standard subsequently adopted or promulgated by the city, county, the state of California, or the federal government.

T. Each facility shall be operated in such a manner so as to minimize any possible disruption caused by noise. At no time shall equipment noise from any source exceed an exterior noise level of 60 dB during daytime hours or 50 dB during nighttime hours as measured at the property line. Backup generators shall be allowed only during emergencies, and shall not be tested on weekends or holidays, or between the hours of 10:00 p.m. and 7:00 a.m. on weekday nights.

U. All new signs shall be in conformance with Sunnyvale Municipal Code.

2. COMPLY WITH OR OBTAIN OTHER PERMITS

A. The applicant shall test any wireless telecommunications site installed in the City of Sunnyvale within 15 days of operating the tower. The test shall confirm that any Emergency 911 wireless call made through the wireless telecommunications site shall provide Enhanced 911 capability (including phase 2 information when available from the caller's device) and direct the call to the City of Sunnyvale Department of Public Safety dispatcher, ensuring phase 2 information is transferred. If the call is to be directed elsewhere pursuant to State and Federal law the applicant shall ensure that the Enhanced 911 information transfers to that dispatch center. This capability shall be routinely tested to ensure compliance as long as the approved wireless telecommunications site is in service.

3. DESIGN/EXTERIOR COLORS AND MATERIALS

A. The monopole shall be disguised as a pine tree. Foliage shall start at 10 ft. above ground level. The pole shall have full bark.

B. The applicant shall submit the tree pole design and specifications, including branch design and density of foliage to the Director of Community Development for approval before a building permit can be issued.

C. Maintain the tree pole annually to make sure it remains in approximately the same shape when it was put in and repaired if needed. Submit the maintenance report to the Director of Community Development for review.

D. Artificial branches of different widths must be used at different elevations to give the tree a more realistic appearance while still meeting the objective of screening the antennas. Final design shall be reviewed and approved by the Director of Community Development.

E. The pole shall be structurally designed to support up to two additional carriers, unless the applicant can demonstrate that they negatively affect the aesthetic nature of the tree pole.

4. FENCES

A. Design and location of any proposed fencing and/or walls are subject to the review and approval by the Director of Community Development.

5. LANDSCAPING

A. No tree removal permit shall be approved where the reason for removal is interference with the telecommunications site.

B. All landscaping shall be installed in accordance with the approved landscape plan and shall thereafter be maintained in a neat, clean, and healthful condition.

C. Additional landscaping, including grasses and small shrubs, shall be planted around the entire periphery of the proposed equipment enclosure building.

PLANNING DIVISION
CITY OF SUNNYVALE
P.O. BOX 3707
SUNNYVALE, CALIFORNIA 94088-3707

File Number: 2008-1119
No. 08-18

ATTACHMENT C
Page 1 of 21

NOTICE OF INTENT TO ADOPT NEGATIVE DECLARATION

This form is provided as a notification of an intent to adopt a Negative Declaration which has been prepared in compliance with the provisions of the California Environmental Quality Act of 1970, as amended, and Resolution #193-86.

PROJECT TITLE:

Application for **Use Permit** by **AT&T Wireless**.

PROJECT DESCRIPTION AND LOCATION (APN):

2008-1119 – AT&T Wireless [Applicant] **Roman Catholic Welfare Corp of San Jose** [Owner]: Application for a Use Permit for a new tree pole with six panel antennas, two future microwave dish antennas and ancillary ground equipment. The property is located at **1399 Hollenbeck Avenue** (near Cascade Dr.) in a P-F (Public Facility) Zoning District. (APN: 323-06-005) RK

WHERE TO VIEW THIS DOCUMENT:

The **Negative Declaration,** its supporting documentation and details relating to the project are on file and available for review and comment in the Office of the Secretary of the Planning Commission, City Hall, 456 West Olive Avenue, Sunnyvale.

This **Negative Declaration** may be protested in writing by any person prior to 5:00 p.m. on **Monday, January 12, 2009**. Protest shall be filed in the Department of Community Development, 456 W. Olive Avenue, Sunnyvale and shall include a written statement specifying anticipated environmental effects which may be significant. A protest of a **Negative Declaration** will be considered by the adopting authority, whose action on the protest may be appealed.

HEARING INFORMATION:

A public hearing on the project is scheduled for:

Monday, January 12, 2009 at 8:00 p.m. in the Council Chambers, City Hall, 456 West Olive Avenue, Sunnyvale.

TOXIC SITE INFORMATION:

(No) listed toxic sites are present at the project location.

Circulated On December 19, 2008

Signed: _____
Gerri Caruso, Principal Planner

INITIAL STUDY
City of Sunnyvale
Department of Community Development
Planning Division
P.O. Box 3707
Sunnyvale, CA 94088-3707

Project #: 2008-1119
Project Address: 1399 Hollenbeck Avenue
Applicant: AT&T Mobility c/o Black Dot Wireless

1.	Project Title:	Application for a Use Permit to allow a tree pole with 6 panel antennas and 2 future microwave dish antennas with ancillary ground equipment.
2.	Lead Agency Name and Address:	City of Sunnyvale, Community Development Department, Planning Division
3.	Contact Person and Phone Number:	Ryan M. Kuchenig, Associate Planner (408) 730-7431
4.	Project Location:	1010 Sunnyvale-Saratoga Road, Sunnyvale, CA 94087
5.	Project Sponsor's Name and Address:	AT&T Mobility c/o Black Dot Wireless 3970 Breuner Avenue Sacramento, CA 95819
6.	General Plan Designation:	School
7.	Zoning:	PF (Public Facility)

8. Description of the Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. (Attach additional sheets if necessary)

The project consists of an application for a Use Permit for the construction of a 65 foot monopole disguised as a tree. The purpose of the facility is to provide telecommunication services to the surrounding residential neighborhood. Additional associated ground equipment will be placed within an enclosed fenced area near the base of the new structure. The applicant has submitted an RF emissions report indicating compliance with FCC standards. The applicant will be required to obtain a building permit subsequent to planning approval of the project.

9.	Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)	The site is comprised of the Resurrection Parish Church. Directly north of the church, a shared parking lot connects with the Presbyterian Church of Sunnyvale. Single family uses are located to the east, south and west of the project site.
10.	Other public agencies whose approval is required (e.g. permits, financing approval, or participation agreement).	None

Project #: 2008-1119
Project Address: 1399 Hollenbeck Avenue
Applicant: AT&T Mobility c/o Black Dot Wireless

INITIAL STUDY ENVIRONMENTAL CHECKLIST

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

θ	Aesthetics	θ	Hazards & Hazardous Materials	θ	Public Services
θ	Agricultural Resources	θ	Hydrology/Water Quality	θ	Recreation
θ	Air Quality	θ	Land Use/Planning	θ	Transportation/Traffic
θ	Biological Resources	θ	Mineral Resources	θ	Utilities/Service Systems
θ	Cultural Resources	θ	Noise	θ	Mandatory Findings of Significance
θ	Geology/Soils	θ	Population/Housing		

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. θ

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. X

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. θ

I find that the proposed project MAY have a "potential significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. θ

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. θ

Signature _____ Date 12-15-08

Printed Name: Ryan M. Kuchenig For: *City of Sunnyvale*

Project #: 2008-1119
Project Address: 1399 Hollenbeck Avenue
Applicant: AT&T Mobility c/o Black Dot Wireless

INITIAL STUDY ENVIRONMENTAL CHECKLIST

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 17, "Earlier Analysis," may be cross-referenced).

5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (d). In this case, a brief discussion should identify the following:
   a. Earlier Analysis Used. Identify and state where they are available for review.
   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The analysis of each issue should identify: (a) the significance criteria or threshold used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance.

Project #: 2008-1119
Project Address: 1399 Hollenbeck Avenue
Applicant: AT&T Mobility c/o Black Dot Wireless

INITIAL STUDY ENVIRONMENTAL CHECKLIST

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
I. AESTHETICS. Would the project:					
a. Have a substantial adverse effect on a scenic vista?	θ	0	X	θ	See Discussion
b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	θ	θ	θ	X	2, 94
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	θ	0	X	θ	See Discussion
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	θ	0	θ	X	2, 94
II. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	θ	θ	0	X	3, 97, 100
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.	θ	θ	0	X	3, 97, 100, 111
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	θ	θ	0	X	3, 96, 97, 100, 111
d. Expose sensitive receptors to substantial pollutant concentrations?	θ	0	θ	X	62, 63, 111, 112
e. Create objectionable odors affecting a substantial number of people?	θ	θ	θ	X	111, 112

Project #: 2008-1119
Project Address: 1399 Hollenbeck Avenue
Applicant: AT&T Mobility c/o Black Dot Wireless

INITIAL STUDY ENVIRONMENTAL CHECKLIST

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
III. BIOLOGICAL RESOURCES:					
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	0	θ	θ	X	2, 94, 111
b. Have a substantially adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S Wildlife Service? *Storm Water Runoff Guidance*: Include aquatic and wetland habitats as part of the sensitive habitat review. Also evaluate adverse changes to sensitive habitats that favor the development of mosquitoes and other biting flies that may pose a threat to public health. Aquatic and wetland habitats such as those found near Stevens Creek, Calabazas Creek, Sunnyvale East Channel, Sunnyvale West Channel, El Camino Channel, Moffett Channel, Guadalupe Slough and the Baylands are considered sensitive habitat areas.	θ	0	θ	X	2, 94, 111, 112, 109
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	θ	θ	θ	X	2, 94, 109
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?	θ	θ	θ	X	2, 94, 111, 112, 109
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	θ	θ	θ	X	2, 41
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?	θ	0	θ	X	2, 41, 94, 111

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
IV. CULTURAL RESOURCES. Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	θ	θ	θ	X	2, 59-61, 94
b. Cause a substantial adverse change in the significance of an archaeological resources pursuant to Section 15064.5?	θ	θ	θ	X	10, 42, 94
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	θ	θ	θ	X	10,42, 94, 111
d. Disturb any human remains, including those interred outside of formal cemeteries?	θ	θ	θ	X	2, 111, 112
V. LAND USE AND PLANNING. Would the project:					
a. Physically divide an established community?	θ	θ	θ	X	2, 11, 12, 21, 28
b. Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	θ	θ	θ	X	28, 31, 111
c. Conflict with any applicable habitat conservation plan or natural communities conservation plan?	θ	θ	θ	X	2, 94,
VI. MINERAL RESOURCES. Would the project:					
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	θ	θ	θ	X	2, 94
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	θ	θ	θ	X	2, 94
VII. NOISE. Would the project result in:					
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	θ	θ	θ	X	2, 16, 26, 94
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	θ	θ	X	θ	See Discussion

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	0	θ	X	θ	2, 16, 26, 94, 111, 112, 115
d. A substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	θ	θ	X	θ	2, 16, 26, 94, 111, 112, 115
VIII. POPULATION AND HOUSING. Would the project:					
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	θ	θ	θ	X	2,94
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	θ	θ	θ	X	2, 11, 111, 112
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	0	θ	0	X	2, 11, 111, 112
IX. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a. Parks?	θ	θ	θ	X	2, 111, 112
b. Fire protection?	θ	θ	θ	X	26, 65, 66, 103, 104
c. Schools?	θ	θ	0	X	UFC/ UBC/ SMC
d. Other public facilities?	θ	θ	0	X	2, 111, 112
e. Police protection?	θ	θ	θ	X	26, 65, 66, 103, 104

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
X. MANDATORY FINDINGS OF SIGNIFICANCE					
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	θ	θ	0	X	2, 3, 12, 80, 94, 96, 97, 109, 110
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)?	θ	θ	θ	X	2, 3, 12, 80, 83, 94, 96, 97, 110
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	θ	θ	θ	X	94, 111, 112

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
XI. GEOLOGY AND SOILS. Would the project:					
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:					
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	θ	θ	θ	X	UBC, UPC, UMC, NEC
(ii) Strong seismic ground shaking?	θ	θ	θ	X	UBC, UPC, UMC, NEC
(iii) Seismic-related ground failure, including liquefaction?	θ	θ	θ	X	UBC, UPC, UMC, NEC

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
X. MANDATORY FINDINGS OF SIGNIFICANCE					
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	θ	θ	θ	X	2, 3, 12, 80, 94, 96, 97, 109, 110
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)?	θ	θ	θ	X	2, 3, 12, 80, 83, 94, 96, 97, 110
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	θ	θ	θ	X	94, 111, 112

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
(iv) Landslides?	θ	θ	θ	X	UBC, UPC, UMC, NEC
b. Result in substantial soil erosion or the loss of topsoil?	θ	θ	θ	X	UBC, UPC, UMC, NEC
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	θ	θ	θ	X	UBC, UPC, UMC, NEC
d. Be located on expansive soil, as defined in Table 18-a-B of the Uniform Building Code (1994), creating substantial risks to life or property?	θ	θ	θ	X	UBC, UPC, UMC, NEC
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	θ	θ	θ	X	UBC, UPC, UMC, NEC

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
XII. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	0	θ	0	X	2, 20, 24, 87, 88, 89, 90, 111, 112
b. Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	θ	θ	θ	X	2, 20, 24, 25, 87, 88, 89, 111, 112
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	0	θ	0	X	2, 20, 24, 25, 87, 88, 89, 111, 112
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	θ	θ	0	X	2, 20, 24, 25, 87, 88, 89, 111, 112
e. Result in a determination by the wastewater treatment provider that services or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	θ	0	θ	X	2, 20, 24, 25, 87, 88, 89, 111, 112
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	θ	0	θ	X	2, 22, 90, 111, 112
g. Comply with federal, state, and local statues and regulations related to solid waste?	θ	θ	0	X	2, 22, 90, 111, 112

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
XIII. TRANSPORTATION/TRAFFIC. Would the project:					
a. Cause an increase in the traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	θ	θ	θ	X	2, 12, 71, 75-77, 80, 84, 111, 112
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	θ	θ	θ	X	2, 12, 71, 75-77, 80, 84, 111, 112
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	θ	θ	θ	X	2, 111, 112, 113
d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	θ	θ	θ	X	2, 12, 71, 75-77, 80, 84, 111, 112
e. Result in inadequate emergency access?	θ	θ	θ	X	8, 12, 13
f. Result in inadequate parking capacity?	θ	θ	θ	X	37, 111
g. Conflict with adopted policies or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	θ	θ	θ	X	12, 61, 85

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
XIV. HAZARDS AND HAZARDOUS MATERIALS. Would the project?					
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	θ	θ	θ	X	UFC, UBC, SVM C
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	θ	θ	θ	X	UFC, UBC, SVM C
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an exiting or proposed school?	θ	θ	θ	X	UFC, UBC, SVM C
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?	θ	θ	θ	X	UFC, UBC, SVM C
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	θ	θ	θ	X	UFC, UBC, SVM C
f. Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?	θ	θ	θ	X	UFC, UBC, SVM C
g. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	θ	θ	θ	X	UFC, UBC, SVM C

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Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
XV. RECREATION					
a. Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	θ	θ	θ	X	17, 18, 111
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	θ	θ	θ	X	17, 18, 111
XVI. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project?					94
a. Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?	θ	θ	θ	X	
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	θ	θ	0	X	94
c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use?	θ	θ	0	X	94

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source
XVII. HYDROLOGY AND WATER QUALITY. Would the project?					
a. Violate any water quality standards or waste discharge requirements?	θ	θ	θ	X	2, 24, 25, 111, 112

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	(i.) Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, will it result in an increase in any pollutant for which the water body is already impaired?	θ	θ	θ	X	2, 24, 25, 111, 112
	(ii.) Will the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?	θ	θ	θ	X	2, 24, 25, 111, 112
	Storm Water Runoff Guidance: For example, projects that could increase pollutant discharges such as mercury, copper, nickel, sediment, organophospate pesticides, PCBs, or other listed contaminants will need to address those impacts. Beneficial uses for Sunnyvale water bodies may include Cold Freshwater Habitat (e.g., Stevens Creek), Estuarine Habitat (e.g., Guadalupe Slough, north portions of Sunnyvale East and West Channels), Groundwater Recharge (e.g., Calabazas Creek and Stevens Creek), Preservation of Rare or Endangered Species (e.g., Stevens Creek, Baylands), Warm Freshwater Habitats and Wildlife Habitat (e.g., Sunnyvale East and West Channels).					
b.	Substantially degrade groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	θ	θ	0	X	2, 24, 25, 111, 112

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source

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c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? *Storm Water Runoff Guidance:* Evaluation of a project's effect on drainage patterns should refer to the final approved SCVURPPP Hydromodification Management Plan (HMP) where applicable, to assess the significance of altering existing drainage patterns and to develop any mitigation measures. The evaluation of hydromodification effects should also consider any potential for streambed or bank erosion downstream from the project. Areas that may be impacted within Sunnyvale include the storm water drainage area into Stevens Creek and the southern reach of Calabazas Creek between Homestead Road and Lawrence Expressway. Areas that drain into Sunnyvale East and West Channels and El Camino Channel have been proposed to be exempt from HMP requirements since they are artificial channels and the northern portions of Sunnyvale East and West Channels are under tidal influence.	θ	θ	θ	X	2, 24, 25, 111, 112
d.	Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	0	θ	θ	X	2, 24, 25, 111, 112
	(i.) Will the proposed project result in increased impervious surfaces and associated increased runoff?	θ	θ	θ	X	2, 24, 25, 111, 112
	(ii.) If so, does the project meet the NPDES permit's Group 1 or Group 2 criteria? *Storm Water Runoff Guidance:* If applicable, document Best Management Practices in fulfillment of Provision C.3 requirements as CEQA mitigation measures.	θ	θ	0	X	2, 24, 25, 111, 112

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c. Otherwise substantially degrade water quality?	θ	0	θ	X	2, 24, 25, 111, 112
(i.) Would the proposed project result in an increase in pollutant discharges to receiving waters? *Storm Water Runoff Guidance*: Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical storm water pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).	θ	θ	θ	X	2, 24, 25, 111, 112
(ii.) Does the project have the potential to result in a significant impact to surface water quality, marine, fresh, or wetland waters, or to groundwater quality?	θ	0	θ	X	2, 24, 25, 111, 112
(iii.) Will the project result in avoiding creation of mosquito larval sources that would subsequently require chemical treatment to protect human and animal health?	θ	θ	θ	X	2, 24, 25, 111, 112
f. Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	θ	θ	θ	X	2, 24, 25, 111, 112
g. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	θ	θ	θ	X	2, 24, 25, 111, 112
h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	0	θ	0	X	2, 24, 25, 111, 112
i. Inundation by seiche, tsunami, or mudflow?	0	θ	0	X	2, 24, 25, 111, 112

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DISCUSSION OF IMPACTS THAT ARE LESS THAN SIGNIFICANT

1. a) AESTHETICS: The City's implementation of the Citywide Design Guidelines and staff's review of final development plans, which will be submitted for final Building Permit review, will ensure that the final design of the project is consistent with the plans reviewed by the Planning Commission. The project will not degrade the visual character or quality of the site and its surroundings. As a result, this impact will be less than significant. The applicant proposed to disguise the facility as a tree adjacent to other on-site trees and screen associated equipment within an enclosed area near the base of the structure.

7. b & d) NOISE The project will introduce short-term and temporary additional sources of noise to the project area during construction. Through the City's implementation of the Municipal Code noise regulations, this impact will be lessened to a less than significant level during construction.

RF Emissions: The facility is subject to Federal Communication Commission (FCC) limits of exposure standards for human exposure. The applicant has submitted a RF (radio frequency) exposure study, conducted by TRK Engineering, indicating compliance with these Federal requirements.

Completed By: Ryan Kuchenig **Date:** 12/22/08

ENVIRONMENTAL CHECKLIST REFERENCE LIST

Note: All references are for the most recent version, as of the date the Initial Study was prepared.

City of Sunnyvale General Plan:

1. Map
2. Air Quality Sub-Element
3. Community Design Sub-Element
4. Community Participation Sub-Element
5. Cultural Arts Sub-Element
6. Executive Summary
7. Fire Services Sub-Element
8. Fiscal Sub-Element
9. Heritage Preservation Sub-Element
10. Housing & Community Revitalization Sub-Element
11. Land Use & Transportation Sub-Element
12. Law Enforcement Sub-Element
13. Legislative Management Sub-Element
14. Library Sub-Element
15. Noise Sub-Element
16. Open Space Sub-Element.
17. Recreation Sub-Element
18. Safety & Seismic Safety Sub-Element
19. Sanitary Sewer System Sub-Element
20. Socio-Economic Sub-Element
21. Solid Waste Management Sub-Element
22. Support Services Sub-Element
23. Surface Run-off Sub-Element
24. Water Resources Sub-Element

City of Sunnyvale Municipal Code:

25. Chapter 10
26. Chapter 12.60 Storm Water Management
27. Chapter 19.18. Residential Zoning Districts
28. Chapter 19.20. Commercial Zoning Districts
29. Chapter 19.22. Industrial Zoning Districts
30. Chapter 19.24. Office Zoning Districts
31. Chapter 19.26. Combining Zoning Districts
32. Chapter 19.28. Downtown Specific Plan
33. Chapter 19.42. Operating Standards
34. Chapter 19.46. Off-Street Parking & Loading
35. Chapter 19.56. Solar Access
36. Chapter 19.66. Affordable Housing
37. Chapter 19.72. Conversion of Mobile Home Parks to Other Uses
38. Chapter 19.94. Tree Preservation
39. Chapter 19.96. Heritage Preservation

Specific Plans:

40. Downtown Specific Plan (SMC 19.28)
41. El Camino Real Precise Plan
42. Lockheed Site Master Use Permit
43. Moffett Field Comprehensive Use Plan
44. 101 & Lawrence Site Specific Plan
45. Southern Pacific Corridor Plan

Environmental Impact Reports:

46. Futures Study Environmental Impact Report
47. Lockheed Site Master Use Permit Environmental Impact Report
48. Tasman Corridor LRT Environmental Impact Study (supplemental)
49. Kaiser Permanente Medical Center Replacement Center Environmental Impact Report (City of Santa Clara)
50. Downtown Development Program Environmental Impact Report
51. Caribbean-Moffett Park Environmental Impact Report
52. Southern Pacific Corridor Plan Environmental Impact Report

Maps:

53. Zoning Map
54. City of Sunnyvale Aerial Maps
55. Flood Insurance Rate Maps (FEMA)
56. Santa Clara County Assessors Parcel
57. Utility Maps (50 scale)

Lists / Inventories:

58. Sunnyvale Cultural Resources Inventory List
59. Heritage Landmark Designation List
60. Santa Clara County Heritage Resource Inventory
61. Hazardous Waste & Substances Sites List (State of California)
62. List of Known Contaminants in Sunnyvale

Legislation / Acts / Bills / Codes:

63. Subdivision Map Act

ENVIRONMENTAL CHECKLIST REFERENCE LIST

Note: All references are the most recent version as of the date the initial Study was prepared:

64. Uniform Fire Code, including amendments per SMC adoption
65. National Fire Code (National Fire Protection Association)
66. Title 19 California Administrative Code
67. California Assembly Bill 2185 / 2187 (Waters Bill)
68. California Assembly Bill 3777 (La Follette Bill)
69. Superfund Amendments & Reauthorization Act (SARA) Title III

Transportation:

70. California Department of Transportation Highway Design Manual
71. California Department of Transportation Traffic Manual
72. California Department of Transportation Standard Plan
73. California Department of Transportation Standard Specification
74. Institute of Transportation Engineers - Trip Generation
75. Institute of Transportation Engineers Transportation and Traffic Engineering Handbook
76. U.S. Dept. of Transportation Federal Highway Admin. Manual on Uniform Traffic Control Devices for Street and Highways
77. California Vehicle Code
78. Traffic Engineering Theory & Practice by L. J. Pegnataro
79. Santa Clara County Congestion Management Program and Technical Guidelines
80. Santa Clara County Transportation Agency Short Range Transit Plan
81. Santa Clara County Transportation Plan
82. Traffic Volume Studies, City of Sunnyvale Public works Department of Traffic Engineering Division
83. Santa Clara County Sub-Regional Deficiency Plan
84. Bicycle Plan

Public Works:

85. Standard Specifications and Details of the Department of Public Works
86. Storm Drain Master Plan
87. Sanitary Sewer Master Plan
88. Water Master Plan
89. Solid Waste Management Plan of Santa Clara County
90. Geotechnical Investigation Reports
91. Engineering Division Project Files
92. Subdivision and Parcel Map Files

Miscellaneous:

93. Field Inspection
94. Environmental Information Form
95. Annual Summary of Containment Excesses (BAAQMD)
96. Current Air Quality Data
97. Chemical Emergency Preparedness Program (EPA) Interim Document in 1985?)
98. Association of Bay Area Governments (ABAG) Population Projections
99. Bay Area Clean Air Plan
100. City-wide Design Guidelines
101. Industrial Design Guidelines

Building Safety:

102. Uniform Building Code, Volume 1, (Including the California Building Code, Volume 1)
103. Uniform Building Code, Volume 2, (Including the California Building Code, Volume 2)
104. Uniform Plumbing Code, (Including the California Plumbing Code)
105. Uniform Mechanical Code, (Including the California Mechanical Code)
106. National Electrical Code (Including California Electrical Code)
107. Title 16 of the Sunnyvale Municipal Code

Additional References:

108. USFWS / CA Dept. F&G Special Status Lists
109. Project Traffic Impact Analysis
110. Project Description
111. Project Development Plans
112. Santa Clara County Airport Land Use Plan
113. Federal Aviation Administration
114. Site Map

Note: All references are the most recent version as of the date the initial Study was prepared:

Cultural Resources:

Setting

The project is located on a previously developed site with an existing medical office building. The site was disturbed for previous development. There are no recorded archeological sites listed in or eligible for inclusion on either the National Register of Historic Places (NRHP) or the California Register of Historic Places (CRHP) or reported cultural resources in or near the project site. The site is not identified on the local Sunnyvale list of Heritage Resources as having architectural or historically significant structures, landmark trees, or other local landmarks.

When excavation has occurred for development, the area around Downtown Sunnyvale, located approximately ??? miles from the project site, has provided known archeological resources in the forms of Native American remains and in the form of evidence from early Sunnyvale town history.

Thresholds of Significance

For purposes of this project, a cultural resource impact is considered significant if the project will:

- Cause a substantial adverse change in the significance of a historic resource as defined in section 15064.5 of the CEQA Guidelines;
- Cause damage to an important archeological resource as defined in section 15064.5 of the CEQA Guidelines;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those interred outside of formal cemeteries.

Impacts

Cultural Resources 1: Development of the project site could result in a significant impact to buried cultural resources which could be present on the site. As discussed above, there is a potential for cultural resources, including Muwekma Ohlone Indian ancestral resources, to be present at the project site. Should any archeological resources be found during construction, their disturbance would be a significant impact.
Significant Impact

Mitigation and Avoidance Measures

(have Joey get section from EIR)

at&t

CN3538-B
RESURRECTION PARISH CHURCH
1399 HOLLENBECK AVENUE
SUNNYVALE, CALIFORNIA 94087

SPECIAL INSPECTIONS

CONSULTANT TEAM

CLIENTS REPRESENTATIVE

ERICSSON INC.

CONSTRUCTION MANAGER

SITE ACQUISITION

ARCHITECT:

LAND SURVEYOR:

DEVELOPMENT SUMMARY

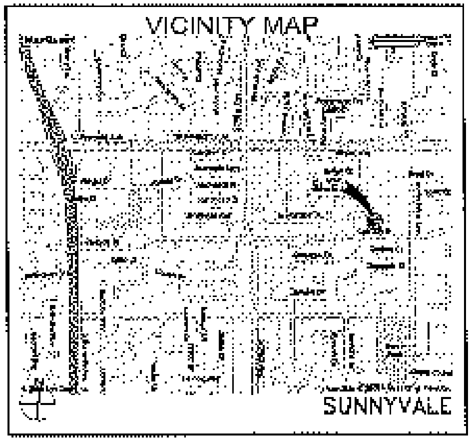
SHEET INDEX

APPLICABLE CODES

PROJECT DESCRIPTION

ACCESSIBILITY DISCLAIMER

VICINITY MAP



LEGAL DESCRIPTION

SCALE

JRA

PROPRIETARY INFORMATION

PREPARED FOR

at&t

APPROVALS

PROJECT NAME

RESURRECTION PARISH CHURCH

CN3538-B

SHEET TITLE

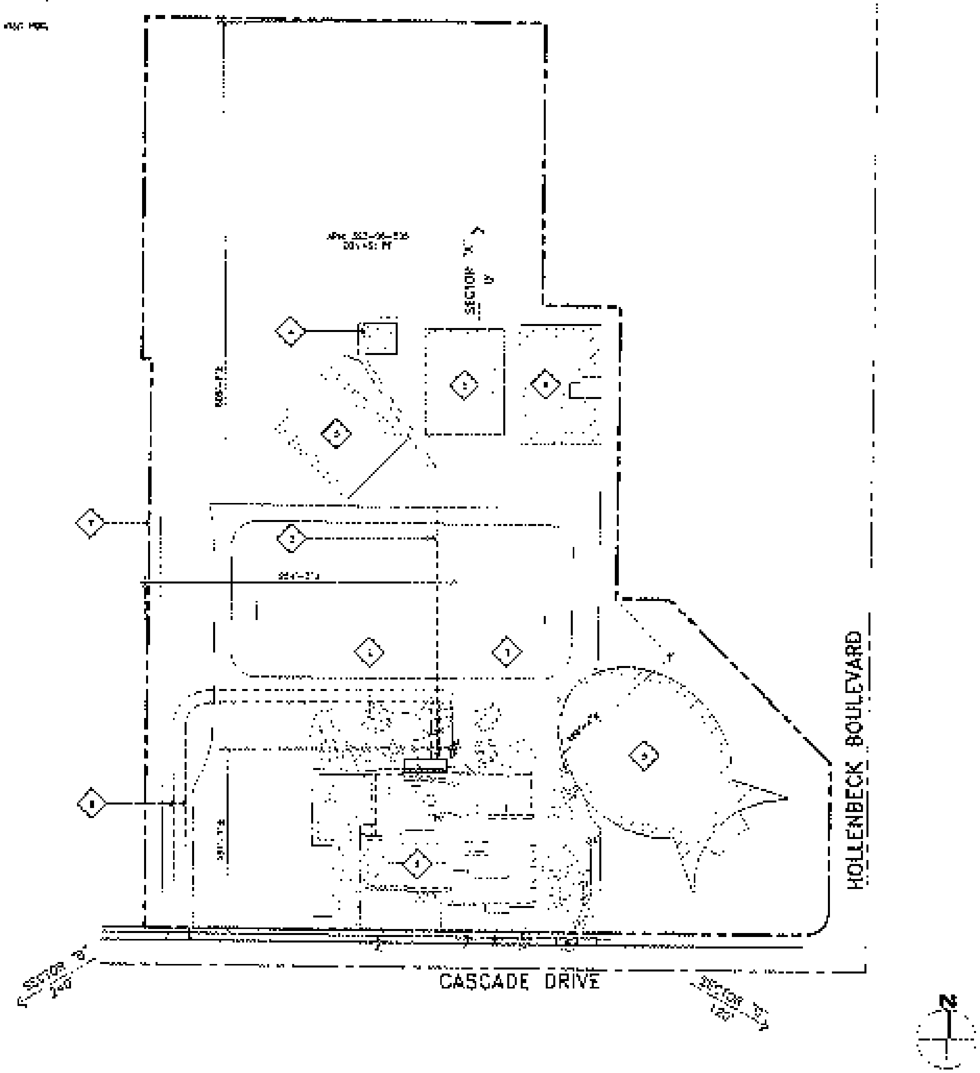
TITLE SHEET

T-1

ATTACHMENT D

Page 1 of 3

SITE PLAN KEYNOTES



SITE PLAN

SCALE: 1"=50'

3

ANTENNA COAXIAL CABLE SCHEDULE

2

GENERAL ANTENNA & CABLE NOTES

1

JRA

Jeffrey Barns & Associates, Inc.

PROPRIETARY INFORMATION

PREPARED FOR

at&t

APPROVALS

PROJECT NAME

RESURRECTION PARISH CHURCH

PROJECT NUMBER

CN3538-B

DRAWING DATES

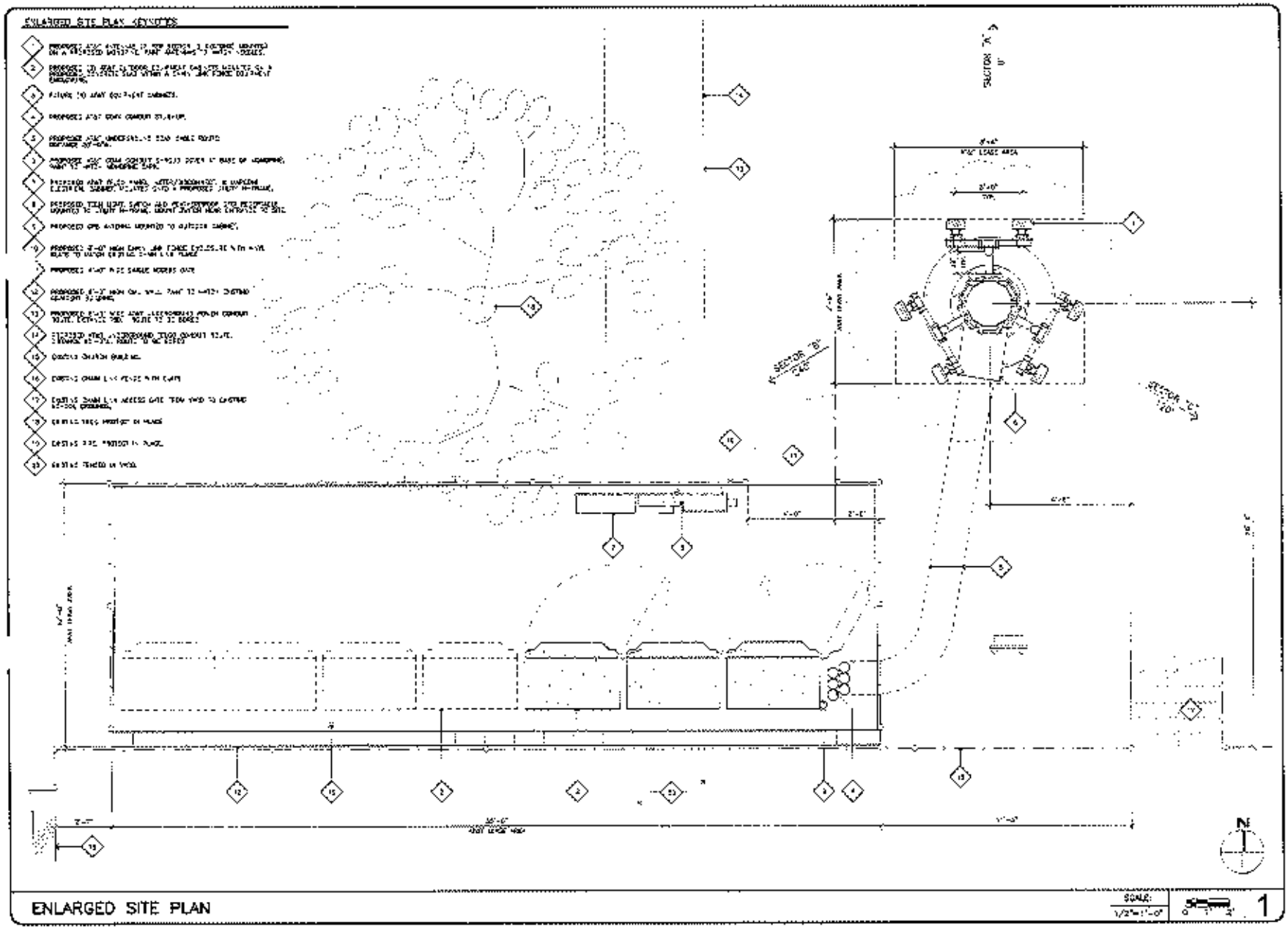
SHEET TITLE

SITE PLAN

A-0

ATTACHMENT D

Page 2 of 5



JRA
Jeffrey Raso & Associates, Inc.

PROPRIETARY INFORMATION

PREPARED FOR
at&t

APPROVALS

PROJECT NAME
RESURRECTION PARISH CHURCH

PROJECT NUMBER
CN353B-B

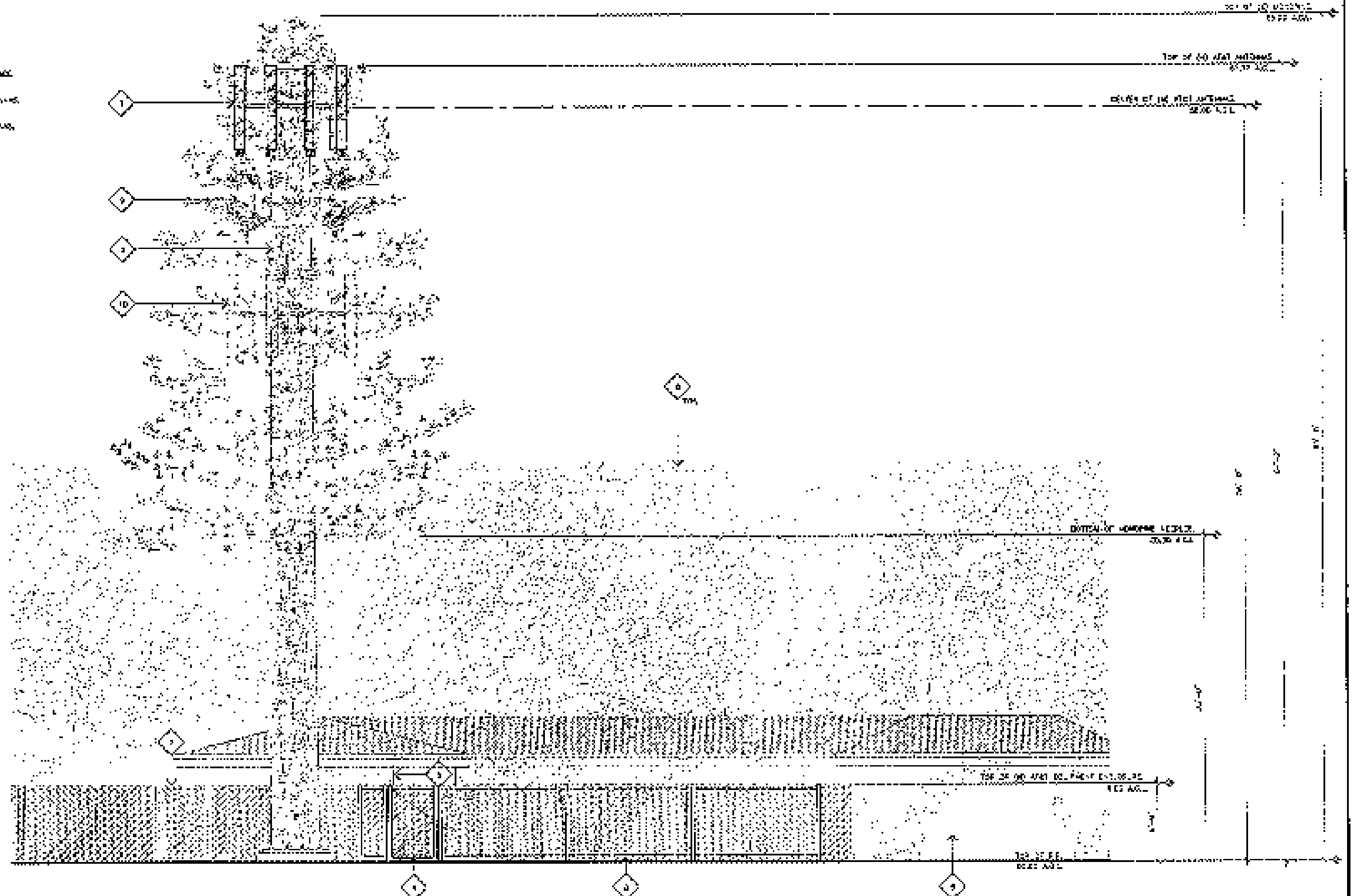
SHEET TITLE
ENLARGED SITE PLAN

A-1

ATTACHMENT 1

ELEVATION KEYNOTES

1. [illegible]
2. PROPOSED MONOPINE WITH FULL BARK CLADDING.
3. [illegible]
4. [illegible]
5. PROPOSED GPS ANTENNA.
6. EXISTING CHURCH BUILDING.
7. EXISTING YARD ACCESS GATE.
8. EXISTING TREE, PROTECT IN PLACE.
9. FUTURE AT&T MICROWAVE ANTENNAS.
10. FUTURE OTHER CARRIER ANTENNAS.



NORTH ELEVATION

SCALE:		
1/4"=1'-0"	0 2' 4'	1

JRA
Jeffrey Rome & Associates, Inc.

PROPRIETARY INFORMATION

PREPARED FOR

at&t

APPROVALS

PROJECT NAME

RESURRECTION PARISH CHURCH

PROJECT NUMBER

CNS858-B

DRAWING DATES

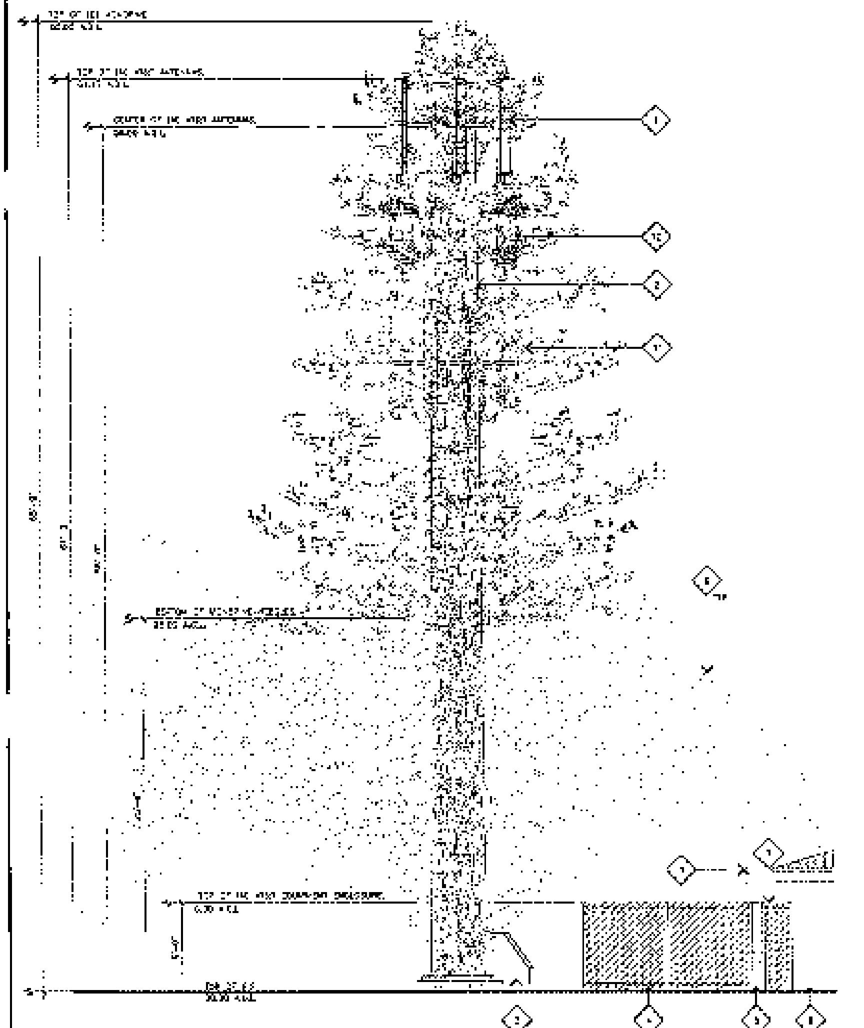
SHEET TITLE

NORTH ELEVATION

A-2

ATTACHMENT D

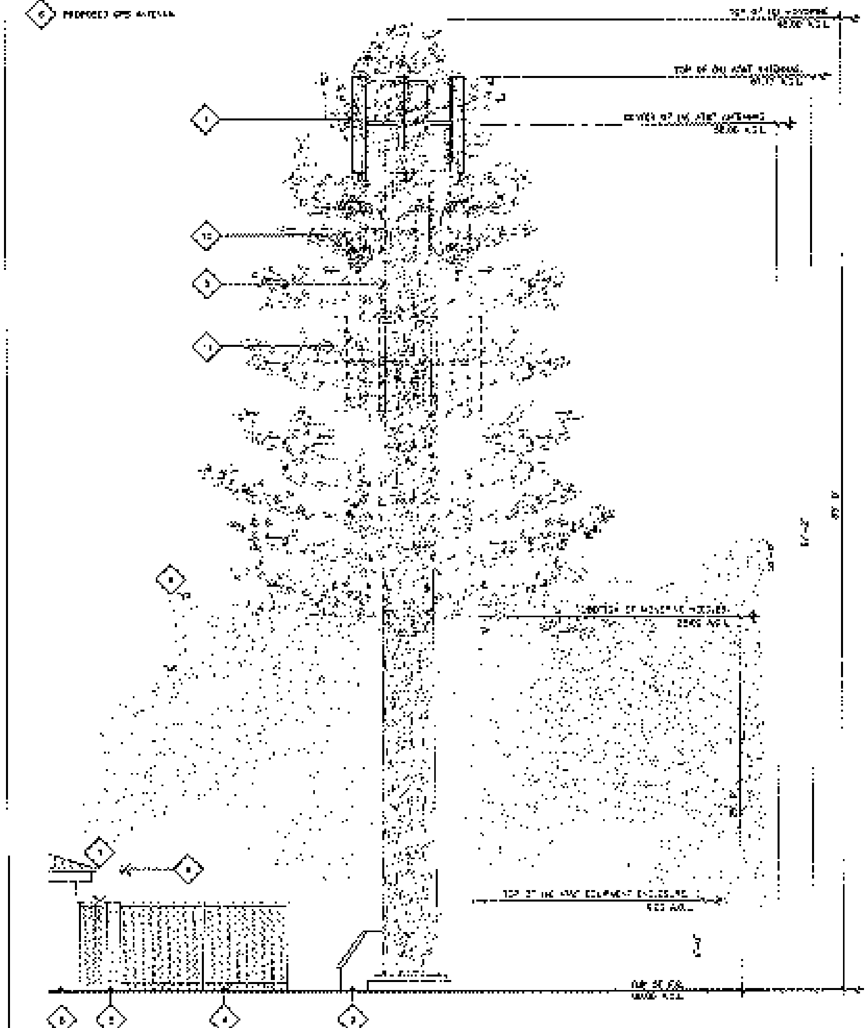
ELEVATION KEYNOTES



WEST ELEVATION

SCALE: 1/4"=1'-0" | 0 2' 4' | 2

ELEVATION KEYNOTES



EAST ELEVATION

SCALE: 1/4"=1'-0" | 0 2' 4' | 1

JRA

PROPRIETARY INFORMATION

at&t

APPROVALS

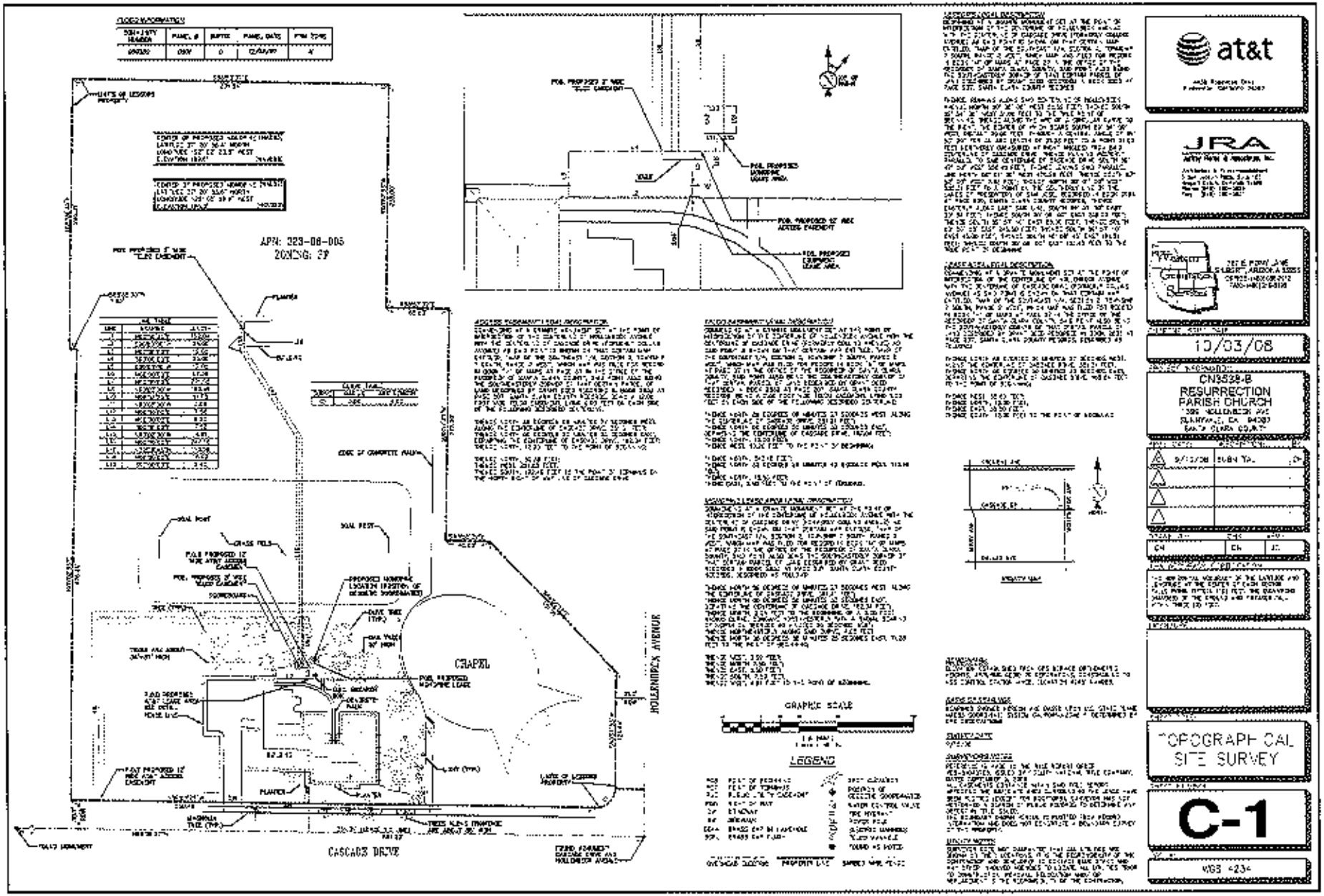
RESURRECTION PARISH CHURCH

CN5538-B

EAST & WEST ELEVATIONS

A-3

ATTACHMENT



ATTACHMENT 2
PAGE 3

ATTACHMENT E
Page 1 of 19

TRK ENGINEERING

FEDERAL COMMUNICATIONS COMMISSION (FCC) COMPLIANCE STUDY ON RADIO FREQUENCY ELECTROMAGNETIC FIELDS EXPOSURE

Prepared for:

at&t

CN3538-B
RESURRECTION PARISH CHURCH
1399 HOLLENBECK AVENUE
SUNNYVALE, CA
94087

OCTOBER 08/08, REV. 0

SITE DESCRIPTION:

Carrier:	AT&T
Address:	1399 Hollenbeck Avenue, Sunnyvale, CA 94087
Type of Service:	GSM and UMTS (*1900 MHz and 850 MHz Broadband PCS*)
Sectors:	3 (0°, 240°, 120°)
Antenna Type:	Kathrein 742 265
Number of Antennas:	6 (2 per sector)
Maximum Power:	500 W *(Maximum ERP per technology per sector)*
Antenna Height:	58'± *(Radiation center AGL)*

Table 1. AT&T RF summary

AT&T is proposing to build a wireless telecommunication facility inside the church property (Figure 1) to deploy new GSM and UMTS services. Six directional antennas will be installed on a 65' monopine. Seven (3 proposed and 4 future) outdoor equipment cabinets will be installed near the proposed monopine. The compound will be enclosed with 6' high chain link fence and gates. Access to the facility is restricted to authorized personnel.

Figure 1. Area surrounding facility

There are also two existing wireless telecommunication facilities near the proposed AT&T facility. T-Mobile has stealth directional antennas installed on the rooftop of the adjacent church building which is approximately 150' east of the proposed AT&T facility. Sprint PCS has stealth directional antennas installed on the rooftop of the school building, which is approximately 480' north from the proposed monopine (Figure 1). The RF summary for the existing facilities is shown in the following Tables.

Carrier:	Sprint PCS
Type of Service:	1900 MHz CDMA *(Broadband PCS)*
Antenna Quantity:	3 (1 per sector)
Antenna Type:	EMS MTRR75-17-xxDPL2 *(typical)*
Maximum Power:	500 W ERP per sector *(typical)*
Antenna Height:	28'± *(Radiation center AGL)*

Table 2. Sprint PCS RF summary

Carrier:	T-Mobile
Type of Service:	1900MHz GSM *(Broadband PCS)*
Antenna Quantity:	3 (1 per sector)
Antenna Type:	Andrew CSH-6565A-R2 (typical)
Maximum Power:	500 W ERP *(Maximum ERP per technology per sector, typical)*
Antenna Height:	28'± *(Radiation center AGL)*

Table 3. T-Mobile RF summary

PROTOCOL:

This study, and the calculations performed therein, is based on OET Bulletin 65[1] which adopts ANSI C95.1-1992 and NCRP standards. In particular, equation 10 from section 2 of the guideline is used as a model (in conjunction with known antenna radiation patterns) for calculating the power density at different points of interest. This information will be used to judge the RF exposure level incident upon the general population, and any employee present in the area. It should be noted that ground reflection of RF waves has been taken into account.

FCC'S MAXIMUM PERMISSIBLE EXPOSURE (MPE) LIMIT:

In order to evaluate the RF exposure level, the power densities at different locations of interest have been examined. Equation 10 from Bulletin 65 is reproduced here as equation 1:

$$S = \frac{33.4 F^2 ERP}{R^2} \qquad (1)$$

Where: S = *Power density [$\mu W/cm^2$]*
ERP = *Effective radiated power [W]*
R = *Distance [m]*
F = *Relative field factor (relative numeric gain)*

[1] Cleveland, Robert F, et al. Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields. OET Bulletin 65, Edition 97-01, August 1997.

Scenario 1: *Maximum Exposure near facility*

The RF exposure level of a six-foot tall person standing close to the facilities is evaluated. For the worst-case scenario, we assume that the antennas of all carriers are transmitting the maximum number of channels at the same time, with each channel at its maximum power level. In addition, the azimuths of the antennas of all carriers are assumed to be in the direction of the studied location. Please refer to scenario 1 in appendix A for the complete geometry and analysis. The highest exposure location is found to be approximately 295' from the proposed monopine. The calculations of maximum power density are summarized in Table 4.

Service	Max. ERP	F^2	R (m)	S (μW/cm²)	MPE %
AT&T (1900 UMTS)	500	-15 dB (0.0316)	91.3	0.06336	0.00634
AT&T (850 UMTS)	500	-2 dB (0.6310)	91.3	1.26415	0.22574
AT&T (1900 GSM)	500	-15 dB (0.0316)	91.3	0.06336	0.00634
AT&T (850 GSM)	500	-2 dB (0.6310)	91.3	1.26415	0.22574
T-Mobile	500	0 dB (1.0000)	85.6	2.27759	0.22776
Sprint PCS	500	-10 dB (0.1000)	56.8	0.51763	0.05176
Total					0.74368

Table 4. Worst-case predicted power density values for scenario 1.

The Maximum Permissible Exposure (MPE) limit for 1900 MHz facilities[2] for general population/uncontrolled exposure is 1000 μW/cm², and 566 μW/cm² for 850 MHz facility. At this location, the cumulative power density from AT&T and the existing facilities is calculated to be 0.74% of the MPE limit.

Scenario 2: *Maximum Exposure on nearby buildings*

The RF exposure levels on the rooftop of nearby buildings are evaluated. Again, we assume all antennas are transmitting with maximum power level at the same time, and antenna azimuths are in the direction of studied location. Please refer to scenario 2 in appendix A for the complete geometry and analysis. The highest exposure location is found to be on the rooftop of the school. The calculations for the maximum possible power density are shown in Table 5.

Service	Max. ERP	F^2	R (m)	S (μW/cm²)	MPE %
AT&T (1900 UMTS)	500	-1 dB (0.7943)	137.6	0.70076	0.07008
AT&T (850 UMTS)	500	0 dB (1.0000)	137.6	0.88220	0.15754
AT&T (1900 GSM)	500	-1 dB (0.7943)	137.6	0.70076	0.07008
AT&T (850 GSM)	500	0 dB (1.0000)	137.6	0.88220	0.15754
T-Mobile	500	0 dB (1.0000)	132.6	0.94940	0.09494
Sprint PCS	500	-12 dB (0.0631)	6.2	27.25027	2.72503
Total					3.27519

Table 5. Worst-case predicted power density values for scenario 2.

The maximum cumulative power density for the AT&T antennas and the existing antennas is calculated to be 3.28% of the MPE limit. There are no locations in the surrounding areas and buildings near the compound that will have RF exposure levels close to the MPE limit.

[2] Ibid., page 67.

Conclusion:

Under "worst-case" conditions, the calculations shown above predict that the maximum possible RF exposure is 3.28% of the MPE limit. There will be less RF exposure on the ground level or nearby buildings as a person moves away from the facilities. Therefore, the proposed AT&T facility in the neighborhood of the existing two wireless communication facilities will comply with the general population/uncontrolled limit.

FCC COMPLIANCE:

Only trained persons will be permitted to access the facility and the antennas. They will be made fully aware of the potential for RF exposure and can choose to exercise control over their exposure that is within the occupational/controlled limits which is 5 times higher than the uncontrolled limits.

The general population/uncontrolled exposure near the facility, including persons on the ground level, in nearby open areas, and inside or on existing nearby buildings will have RF exposure much lower than the "worst-case" scenario, which is only a small percentage of the MPE limit.

REGISTERED PROFESSIONAL ENGINEER
SEI YUEN SYLVAN WONG
16850
EXP. 12/31/08
ELECTRICAL
STATE OF CALIFORNIA

October, 8, 2008

Sei Yuen Sylvan Wong, PE
California PE Reg. No. E 16850

ATTACHMENT E
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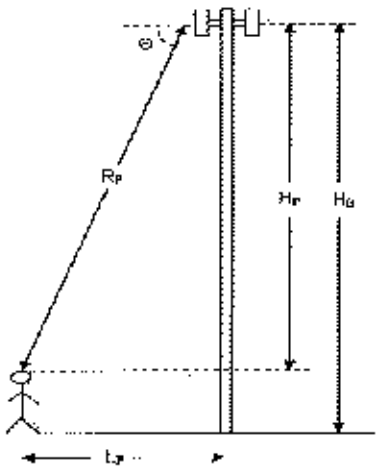
Appendix A

FCC'S MAXIMUM PERMISSIBLE EXPOSURE (MPE) LIMIT:



Equation 10 from Bulletin 65 is reproduced here as equation 1:

$$S = \frac{33.4 F^2 ERP}{R^2}$$

Where:

S = Power density [$\mu W/cm^2$]
ERP = Effective radiated power [W]
R = Distance [m]
F = Relative field factor (relative numeric gain)

Scenario 1: Standing Near The Facility

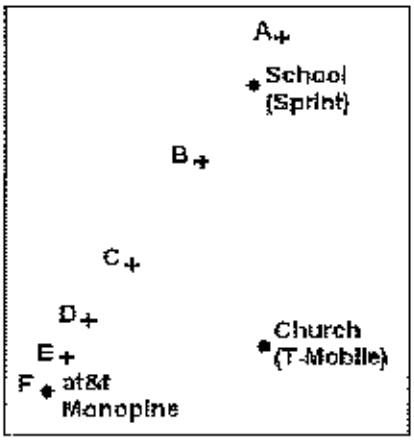
The highest exposure location at ground from the antenna

$R_P = H_P \times \sin^{-1}(\Theta)$

$\Theta = \arctan(H_P/L_P)$

Relative Field Factor at Θ

$F^2 = 10^{\frac{F^2}{10}}$ (in term of power density)



Considered person's height for RF exposure level evaluating (H_M)= 6 ft

Distance between monopine and T-Mobile antenna = 150 ft

Distance between T-Mobile and Sprint antenna = 455 ft

Distance between monopine and Sprint antennal = 480 ft

Location A

Exposure location at ground from the monopine L_{P1} = 594 ft at Θ_1= 5 °

Exposure location at ground from T-Mobile antenna L_{P2} = 574 ft

Exposure location at ground from Sprint antenna L_{P3} = 114 ft

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_P(m)	S (μW/cm2)	MPE%
at&t - 1900 UMTS	58.00	52.00	500.0	Θ_1 = 5 °	-2 dB (0.6310)	181.9	0.31846	0.03185
at&t - 850 UMTS	58.00	52.00	500.0	Θ_1 = 5 °	0 dB (1.0000)	181.9	0.50472	0.09013
at&t - 1900 GSM	58.00	52.00	500.0	Θ_1 = 5 °	-2 dB (0.6310)	181.9	0.31846	0.03185
at&t - 850 GSM	58.00	52.00	500.0	Θ_1 = 5 °	0 dB (1.0000)	181.9	0.50472	0.09013
T- Mobile	28.00	22.00	500.0	Θ_2 = 2 °	0 dB (1.0000)	175.1	0.54451	0.05445
Sprint	28.00	22.00	500.0	Θ_3 = 11 °	-12 dB (0.0631)	35.4	0.84098	0.08410
						Total		0.38249

Location B

Exposure location at ground from the monopine L_{P1} = 295 ft at Θ_1= 10 °

Exposure location at ground from T-Mobile antenna L_{P2} = 280 ft

Exposure location at ground from Sprint antenna L_{P3} = 185 ft

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_P(m)	S (μW/cm2)	MPE%
at&t - 1900 UMTS	58.00	52.00	500.0	Θ_1 = 10 °	-15 dB (0.0316)	91.3	0.06336	0.00634
at&t - 850 UMTS	58.00	52.00	500.0	Θ_1 = 10 °	-2 dB (0.6310)	91.3	1.26415	0.22574
at&t - 1900 GSM	58.00	52.00	500.0	Θ_1 = 10 °	-15 dB (0.0316)	91.3	0.06336	0.00634
at&t - 850 GSM	58.00	52.00	500.0	Θ_1 = 10 °	-2 dB (0.6310)	91.3	1.26415	0.22574
T- Mobile	28.00	22.00	500.0	Θ_2 = 4 °	0 dB (1.0000)	85.6	2.27759	0.22776
Sprint	28.00	22.00	500.0	Θ_3 = 7 °	-10 dB (0.1000)	56.8	0.51763	0.05176
						Total		0.74368

ATTACHMENT E
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Location C

Exposure location at ground from the monopine L_{P1} = 143 ft at Θ_1= 20 °

Exposure location at ground from T-Mobile antenna L_{P2} = 180 ft

Exposure location at ground from Sprint antenna L_{P3} = 337 ft

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_p(m)	S (µW/cm2)	MPE%
at&t - 1900 UMTS	58.00	52.00	500.0	Θ_1 = 20 °	-20 dB (0.0100)	46.4	0.07773	0.00777
at&t - 850 UMTS	58.00	52.00	500.0	Θ_1 = 20 °	-11 dB (0.0794)	46.4	0.61739	0.11025
at&t - 1900 GSM	58.00	52.00	500.0	Θ_1 = 20 °	-20 dB (0.0100)	46.4	0.07773	0.00777
at&t - 850 GSM	58.00	52.00	500.0	Θ_1 = 20 °	-11 dB (0.0794)	46.4	0.61739	0.11025
T- Mobile	28.00	22.00	500.0	Θ_2 = 7 °	-5 dB (0.3162)	55.3	1.72774	0.17277
Sprint	28.00	22.00	500.0	Θ_3 = 4 °	-3 dB (0.5012)	103.0	0.78890	0.07889
						Total		0.48771

Location D

Exposure location at ground from the monopine L_{P1} = 52 ft at Θ_1= 45 °

Exposure location at ground from T-Mobile antenna L_{P2} = 165 ft

Exposure location at ground from Sprint antenna L_{P3} = 428 ft

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_p(m)	S (µW/cm2)	MPE%
at&t - 1900 UMTS	58.00	52.00	500.0	Θ_1 = 45 °	-18 dB (0.0158)	22.4	0.52654	0.05265
at&t - 850 UMTS	58.00	52.00	500.0	Θ_1 = 45 °	-20 dB (0.0100)	22.4	0.33222	0.05933
at&t - 1900 GSM	58.00	52.00	500.0	Θ_1 = 45 °	-18 dB (0.0158)	22.4	0.52654	0.05265
at&t - 850 GSM	58.00	52.00	500.0	Θ_1 = 45 °	-20 dB (0.0100)	22.4	0.33222	0.05933
T- Mobile	28.00	22.00	500.0	Θ_2 = 8 °	-8 dB (0.1585)	50.8	1.02765	0.10276
Sprint	28.00	22.00	500.0	Θ_3 = 3 °	0 dB (1.0000)	130.7	0.97821	0.09782
						Total		0.42454

Location E

Exposure location at ground from the monopine L_{P1} = 13.9 ft at Θ_1= 75 °

Exposure location at ground from T-Mobile antenna L_{P2} = 170 ft

Exposure location at ground from Sprint antenna L_{P3} = 466 ft

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_p(m)	S (µW/cm2)	MPE%
at&t - 1900 UMTS	58.00	52.00	500.0	Θ_1 = 75 °	-18 dB (0.0158)	16.4	0.98253	0.09825
at&t - 850 UMTS	58.00	52.00	500.0	Θ_1 = 75 °	-26 dB (0.0025)	16.4	0.15572	0.02781
at&t - 1900 GSM	58.00	52.00	500.0	Θ_1 = 75 °	-18 dB (0.0158)	16.4	0.98253	0.09825
at&t - 850 GSM	58.00	52.00	500.0	Θ_1 = 75 °	-26 dB (0.0025)	16.4	0.15572	0.02781
T- Mobile	28.00	22.00	500.0	Θ_2 = 7 °	-5 dB (0.3162)	52.3	1.93354	0.19335
Sprint	28.00	22.00	500.0	Θ_3 = 3 °	0 dB (1.0000)	142.3	0.82528	0.08253
						Total		0.52800

Location F

Exposure location at ground from the monopine L_{P1} = 0 ft at Θ_1= 90 °

Exposure location at ground from T-Mobile antenna L_{P2} = 170 ft

Exposure location at ground from Sprint antenna L_{P3} = 480 ft

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_p(m)	S (µW/cm2)	MPE%
at&t - 1900 UMTS	58.00	52.00	500.0	Θ_1 = 90 °	-20 dB (0.0100)	15.9	0.66444	0.06644
at&t - 850 UMTS	58.00	52.00	500.0	Θ_1 = 90 °	-30 dB (0.0010)	15.9	0.06644	0.01187
at&t - 1900 GSM	58.00	52.00	500.0	Θ_1 = 90 °	-20 dB (0.0100)	15.9	0.66444	0.06644
at&t - 850 GSM	58.00	52.00	500.0	Θ_1 = 90 °	-30 dB (0.0010)	15.9	0.06644	0.01187
T- Mobile	28.00	22.00	500.0	Θ_2 = 7 °	-5 dB (0.3162)	52.3	1.93354	0.19335
Sprint	28.00	22.00	500.0	Θ_3 = 3 °	0 dB (1.0000)	146.5	0.77816	0.07782
						Total		0.42779

ATTACHMENT E
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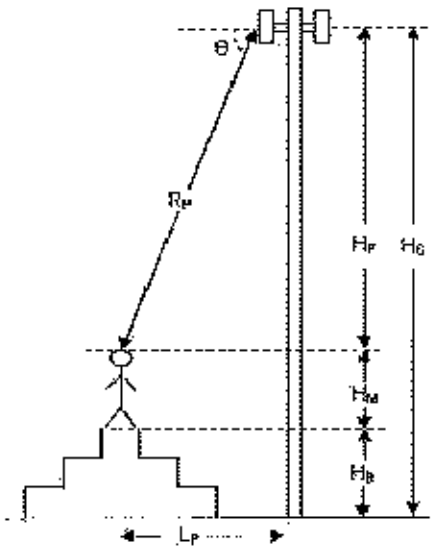
Scenario 2: Nearby Rooftops



The nearest residential building on the South

H_B= 15 ft (65 ft from the monopine, 150 ft from the church and 555 ft from the school)

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_P(m)	S (μW/cm2)	MPE%
at&t - 1900 UMTS	58.00	37.00	500.0	Θ_1 = 30 °	-20 dB (0.0100)	22.8	0.32117	0.03212
at&t - 850 UMTS	58.00	37.00	500.0	Θ_1 = 30 °	-16 dB (0.0251)	22.8	0.80676	0.14406
at&t - 1900 GSM	58.00	37.00	500.0	Θ_1 = 30 °	-20 dB (0.0100)	22.8	0.32117	0.03212
at&t - 850 GSM	58.00	37.00	500.0	Θ_1 = 30 °	-16 dB (0.0251)	22.8	0.80676	0.14406
T- Mobile	28.00	7.00	500.0	Θ_2 = 3 °	0 dB (1.0000)	45.8	7.96777	0.79678
Sprint	28.00	7.00	500.0	Θ_3 = 1 °	0 dB (1.0000)	169.2	0.58319	0.05832
						Total		1.20746

Roof top of the church

H_B= 18 ft (130 ft from the monopine, 20 ft from the church and 455 ft from the school)

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_P(m)	S (μW/cm2)	MPE%
at&t - 1900 UMTS	58.00	34.00	500.0	Θ_1 = 15 °	-17 dB (0.0200)	41.0	0.19854	0.01985
at&t - 850 UMTS	58.00	34.00	500.0	Θ_1 = 15 °	-10 dB (0.1000)	41.0	0.99504	0.17769
at&t - 1900 GSM	58.00	34.00	500.0	Θ_1 = 15 °	-17 dB (0.0200)	41.0	0.19854	0.01985
at&t - 850 GSM	58.00	34.00	500.0	Θ_1 = 15 °	-10 dB (0.1000)	41.0	0.99504	0.17769
T- Mobile	28.00	4.00	500.0	Θ_2 = 11 °	-15 dB (0.0316)	6.2	13.65749	1.36575
Sprint	28.00	4.00	500.0	Θ_3 = 1 °	0 dB (1.0000)	138.7	0.86778	0.08678
						Total		1.84761

The nearest building on the North

H_B= 15 ft (250 ft from the monopine, 300 ft from the church and 250 ft from the school)

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_P(m)	S (μW/cm2)	MPE%
at&t - 1900 UMTS	58.00	37.00	500.0	Θ_1 = 8 °	-8 dB (0.1585)	77.0	0.44583	0.04458
at&t - 850 UMTS	58.00	37.00	500.0	Θ_1 = 8 °	-1 dB (0.7943)	77.0	2.23447	0.39901
at&t - 1900 GSM	58.00	37.00	500.0	Θ_1 = 8 °	-8 dB (0.1585)	77.0	0.44583	0.04458
at&t - 850 GSM	58.00	37.00	500.0	Θ_1 = 8 °	-1 dB (0.7943)	77.0	2.23447	0.39901
T- Mobile	28.00	7.00	500.0	Θ_2 = 1 °	0 dB (1.0000)	91.5	1.99519	0.19952
Sprint	28.00	7.00	500.0	Θ_3 = 2 °	0 dB (1.0000)	76.2	2.87239	0.28724
						Total		1.37395

Roof top of the school
H_R= 18 ft (450 ft from the monopine, 435 ft from the church and 20 ft from the school)

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_P(m)	S (μW/cm2)	MPE%
at&t - 1900 UMTS	58.00	34.00	500.0	Θ_5 = 4 °	-1 dB (0.7943)	137.6	0.70076	0.07008
at&t - 850 UMTS	58.00	34.00	500.0	Θ_4 = 4 °	0 dB (1.0000)	137.6	0.88220	0.15754
at&t - 1900 GSM	58.00	34.00	500.0	Θ_5 = 4 °	-1 dB (0.7943)	137.6	0.70076	0.07008
at&t - 850 GSM	58.00	34.00	500.0	Θ_4 = 4 °	0 dB (1.0000)	137.6	0.88220	0.15754
T- Mobile	28.00	4.00	500.0	Θ_2 = 1 °	0 dB (1.0000)	132.6	0.94940	0.09494
Sprint	28.00	4.00	500.0	Θ_3 = 11 °	-12 dB (0.0631)	6.2	27.25027	2.72503
						Total		3.27519

The nearest residential building on the West
H_R= 15 ft (270 ft from the monopine, 450 ft from the church and 670 ft from the school)

Service Provider	Height H_G, ft	Height H_P, ft	Max. ERP	Angle Θ	F^2	R_P(m)	S (μW/cm2)	MPE%
at&t - 1900 UMTS	58.00	37.00	500.0	Θ_1 = 8 °	-8 dB (0.1585)	83.1	0.38340	0.03834
at&t - 850 UMTS	58.00	37.00	500.0	Θ_1 = 8 °	-1 dB (0.7943)	83.1	1.92157	0.34314
at&t - 1900 GSM	58.00	37.00	500.0	Θ_1 = 8 °	-8 dB (0.1585)	83.1	0.38340	0.03834
at&t - 850 GSM	58.00	37.00	500.0	Θ_1 = 8 °	-1 dB (0.7943)	83.1	1.92157	0.34314
T- Mobile	28.00	7.00	500.0	Θ_2 = 1 °	0 dB (1.0000)	137.2	0.88702	0.08870
Sprint	28.00	7.00	500.0	Θ_3 = 1 °	0 dB (1.0000)	204.3	0.40019	0.04002
						Total		0.89168

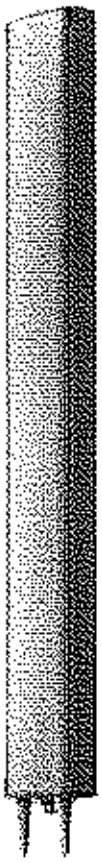
KATHREIN
SCALA DIVISION

742 265

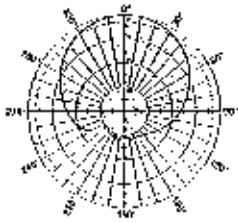
65° Dualband Directional Antenna

Kathrein's dual band antennas are ready for 3G applications, covering all existing wireless bands as well as all spectrum under consideration for future systems, AMPS, PCS and 3G/UMTS. These cross-polarized antennas offer diversity operation in the same space as a conventional 800 MHz antenna, and are mountable on our compact sector brackets.

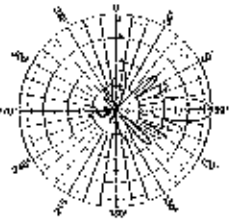
- Wide band operation.
- Exceptional intermodulation characteristics.
- Remote control ready.
- Various gain, beamwidth and downtilt ranges.
- AISG compatible.
- High strength pultruded fiberglass radome.



824–960 MHz

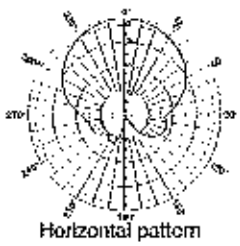


Horizontal pattern
±45°- polarization

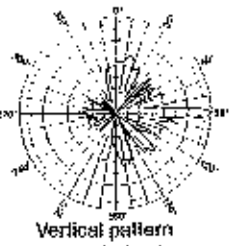


Vertical pattern
±45°- polarization
0.5°–9.5° electrical downtilt

1710–2180 MHz



Horizontal pattern
±45°- polarization



Vertical pattern
±45°- polarization
0°–6° electrical downtilt

General specifications:

Frequency range	824–960 MHz 1710–2180 MHz
Impedance	50 ohms
VSWR	<1.5:1
Intermodulation (2x20w)	IM3: < -150 dBc
Polarization	+45° and -45°
Connector	4 x 7/16 DIN female
Isolation intrasystem intersystem	>30 dB >50 dB (824–960 // 1710–2180 MHz)
Weight	50.7 lb (23 kg)
Dimensions	75.4 x 10.3 x 5.5 inches (1916 x 262 x 139 mm)
Equivalent flat plate area	8.16 ft² (0.572 m²)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	87.2 x 11.9 x 7.6 inches (2215 x 302 x 192 mm)
Shipping weight	62 lb (28 kg)
Mounting	Fixed mount options are available for 2 to 4.6 inch (50 to 115 mm) OD masts.

See reverse for order information.

Specifications:	**824–894 MHz**	**880–960 MHz**	**1710–1880 MHz**	**1850–1990 MHz**	**1920–2180 MHz**
Gain	15.5 dBi	16 dBi	17.8 dBi	18.2 dBi	18.3 dBi
Front-to-back ratio	>27 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)	>25 dB (co-polar)
Maximum input power per input total power	500 watts (at 50°C) 1000 watts (at 50°C)	500 watts (at 50°C) 1000 watts (at 50°C)	250 watts (at 50°C)	250 watts (at 50°C) 500 watts (at 50°C)	250 watts (at 50°C)
+45° and -45° polarization horizontal beamwidth	68° (half-power)	65° (half-power)	66° (half-power)	65° (half-power)	63° (half-power)
+45° and -45° polarization vertical beamwidth	10.5° (half-power)	10° (half-power)	5.2° (half-power)	5° (half-power)	4.7° (half-power)
Electrical downtilt continuously adjustable	0.5°–9.5°	0.5°–9.5°	0°–6°	0°- 6°	0°- 6°
Sidelobe suppression for first sidelobe above horizon	0° 5° 10° T 16 15 15 dB	0° 5° 10° T 18 18 16 dB	0° 3° 6° T 14 15 17 dB	0° 3° 6° T 18 17 17 dB	0° 3° 6° T 18 17 17 dB
Cross polar ratio Main direction 0° Sector ±60°	20 dB (typical) >10 dB	20 dB (typical) >10 dB	16 dB (typical) >10 dB	18 dB (typical) >10 dB	18 dB (typical) >10 dB

*Mechanical design is based on environmental conditions as stipulated in FIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

10634-I
936.2888/c

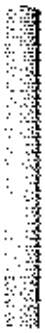
Kathrein Inc., Scala Division Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-3991
Email: communications@kathrein.com Internet: www.kathrein-scala.com

Product Specifications

ANDREW.
A CommScope Company

CSH-6516A-VT

DualPol® Micro AcCELLerator™ Tri-sector Antenna, 1710–2180 MHz, 65° horizontal beamwidth, RET compatible variable electrical tilt



- Three DualPol® antennas under one radome
- Each antenna allows for independent beam tilting to optimize each sector
- Rugged, reliable design with excellent passive intermodulation suppression
- Fully compatible with Andrew remote electrical tilt system

CHARACTERISTICS

General Specifications

Antenna Type	DualPol® tri-sector
Brand	DualPol® | Micro AcCELLerator™ | Teletilt®
Operating Frequency Band	1710 – 2180 MHz

Electrical Specifications

Frequency Band, MHz	1710–1880	1850–1990	1920–2180
Beamwidth, Horizontal, degrees	65	63	61
Gain, dBd	15.0	15.3	15.5
Gain, dBi	17.1	17.4	17.6
Beamwidth, Vertical, degrees	7.5	7.0	6.7
Beam Tilt, degrees	2–10	2–10	2–10
Upper Sidelobe Suppression (USLS), typical, dB	16	16	16
Front-to-Back Ratio at 180°, dB	28	28	26
Isolation, dB	30	30	30
VSWR	1.5:1	1.5:1	1.5:1
3rd Order IMD at 2 x 20 W, dBc	-150	-150	-150
Input Power, maximum, watts	200	200	200
Polarization	±45°	±45°	±45°
Impedance	50	50	50
Lightning Protection	dc Ground	dc Ground	dc Ground

From North America, toll free
Telephone: 1-800-255-1479
Fax: 1-800-349-5444

Outside North America
Telephone: +1-708 873 2307
Fax: +1-779 435 8570

ATTACHMENT E
Pg. 12 of 14

Product Specifications

ANDREW®
A CommScope Company

Mechanical Specifications

Color	Light gray
Connector Interface	7-16 DIN Female
Connector Location	Bottom
Connector Quantity	6
Wind Area, maximum	0.1 m² | 1.4 ft²
Wind Loading, maximum	350.1 N @ 100 mph | 78.7 lbf @ 100 mph
Wind Speed, maximum	241.4 km/h | 150.0 mph

Dimensions

Length	1988.8 mm | 78.3 in
Outer Diameter	199.6 mm | 7.9 in
Net Weight	21.1 kg | 46.5 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed Actuator	CSH-6516A-R2
RET System	Teletilt®

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2002/95/EC	Compliant by Exemption
China RoHS SJ/T 11364-2006	Logo 2

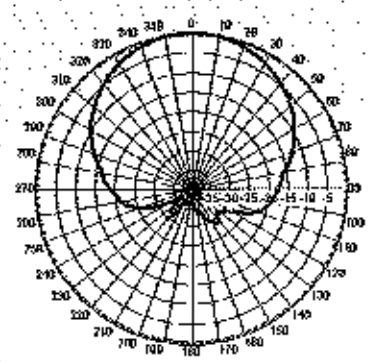
From North America, toll free
Telephone: 1 800-255-1479
Fax: 1-800-349-5444

Outside North America
Telephone: +1 708-873 2307
Fax: +1 779 435-85/9

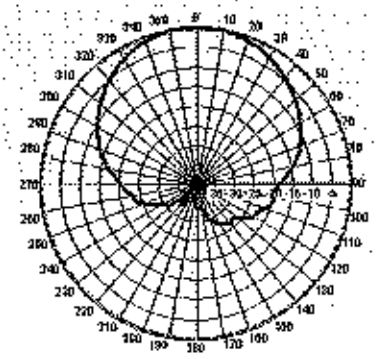
Product Specifications

ANDREW®
A CommScope Company

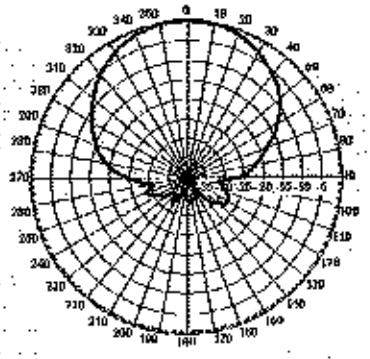
Horizontal Pattern



Freq: 1785 MHz, Tilt: 2

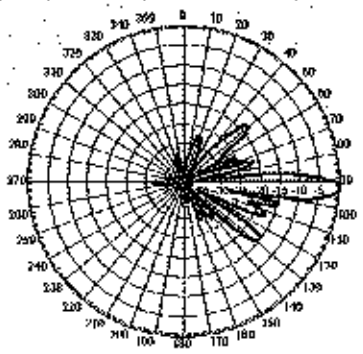


Freq: 1930 MHz, Tilt: 2

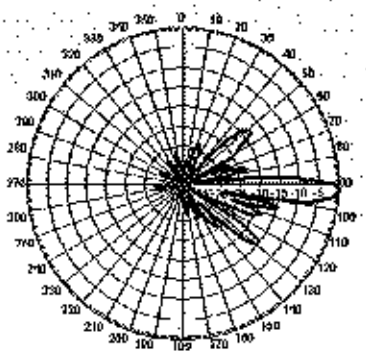


Freq: 2110 MHz, Tilt: 2

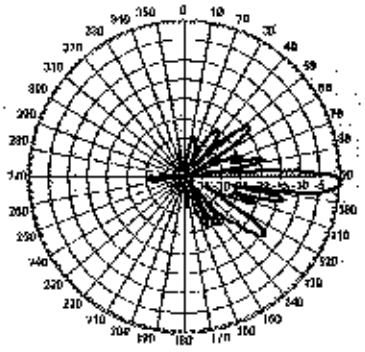
Vertical Pattern



Freq: 1785 MHz, Tilt: 2



Freq: 1930 MHz, Tilt: 2



Freq: 2110 MHz, Tilt: 2

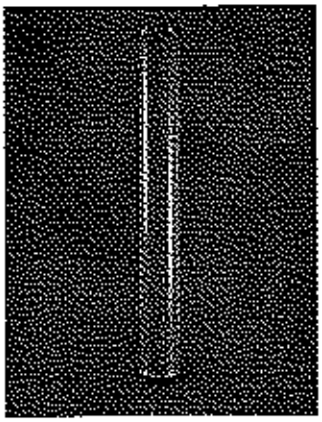
From North America, toll free
Telephone: 1 800 255-1479
Fax: 1-800-349-5444

Outside North America
Telephone: +1 708 873-2307
Fax: +1 779 435-8579

PCS Micro Accellerator™ : MTRR75-17-XXDPL

EMS Wireless

ATTACHMENT E
Pg 14 of 14



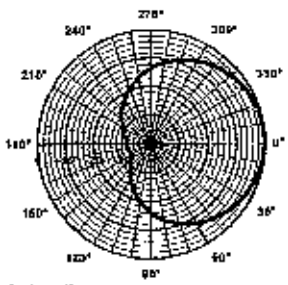
Electrical Specifications	
Azimuth Beamwidth	75°
Elevation Beamwidth (-3 dB)	6°
Elevation Sidelobes (Upper)	≥ 18 dB
Gain	17.0 dBi (14.9 dBd)
Polarization	Dual Linear, Slant (± 45°)
Port-to-Port Isolation	≥ 30 dB
Electrical Downtilt Options	0°, 2°, 4°
VSWR	1.35:1 Max
Jumper Cable Connectors	6; 7-16 DIN (female)
Power Handling	250 Watts CW
Passive Intermodulation	≥ -147 dBc [2 x 20W (+ 43 dBm)]
Lightning Protection	DC Ground (Optional Air Terminal Kit)

Mechanical Specifications		
Dimensions:	*Height*	57 inches (144.7 cm)
	Diameter	6.25 inches (15.9 cm)
Rated Wind Velocity		150 mph (241 km/hr)
Front Wind Load @ 100 mph (161 kph)		50 lbs (220 N)
Weight		20 lbs (9.1 kg)

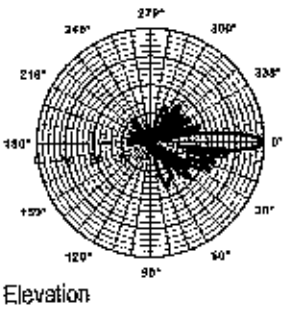
Mounting Options

MTG-A30-02, MTG-A30-03, MTG-A30-04, MTG-A40-00

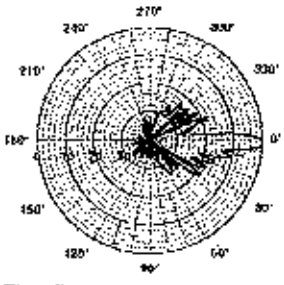
Patterns



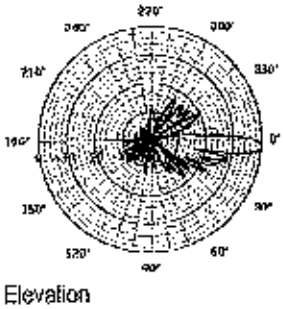
Azimuth



Elevation
0° Downtilt



Elevation
2° Downtilt



Elevation
4° Downtilt

Revised 05/31/02

+1 770.582.0555 ext. 5310 • Fax +1 770.729.0036
www.emswireless.com

ATTACHMENT F

October 6, 2008

Photosimulation of view looking west from Cascade Drive at Hollenbeck Ave.

Resurrection Parish Church
1389 Hollenbeck Avenue
Sunnyvale, CA 94087
CN3538-B

at&t

Previsualize

ATTACHMENT F
Page 2 of 3

October 6, 2008

Photosimulation of view looking east from along Cascade Drive.

Existing

Proposed 65 ft tree pole

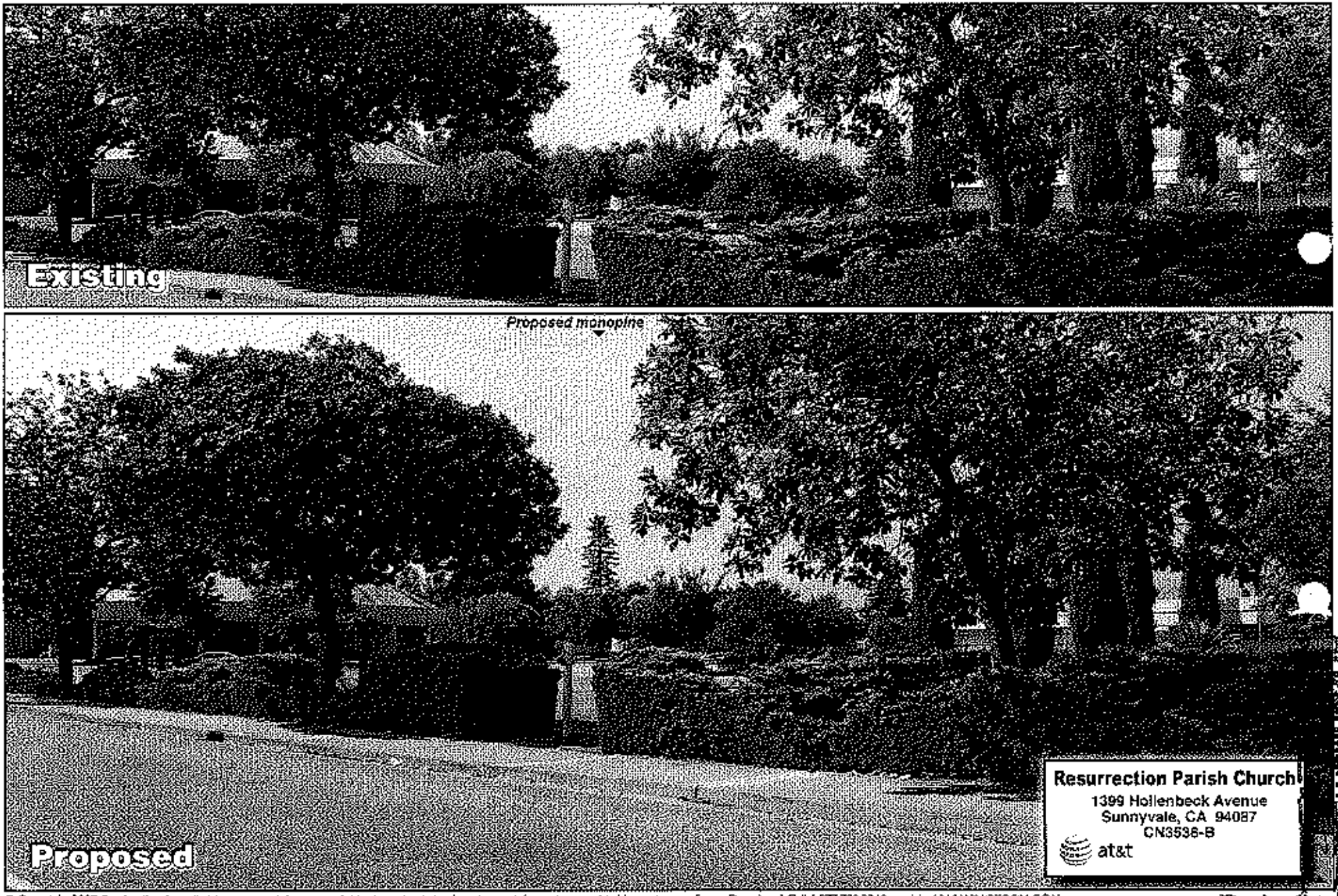
Proposed

Resurrection Parish Church
1399 Hollenbeck Avenue
Sunnyvale, CA 94087
CN3538-B
at&t

Previsualize

Photosimulation of view looking southwest from Hollenbeck Avenue, south of Fremont.

Views closer to Fremont Ave were obscured by the trees that are just coming into view in the right side of the frame.



ATTACHMENT 11

Previsualists