



# City of Santa Barbara California

## PLANNING COMMISSION STAFF REPORT

**REPORT DATE:** January 28, 2016  
**AGENDA DATE:** February 4, 2016  
**PROJECT ADDRESS:** 1 North Calle Cesar Chavez (MST2015-00570)

**TO:** Planning Commission  
**FROM:** Planning Division, (805) 564-5470, extension 4539  
 Beatriz Gularte, Senior Planner *BEG*  
 Tony Boughman, Assistant Planner *TB*

### I. PROJECT DESCRIPTION

The project consists of the installation of an FM radio antenna on the roof of the existing Vercal Building over the Calvary Chapel leasehold space. The purpose of the antenna is for the church to receive a signal from another location and transmit it locally in the Santa Barbara area. The radio station will be ancillary to the use of the property as a church and used to broadcast services, etc.

The height of the antenna will be approximately 20 feet above the roof line. The overall height of the antenna from grade will be approximately 50 feet. The proposed translator antenna operation does not involve any onsite personnel.

### II. REQUIRED APPLICATION

The discretionary application required for this project is a Conditional Use Permit (CUP) to allow the installation of a radio antenna (SBMC §28.94.030.DD).

**APPLICATION DEEMED COMPLETE:** December 11, 2015  
**DATE ACTION REQUIRED:** February 9, 2016

### III. RECOMMENDATION

If approved as proposed, the project would conform to the City's Zoning and Building Ordinances and policies of the General Plan. In addition, the size of the project is inconsequential in the context of the site and surrounding industrial neighborhood. Therefore, Staff recommends that the Planning Commission approve the project, making the findings outlined in Section IX of this report, and subject to the conditions of approval in Exhibit A.



Calvary Chapel has been issued a Construction Permit by the Federal Communication Commission (FCC) for this project. A previous CUP was approved in 1995 for a similar project but was never constructed.

**V. SITE INFORMATION**

<b>Applicant:</b>	John Cuykendall, Dudek		
<b>Property Owner:</b>	Jacques Investments		
<b>Site Information</b>			
<b>Parcel Number:</b>	017-113-012	<b>Lot Area:</b>	7.44 acres
<b>General Plan:</b>	Ocean Oriented Industrial	<b>Zoning:</b>	OM-1/SD-3
<b>Existing Use:</b>	Various non-residential	<b>Topography:</b>	Flat
<b>Adjacent Land Uses</b>			
	<b>North</b> - Industrial		<b>East</b> - Industrial
	<b>South</b> - Industrial		<b>West</b> - Industrial

**VI. ZONING AND POLICY CONSISTENCY ANALYSIS**

**A. ZONING ORDINANCE CONSISTENCY**

The City’s Zoning Ordinance requires a Conditional Use Permit for any radio or television antenna in all zones subject to certain findings. The project can be found consistent with the Zoning Ordinance upon approval of the Conditional Use Permit. The general CUP findings found in SBMC §28.94.020 and specific findings for radio antennas are provided in SBMC §28.94.030.DD.2 are discussed in Section IX of this report.

**B. GENERAL PLAN CONSISTENCY**

One of the main findings for a CUP is that the use is deemed essential or desirable to the public convenience or welfare and is in harmony with the various elements or objectives the Comprehensive General Plan. As explained previously, the church use is an existing use on this site. The proposed antenna is an ancillary use that would allow broadcasting of services in the Santa Barbara area.

The site is a large industrial property surrounded by industrial uses. The General Plan policies relevant to this project address issues of Visual Resources. A central goal of the Environmental Resources Element is to protect, maintain, and enhance the scenic character of the City. Relevant General Plan Aesthetics and Visual Resources Policies include:

*ER29. Visual Resources Protection. New development or redevelopment shall preserve or enhance important public views and viewpoints for public enjoyment, where such protection would not preclude reasonable development of property.*

Policy ER29 addresses important public views and viewpoints for public enjoyment; however, these are not present at the project site. The nearest public viewpoint is Chase Palm Park on East Cabrillo Boulevard, and the proposed antenna would not be visible from there due to intervening trees and structures, and the distance.

*ER30. Enhance Visual Quality. Not only retain, but improve visual quality of the city wherever practicable.*

Policy ER30 calls for improving the visual quality of the City when practicable. Given this application's scope of work and lack of visual impacts, it would not be practicable to require visual enhancements.

The antenna's placement well over 100 feet from the sides of the roof results in sight lines such that a viewer on the ground has to be so far away from the antenna that it's appearance is miniscule. The slender ½ inch diameter antenna material and the four inch diameter round steel column support do not pose visual concerns. The applicant has provided visual simulations (see Exhibit B).

## **VII. ENVIRONMENTAL REVIEW**

Staff has determined that the proposed antenna is Categorically Exempt from the California Environmental Quality Act (CEQA) per Guidelines Section 15303 for New Construction or Conversion of Small Structures. The project is mounted on an existing rooftop mechanical platform and, once installed, would not produce significant noise or create a significant hazard. The firm of Preiser Consulting evaluated the proposal for compliance with Federal Communications Commission guidelines for human exposure to radiofrequency electromagnetic fields (see Exhibit C). Their calculations found that the project's emissions would not exceed 2.85% of the applicable public exposure limit, or 18.25% of the applicable occupational limit, and, therefore, well within the guidelines. However, Preiser Consulting did recommend a warning signage below the antenna on the antenna mounting because radio frequency exposure within 3 feet of the antenna, such as may be encountered by maintenance personnel working at elevated positions at the antenna, may exceed the applicable occupational Maximum Permissible exposure. This is included as a condition of approval. The proposal poses no significant environmental effects, including visual impacts.

## **VIII. DESIGN REVIEW**

This project was reviewed by the ABR on December 7, 2015 (see Exhibit D). The ABR found the application acceptable as submitted, and stated that the project has a very minor impact and complies with the Compatibility Criteria. They directed the project to return to the ABR Consent Agenda for design review approval following Planning Commission approval.

## **IX. FINDINGS**

The Planning Commission finds the following:

### **General Findings for the Conditional Use Permit (SBMC §28.94.020)**

1. *Any such use is deemed essential or desirable to the public convenience or welfare and is in harmony with the various elements or objectives of the Comprehensive General Plan.*

The antenna installation is essential and desirable to the public convenience or welfare and, as discussed in Section VI.B, is consistent with applicable policies of the Santa Barbara General Plan.

2. *Such uses will not be materially detrimental to the public peace, health, safety, comfort and general welfare and will not materially affect property values in the particular neighborhood involved.*

As discussed in Section VI.B, and Section VII above, the project will not be materially detrimental or effect property values; the equipment will be located inside the building and will not emit significant noise. The antenna will not emit radio frequency radiation above levels established by the Federal Communications Commission.

3. *The total area of the site and the setbacks of all facilities from property and street lines are of sufficient magnitude in view of the character of the land and of the proposed development that significant detrimental impact on surrounding properties is avoided.*

The project is buffered adequately to avoid significant detrimental impacts on surrounding properties by the location of the small antenna on the building's high roof. The location of the antenna on the 7.44 acre site is nearly 200 feet from the nearest property line.

4. *Adequate access and off-street parking including parking for guests is provided in a manner and amount so that the demands of the development for such facilities are adequately met without altering the character of the public streets in the area at any time.*

The antenna is an FM "translator" antenna which receives a signal from another location and transmits it locally. It does not involve any on site personnel, therefore does not generate any on-site parking demand.

5. *The appearance of the developed site in terms of the arrangement, height, scale and architectural style of the buildings, location of parking areas, landscaping and other features is compatible with the character of the area. The Planning Commission shall have the authority to approve the design of open space. Design shall mean size, shape, location and usability for proposed private, public, or quasi-public purposes and development. Approval of such open spaces may be expressly conditioned upon an offer of conveyance by the owner to the City of Santa Barbara of the development rights, the right to prohibit the construction of additional buildings, or other property rights, necessary to achieve the purposes set forth in this title.*

The project has no significant effect on the appearance of the developed site. The size of the proposed antenna mounted on the roof of the Vercal Building is insignificant in proportion to the existing building. The project is compatible with the industrial character of the area, and has no effect on open space.

6. *Compliance with any additional specific requirements for a conditional use permit. The Planning Commission may impose such other conditions and restrictions upon the proposed use consistent with the Comprehensive General Plan and may require security to assure satisfactory performance of all conditions and restrictions.*

Staff has no recommended additional specific requirements.

**Additional Specific Findings for Antennas (SBMC §28.94.030.DD.2):**

a. *Shared Use of Support Structure. The applicant had made a good faith effort to demonstrate that no existing or planned support structure, including an antenna tower, is available to accommodate the proposed antenna.*

The proposal is using an existing rooftop mechanical platform to attach the four inch pole for the support structure.

*b. Site Size. The site is of a size and shape sufficient to provide an adequate setback from the base of the antenna support structure to any property line abutting a residential use.*

The subject property has no property line abutting a residential use, and there is no residential use in proximity to the project.

*c. Visual Impact. The project has been reviewed by the Architectural Board of Review. The Board may take action on the location of the antenna(s) on the site, color and size so as to minimize any adverse visual impacts by requiring that the antenna and its supporting structure be designed and placed so as to be as visually unobtrusive as feasible, taking into consideration technical engineering and other pertinent factors.*

As discussed in Section VIII, the ABR found that the antenna and supporting structure is approvable as submitted.

*d. Non-ionizing Electromagnetic Radiation (NIE) Emissions. Any new transmitters and/or antennas, when combined with existing sources of NIE emissions on or adjacent to the site and when operating as designed and licensed, shall not expose the general public to ambient radiation emissions which exceed American National Standards Institute (ANSI) C95.1-1992 standard (if the Federal Communications Commission (FCC) rulemaking committee adopts a revised standard, said standard shall apply).*

As discussed in Section VII of this report and as evaluated in the Study by Preiser Consulting dated November 30, 2015, the antenna will not expose the general public to ambient radiation emissions in excess of applicable FCC standards. Appropriate signage will be included to warn maintenance personnel working at an elevated position of the antenna.

Exhibits:

- A. Conditions of Approval
- B. Applicant's photographic simulations
- C. Radio Frequency Compliance Study
- D. ABR Minutes December 7, 2015
- E. Letter from Applicant
- F. Plans

## PLANNING COMMISSION CONDITIONS OF APPROVAL

1 NORTH CALLE CESAR CHAVEZ  
CONDITIONAL USE PERMIT  
FEBRUARY 4, 2016

In consideration of the project approval granted by the Planning Commission and for the benefit of the owner(s) and occupant(s) of the Real Property, the owners and occupants of adjacent real property and the public generally, the following terms and conditions are imposed on the use, possession, and enjoyment of the Real Property:

- A. **Order of Development.** In order to accomplish the proposed development, the following steps shall occur in the order identified:
1. Obtain all required design review approvals.
  2. Pay Land Development Team Recovery Fee (30% of all planning fees, as calculated by staff) at time of building permit application.
  3. Record any required documents (see Recorded Conditions Agreement section).
  4. Obtain a Building Permit.

Details on implementation of these steps are provided throughout the conditions of approval.

- B. **Recorded Conditions Agreement.** The Owner shall execute a *written instrument*, which shall be prepared by Planning staff, reviewed as to form and content by the City Attorney, and Community Development Director, recorded in the Office of the County Recorder, and shall include the following:
1. **Approved Development.** The development of the Real Property approved by the Planning Commission on February 4, 2016 is limited to the radio antenna and related improvements shown on the plans signed by the chairperson of the Planning Commission on said date and on file at the City of Santa Barbara.
  2. Per the recommendation of the Radio Frequency Compliance Study prepared by Preiser Consulting, dated November 30, 2015, warning signage below the antenna on the antenna mounting structure shall be installed to prevent exposure within 3 feet of the antenna as may be encountered by maintenance personnel working at elevated positions.
- C. **Requirements Prior to Permit Issuance.** The Owner shall submit the following, or evidence of completion of the following, for review and approval by the Department listed below prior to the issuance of any permit for the project. Please note that these conditions are in addition to the standard submittal requirements for each department.
1. **Community Development Department.**
    - a. **Recordation of Agreements.** The Owner shall provide evidence of recordation of the written instrument that includes all of the Recorded Conditions identified in condition B "Recorded Conditions Agreement" to the Community Development Department prior to issuance of any building permits.

**EXHIBIT A**

- b. **Conditions on Plans/Signatures.** The final Resolution shall be provided on a full size drawing sheet as part of the drawing sets. Each condition shall have a sheet and/or note reference to verify condition compliance. A statement shall also be placed on the sheet as follows: The undersigned have read and understand the required conditions, and agree to abide by any and all conditions which are their usual and customary responsibility to perform, and which are within their authority to perform.

Signed:

Property Owner	Date	
Contractor	Date	License No.
Architect	Date	License No.
Engineer	Date	License No.

- 2. **Approval Limitations.**
  - a. The conditions of this approval supersede all conflicting notations, specifications, dimensions, and the like which may be shown on submitted plans.
  - b. The antenna and supports shall be located substantially as shown on the plans approved by the Planning Commission.
  - c. Any deviations from the project description, approved plans or conditions must be reviewed and approved by the City, in accordance with the Planning Commission Guidelines. Deviations may require changes to the permit and/or further environmental review. Deviations without the above-described approval will constitute a violation of permit approval.
- 3. **Litigation Indemnification Agreement.** In the event the Planning Commission approval of the Project is appealed to the City Council, Applicant/Owner hereby agrees to defend the City, its officers, employees, agents, consultants and independent contractors ("City's Agents") from any third party legal challenge to the City Council's denial of the appeal and approval of the Project, including, but not limited to, challenges filed pursuant to the California Environmental Quality Act (collectively "Claims"). Applicant/Owner further agrees to indemnify and hold harmless the City and the City's Agents from any award of attorney fees or court costs made in connection with any Claim.

Applicant/Owner shall execute a written agreement, in a form approved by the City Attorney, evidencing the foregoing commitments of defense and indemnification within thirty (30) days of being notified of a lawsuit regarding the Project. These

commitments of defense and indemnification are material conditions of the approval of the Project. If Applicant/Owner fails to execute the required defense and indemnification agreement within the time allotted, the Project approval shall become null and void absent subsequent acceptance of the agreement by the City, which acceptance shall be within the City's sole and absolute discretion. Nothing contained in this condition shall prevent the City or the City's Agents from independently defending any Claim. If the City or the City's Agents decide to independently defend a Claim, the City and the City's Agents shall bear their own attorney fees, expenses, and costs of that independent defense.

**NOTICE OF CONDITIONAL USE PERMIT APPROVAL TIME LIMITS:**

The Planning Commission action approving the Conditional Use Permit shall terminate two (2) years from the date of the approval, per Santa Barbara Municipal Code §28.87.360, unless:

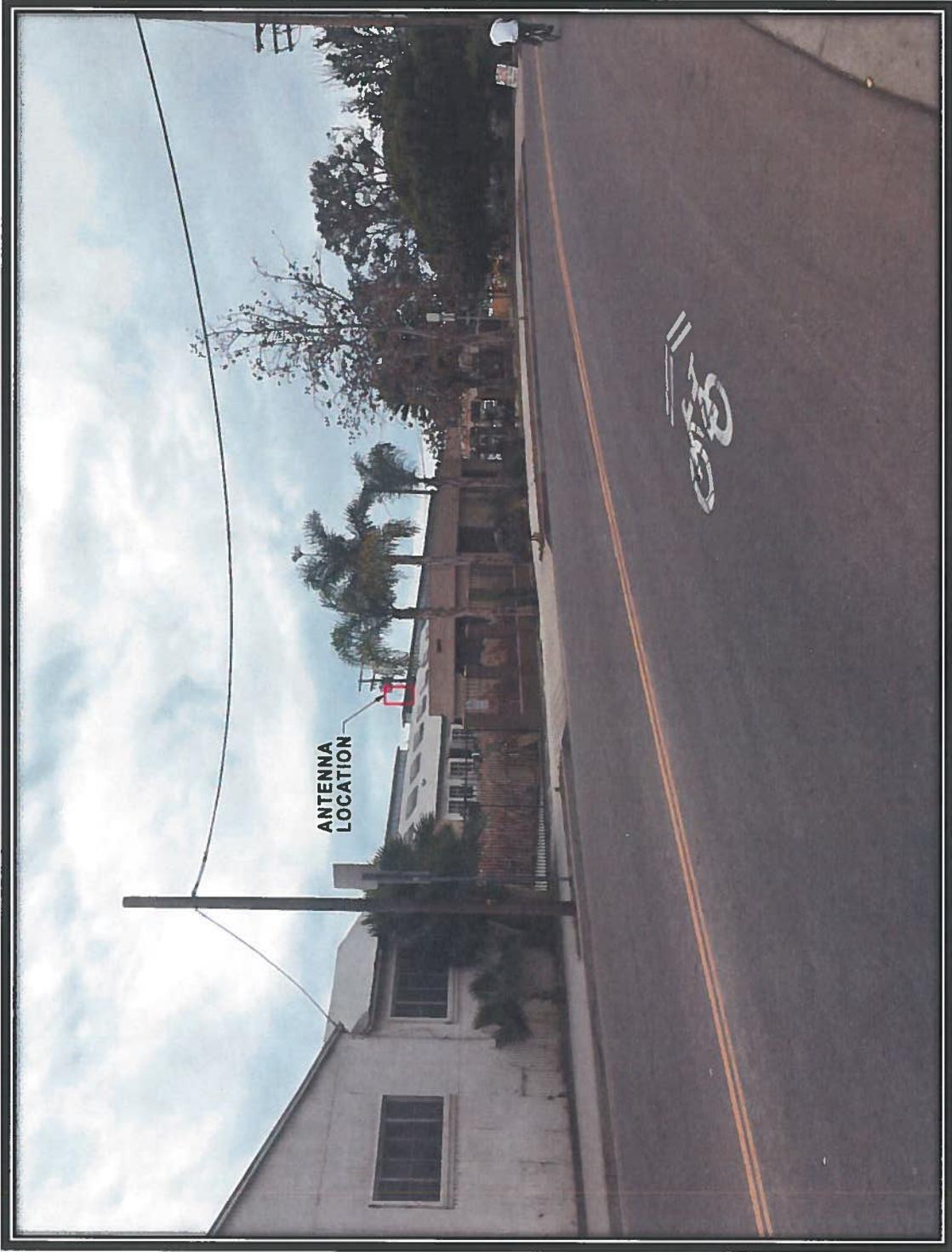
1. An extension is granted by the Community Development Director prior to the expiration of the approval; or
2. A Building permit for the use authorized by the approval is issued and the construction authorized by the permit is being diligently pursued to completion and issuance of a Certificate of Occupancy.



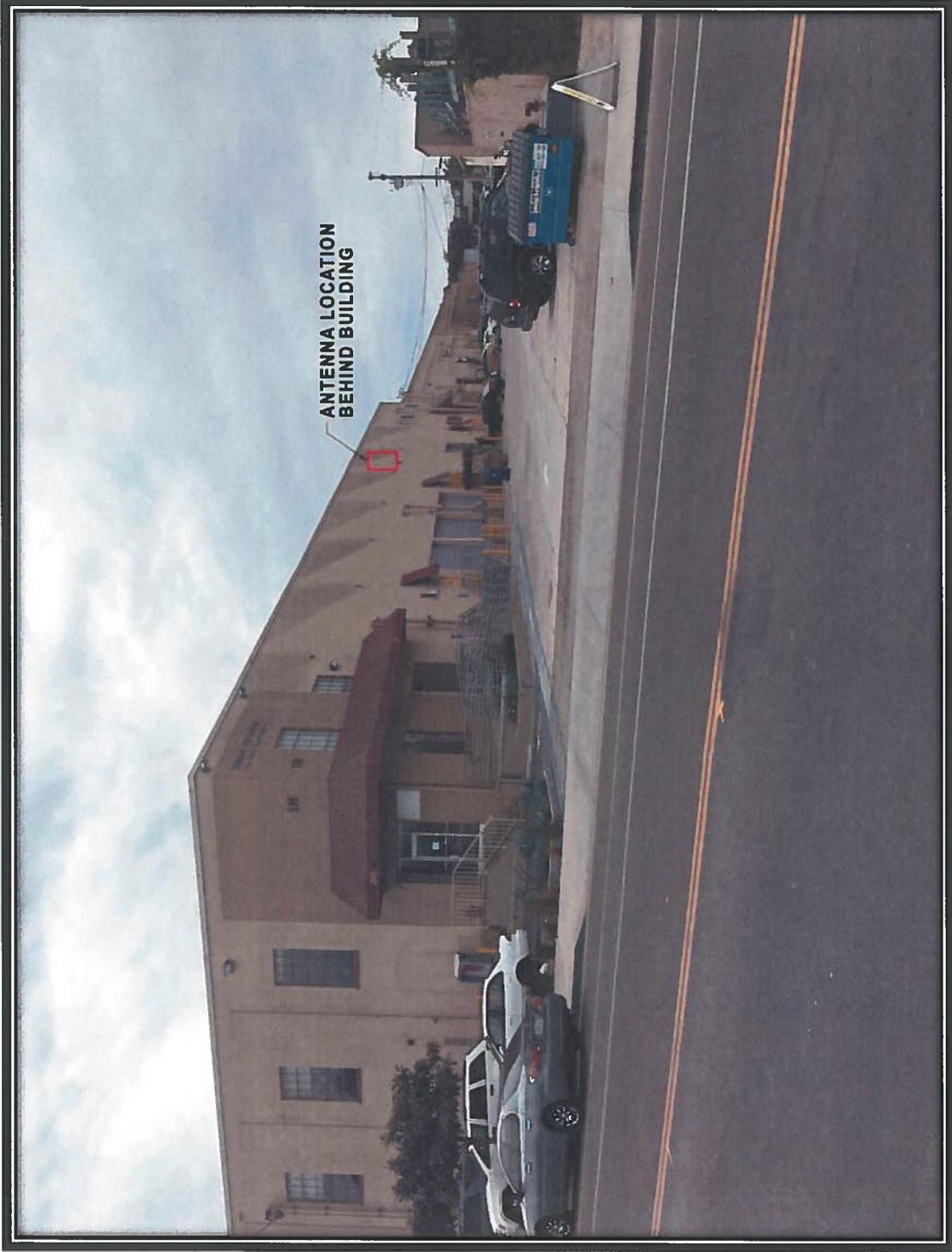
**VISUAL SIMULATIONS**



**Visual Simulation No.1: Looking SW at proposed radio antenna from E. Yanonali Street.**



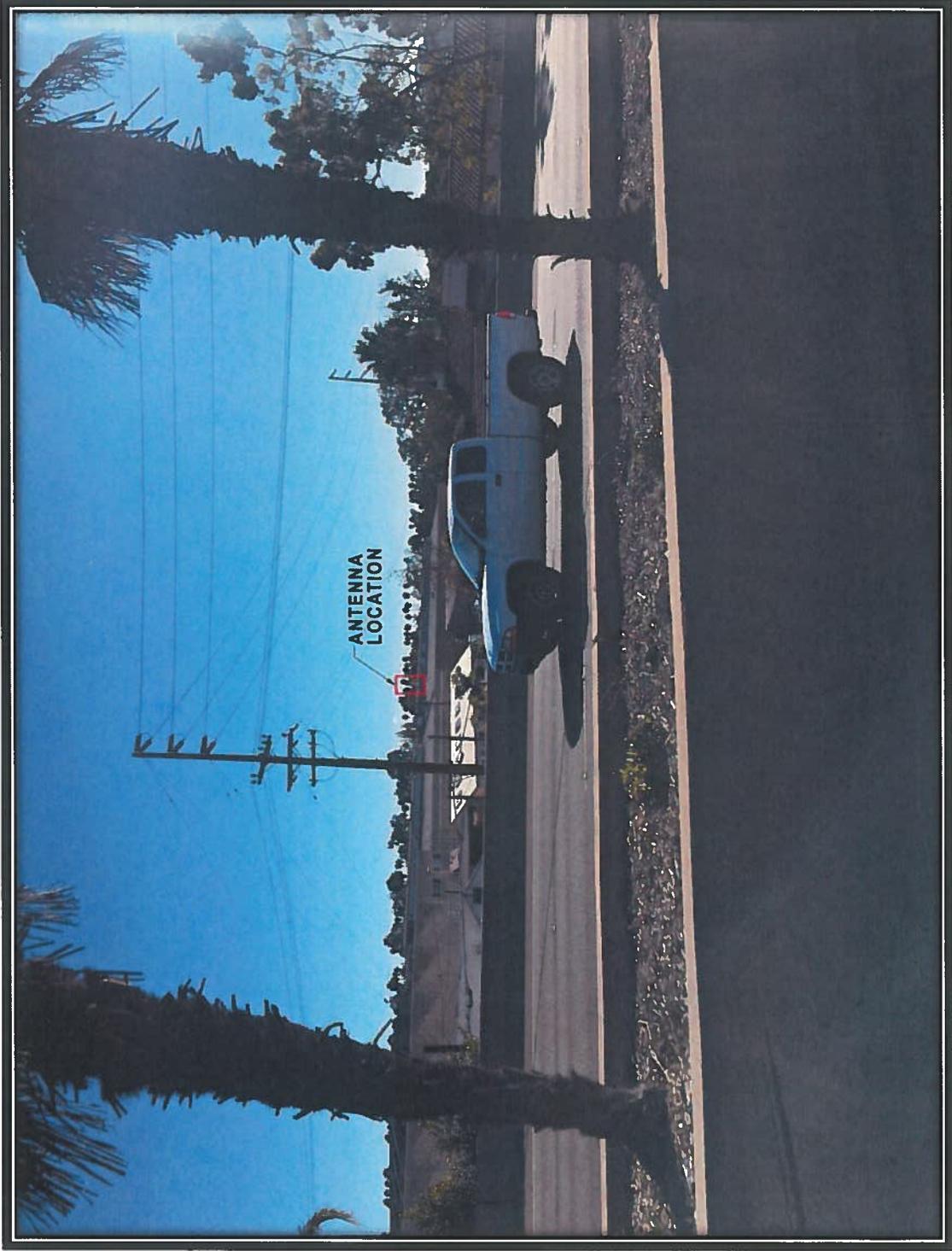
**Visual Simulation No.2:** Looking SW at proposed radio antenna from E. Yanonali Street/Calle Cesar Chavez intersection.



Visual Simulation No.3: Looking west at proposed radio antenna from Calle Cesar Chavez.



Visual Simulation No.4: Looking north at proposed radio antenna from Cabrillo Blvd.



**Visual Simulation No.5:** Looking south at proposed radio antenna from northbound lane of US 101 Freeway.



# Radio Frequency Compliance Study

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**Calvary Chapel Low Power FM Broadcast Station  
Santa Barbara, CA**

**11/30/2015**

**Preiser Consulting**  
23836 La Posta Court, Corona, CA 92883  
·Tel 951.489.1793 · Fax 951.638.4150

**EXHIBIT C**



**RF Compliance Study  
Calvary Chapel Low Power FM Broadcast Station  
Santa Barbara, CA**

**Introduction**

Preiser Consulting has been engaged by Dudek to conduct an Radio Frequency (RF) compliance study relating to an application request on behalf of Calvary Chapel Santa Barbara for a Conditional Use Permit/Coastal Development Permit and Architectural Board of Review for a proposed radio antenna to be located at 1 N. Calle Cesar Chavez in Santa Barbara, CA.

**System Description**

The proposed project involves the installation of a Low Power FM transmitter antenna on top of the roof of an existing industrial building. The antenna is a single bay circular polarized antenna, approximately 24 inches wide and 36 inches long, comprised of ½ inch diameter anodized aluminum. The supporting mounting structure will be a 4-inch diameter pipe extending approximately 20 feet above the roof line. The top of the mounting pipe is at 50 feet above ground, while the center of the antenna is at 47 feet above ground.

Attachment 1 contains a photo of the antenna that is to be installed, while Attachment 2 shows the typical horizontal and vertical patterns of the antenna.

Calvary Chapel Santa Barbara was issued a Construction Permit by the Federal Communications Commission (FCC) to construct and operate a Lower Power FM Station on the frequency of 99.5 MHz with an effective radiated power (ERP) of 100 watts. Attachment 3 contains the FCC Construction Permit.

## **Methodology**

In conducting the RF Compliance Study, relevant site application documents provided by Dudek were reviewed and analyzed against current FCC regulations and guidelines, industry standards and best practices. This includes a review of the project construction drawings by DMHA, dated October 27, 2015, and other documents provided by Dudek relative to the RF safety aspects to determine compliance with Federal Communications Commission guidelines. RF exposure levels were calculated using methods detailed in their Office of Engineering & Technology Bulletin No. 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields," August 1997 ("OET Bulletin 65"). Based on the OET Bulletin 65, the Maximum Permissible Exposure ("MPE") for the general population/uncontrolled exposure is 0.2 mW/cm<sup>2</sup> in the FM broadcast spectrum. Permissible levels for exposure under occupational conditions, such as may be encountered by maintenance personnel, are five times higher.

## **Findings Relating to Radio Frequency Emissions Safety**

Based on calculations of potential RF emission levels consistent with FCC guidelines, the maximum calculated exposure at ground level would not exceed 2.85% of the applicable public exposure limit. These results are based on very conservative modeling assumptions; actual levels are expected to be significantly lower.

Exposure at roof level from any walkable surface would not exceed 18.25% of the applicable occupational exposure limit. This is the calculated exposure on some points on the maintenance platform. Again, these results are based on very conservative modeling assumptions; actual levels are expected to be significantly lower.

Exposure levels when spatially averaged may exceed the public MPE limits within a 3-foot zone from the antenna. However, this zone would only be accessible by maintenance personnel working at an elevated position at the antenna. This can be mitigated by RF safety awareness and training of personnel that may work within this defined zone, as well as a warning sign

mounted approximately 3 feet below the antenna on the antenna mounting structure. See Attachment for the recommended signage.

It is my opinion that the wireless facility as proposed will comply with FCC guidelines for levels of radio frequency exposure.

### **Summary and Conclusions**

Preiser Consulting is of the opinion that:

- The proposed project will meet Federal Communications Commission guidelines pertaining to radio frequency emissions exposure to the general public at ground level and on any walkable surface on the roof.
- RF exposure within 3 feet of the antenna, such as may be encountered by maintenance personnel working at elevated positions, may exceed the applicable occupational MPE. This may be mitigated by installation of warning signage below the antenna on the antenna mounting structure as recommended herein.

**Certification**

1. I have read and fully understand the FCC regulations concerning RF safety and the control of human exposure to RF fields (47 CFR 1.1301 et seq).
2. To the best of my knowledge, the statements and information disclosed in this report are true, complete and accurate.
3. The analysis of site RF compliance provided herein is consistent with the applicable FCC regulations, additional guidelines issued by the FCC, and industry practice.

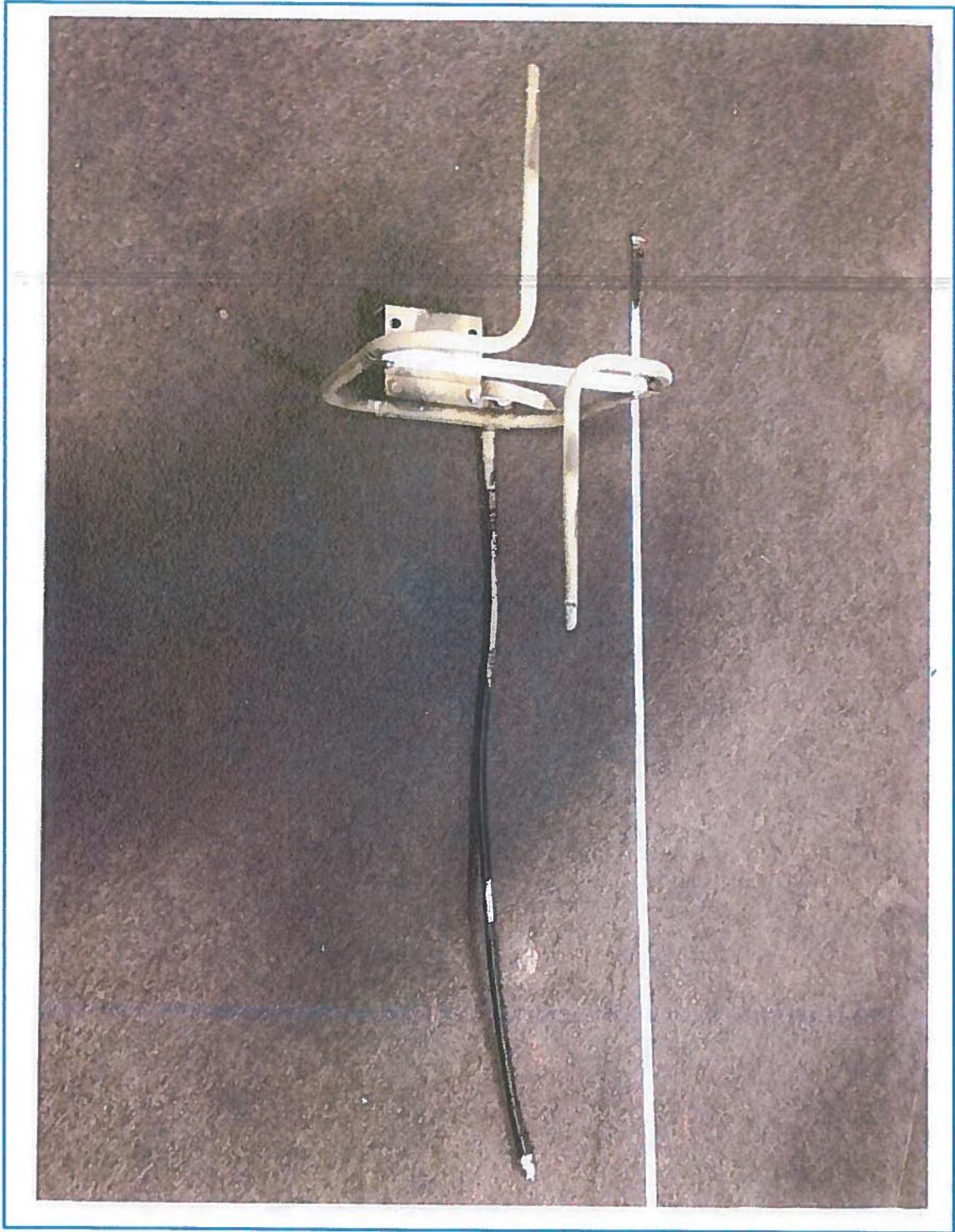
Date: November 30, 2015



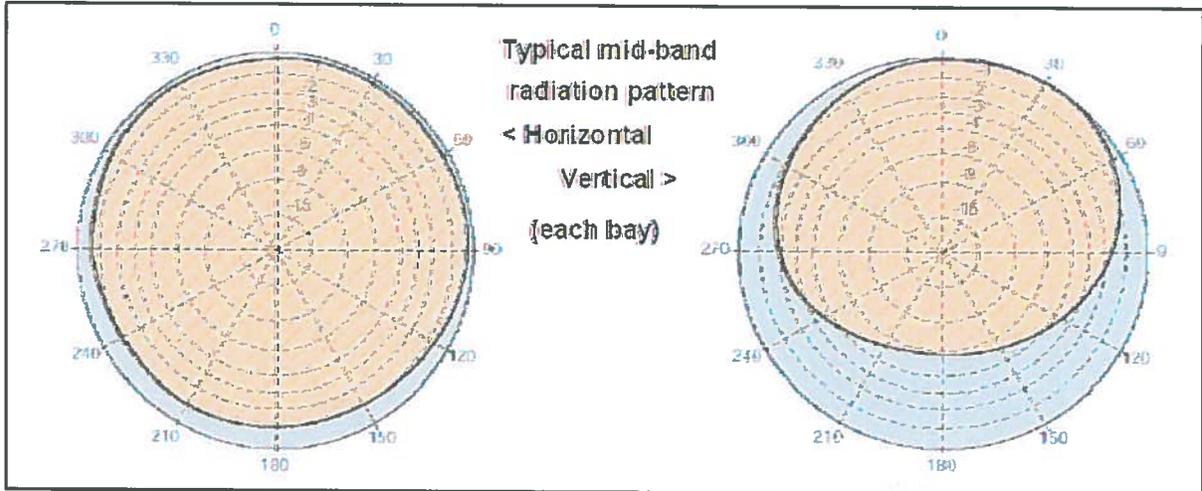
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Dieter J. Preiser, PMP

**Attachment 1**  
**Antenna Photo**



Attachment 2  
Typical Pattern for Single Bay Antenna



**Attachment 3**  
**FCC Construction Permit**



United States of America  
**FEDERAL COMMUNICATIONS COMMISSION**  
**LOW POWER FM BROADCAST STATION**  
**CONSTRUCTION PERMIT**

Authorizing Official:

Official Mailing Address:

CALVARY CHAPEL OF SANTA BARBARA  
1 NORTH CALLE CESAR CHAVEZ  
#21  
SANTA BARBARA CA 93103

James D. Bradshaw  
Deputy Chief  
Audio Division  
Media Bureau

Facility ID: 196041

Grant Date: August 29, 2016

Call Sign: NEW

This permit expires 3:00 a.m.  
local time, 18 months after the  
grant date specified above.

Permit File Number: BNPL-20131113AIR

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be made only in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules. See Section 73.875.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

Name of Permittee: CALVARY CHAPEL OF SANTA BARBARA

Station Location: CA-SANTA BARBARA

Frequency (MHz): 99.5

Channel: 25B

Class: LP100

Hours of Operation: Unlimited

Call sign: NEW

Permit No.: BNPL-20131113A1E

Transmitter: Type Certified. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Transmitter output power: As required to operate within authorized range of effective radiated power.

Antenna type: Non-Directional

Antenna Coordinates: North Latitude: 34 deg 25 min 05 sec  
West Longitude: 119 deg 40 min 59 sec

Maximum Effective radiated power in the Horizontal Plane (watts): 100

Minimum Effective radiated power in the Horizontal Plane (watts): 50

Height of radiation center above ground (Meters): 15

Height of radiation center above mean sea level (Meters): 21

Height of radiation center above average terrain (Meters): -183

Antenna structure registration number: Not Required

Overall height of antenna structure above ground: 15 Meters

Obstruction marking and lighting specifications for antenna structure:

It is to be expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303(g) of the Communications Act of 1934, as amended.

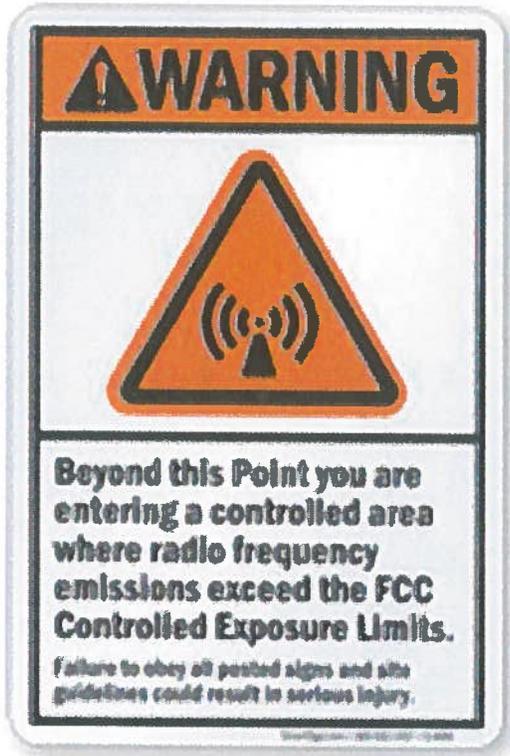
None Required

Special operating conditions or restrictions:

- 1 The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.

\*\*\* END OF AUTHORIZATION \*\*\*

Attachment 4  
Recommended Signage on Antenna Mounting Structure



## Attachment 5 The FCC MPE Limits

The Federal Communications Commission (FCC) has established limits for maximum continuous human exposure to RF fields as directed by the Telecommunications Act of 1996.

The FCC maximum permissible exposure (MPE) limits represent the consensus of federal agencies and independent experts responsible for RF safety matters. Those agencies include the National Council on Radiation Protection and Measurements (NCRP), the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the American National Standards Institute (ANSI), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). In developing its guidelines, the FCC also considered input from the public and technical community – notably the Institute of Electrical and Electronics Engineers (IEEE). The FCC's RF exposure guidelines are incorporated in Section 1.301 et seq of its Rules and Regulations (47 CFR 1.1301-1.1310). Those guidelines specify MPE limits for two types of exposures to RF energy:

1. Occupational / Controlled Exposure – persons who are exposed as a consequence of their employment and are fully aware of the potential for exposure and have the ability to exercise control over their exposure.
2. General Population/Uncontrolled Exposure – apply when one is exposed and may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

The specified continuous exposure MPE limits are based on known variation of human body susceptibility in different frequency ranges, and a Specific Absorption Rate (SAR) of 4 watts per kilogram, which is universally considered to accurately represent human capacity to dissipate incident RF energy (in the form of heat).

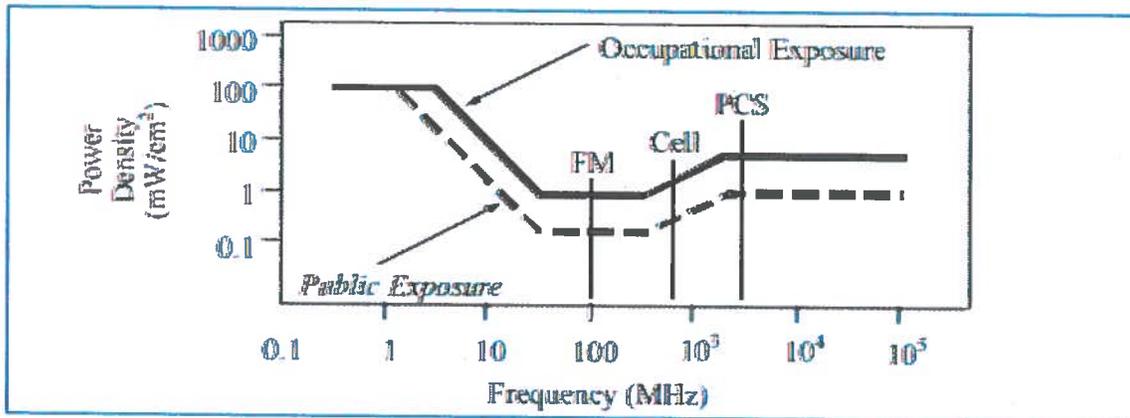
The occupational MPE guidelines incorporate a safety factor of 10 or greater with respect to RF levels known to represent a health hazard, and an additional safety factor of five is applied to

the MPE limits for general population exposure. Thus, the general population MPE limit has a built-in safety factor of more than 50. The limits were constructed to appropriately protect humans of both sexes and all ages and sizes and under all conditions – and continuous exposure at levels equal to or below the applicable MPE limits is considered to result in no adverse health effects or even health risk. The reason for two tiers of MPE limits is based on an understanding and assumption that members of the general public are unlikely to have had appropriate RF safety training and may not be aware of the exposures they receive; occupational exposure in controlled environments, on the other hand, is assumed to involve individuals who have had such training, are aware of the exposures, and know how to maintain a safe personal work environment.

The FCC’s RF exposure limits are expressed in two equivalent forms, using alternative units of field strength (expressed in volts per meter, or V/m), and power density (expressed in milliwatts per square centimeter, or mW/cm<sup>2</sup>). The table below lists the FCC limits for both occupational and general population exposures, using the mW/cm<sup>2</sup> reference, for the different radio frequency ranges.

Frequency Range (F) (MHz)	Occupational Exposure (mW/cm <sup>2</sup> )	General Public Exposure (mW/cm <sup>2</sup> )
0.3 - 1.34	100	100
1.34 - 3.0	100	180 / F <sup>2</sup>
3.0 - 30	900 / F <sup>2</sup>	180 / F <sup>2</sup>
30 - 300	1.0	0.2
300 - 1,500	F / 300	F / 1500
1,500 - 100,000	5.0	1.0

The diagram below provides a graphical illustration of both the FCC’s occupational and general population MPE limits.

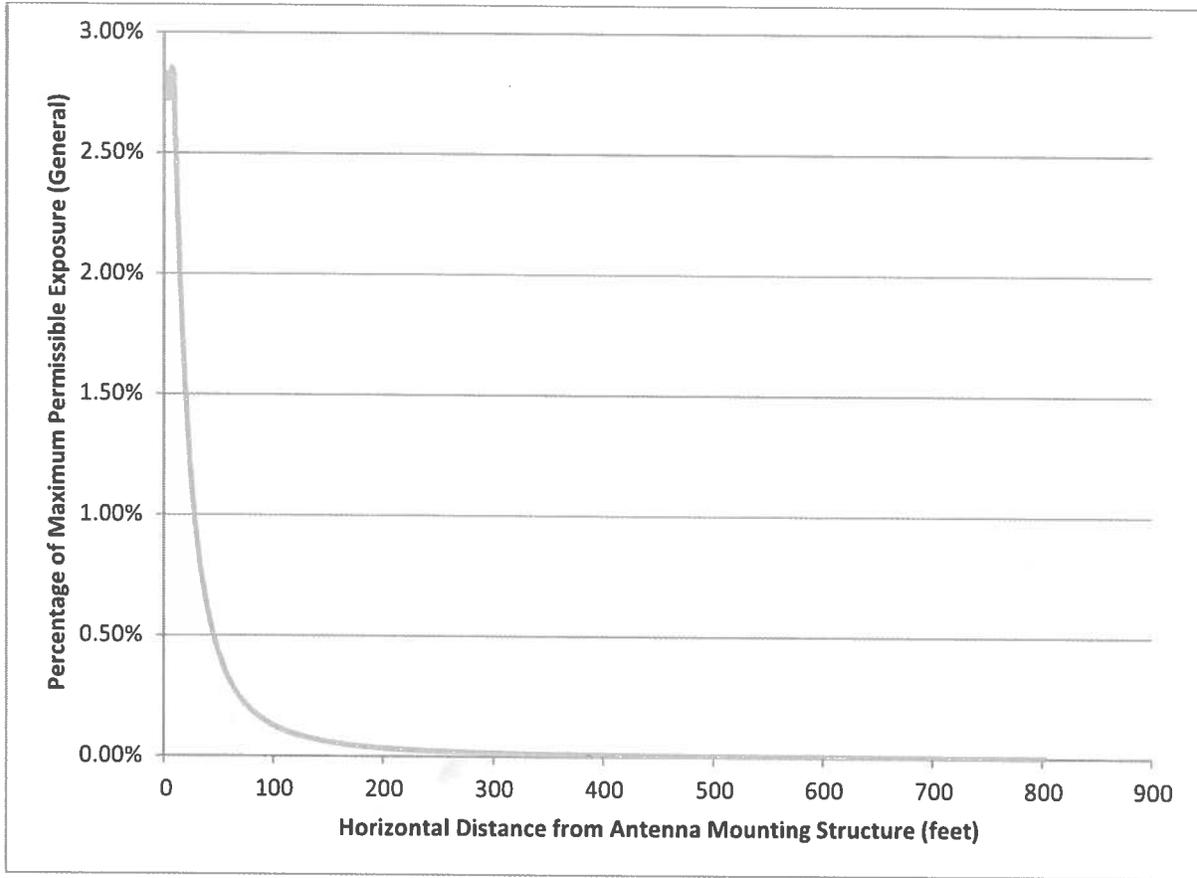


Because the FCC's RF exposure limits are frequency-shaped, the exact MPE limits applicable for a particular system installation depend on the frequency range used by the systems of interest.

The most appropriate method of determining RF compliance is to calculate the RF power density attributable to a particular system and compare that to the MPE limit applicable to the operating frequency in question. The result is usually expressed as a percentage of the MPE limit.

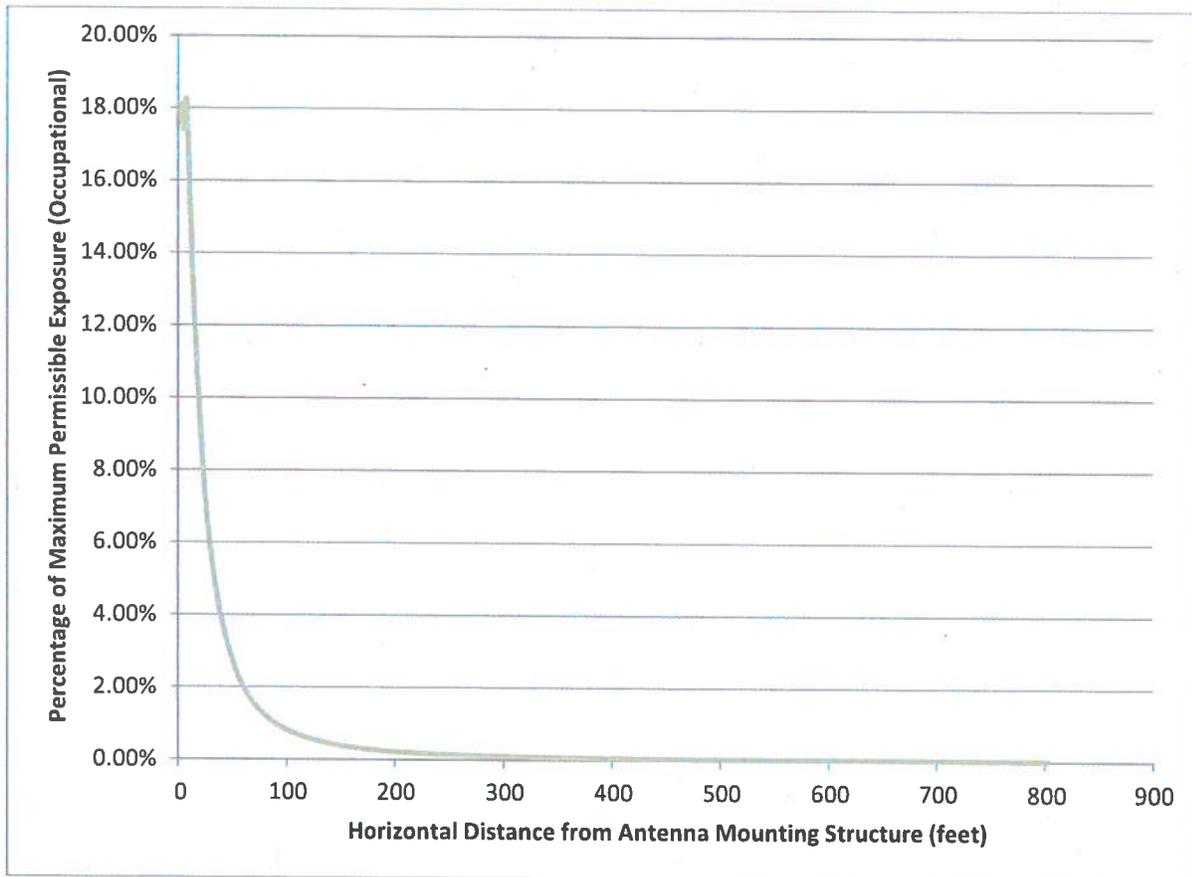
For potential exposure from multiple systems, the respective percentages of the MPE limits are added, and the total percentage compared to 100 (percent of the limit). If the result is less than 100, the total exposure is in compliance; if it is more than 100, exposure mitigation measures are necessary to achieve compliance.

**Attachment 6**  
**Ground Level Exposure Calculation Results**



Per FCC OET65.

Attachment 7  
Roof Level Exposure Calculation Results



**Attachment 8**  
**Statement of Qualifications**

**SUMMARY OF EXPERIENCE:**

Over 35 years experience in all facets of telecommunications, with specialization in wireless technologies, including six years as an independent consultant for state and local government agencies on wireless and wireline telecommunications technologies. Areas of expertise include:

- Mobile radio technologies for public-safety agencies
- Wireless site development and operation
- Tower design and implementation
- Cellular voice and data technologies
- In-building coverage solutions
- Distributed Antenna Systems (DAS)
- Fiber optic and microwave backhaul transmission
- Next Generation 9-1-1 systems design and implementation
- Satellite voice and data transmission

**CLIENTS SERVICED:**

**Wireless Site Development and Evaluation:**

- City of San Diego, CA
- City of Martinez, CA
- City of Berkeley, CA
- City of Belmont, CA
- County of Santa Barbara, CA
- City of Burlingame, CA
- City of San Jose
- City of Palo Alto

**Other Wireless Projects:**

- County of Los Angeles, CA
- County of Riverside, CA
- Salt Lake City, UT
- North-Slope Borough, AK
- Clark County, WA
- Chelan County PUD, WA
- Fresno Fire Department

**ADDITIONAL INFORMATION:**

- BS Degree in Electronic Technology, MBA in Information Systems
- Certified Telecommunications Engineer - RF Endorsement (NARTE)
- First Class FCC Radio Telephone license
- Project Management Professional (PMP) certification from the Project Management Institute (PMI)
- Certified Cost Engineer (AACE), volunteer certification course instructor.
- Served as chairman of the Engineering Sub-Committee of the California Public-Safety Radio Association. (CPRA) a local chapter of the Association of Public Safety Officials (APCO).
- Served as chairman of the Regulatory Review Committee of the California Public-Safety Radio Association representing southern California in matters before the FCC and Public Utilities Commission.
- Member of the Associated Public-Safety Communications Officials International (APCO)
- FCC Amateur Radio License, N6DGS
- Served as a Computer and Communications Specialist with the California Air National Guard, Combat Communications Squadron

**CONCEPT REVIEW - NEW ITEM: PUBLIC HEARING****2. 1 N CALLE CESAR CHAVEZ****OM-1/SD-3 Zone**

**(4:00)** Assessor's Parcel Number: 017-113-012  
 Application Number: MST2015-00570  
 Owner: Jacques Investments, LP  
 Owner: Jacques Investments, LP  
 Applicant: Dudek  
 Architect: DMHA

(Proposal to install a radio antenna on top of the existing Vercal Building in the center of the roof area over the Calvary Chapel leasehold space. The height of the antenna will be approximately 20 feet above the roof line. The overall height of the antenna from grade will be approximately 50 feet. This project requires Planning Commission review for a Conditional Use Permit and a Coastal Development Permit.)

**(Comments Only; requires Environmental Assessment, No Visual Impact findings, and Planning Commission review.)**

Actual time: 3:45 p.m.

Present: John Cuykendall, Applicant, Dudek; Jerry Rocci, Architect, DHMA; Barry Spielman, Agent for Owner; and Tony Boughman, Assistant Planner.

Public comment opened at 3:57 p.m. As no one wished to speak, public comment was closed.

Staff clarified that this antenna does not require a finding of No Visual Impact because the Planning Commission must review the project for a Conditional Use Permit for an FM radio antenna. Staff requested the ABR consider the visual impacts of the proposal as described in Planning Commission finding SBMC §28.94.030.DD.2.c.

**Motion: Continued indefinitely to the Planning Commission for return to Consent Review with comments:**

- 1) The Board finds the application acceptable as submitted.
- 2) The Board stated that the Compatibility Analysis considerations are not applicable as the project has a very minor impact and complies with the compatibility criteria, as stated. **The Board has reviewed the proposed project and found that the Compatibility Analysis criteria in SBMC §22.68.045.B were generally met as follows:**
  - a. **Compliance with City Charter and Municipal Code; General Consistency with Design Guidelines:** The Board made the finding that the proposed development project's design complies with all City Regulations and is consistent with ABR Design Guidelines.
  - b. **Compatible with Architectural Character of City and Neighborhood.** The proposed design of the proposed development is compatible with the distinctive architectural character of the Santa Barbara and of the particular neighborhood surrounding the project.
  - c. **Appropriate size, mass, bulk, height, and scale.** The proposed development's size, mass, bulk, height, and scale are appropriate for its neighborhood.
  - d. **Sensitive to Adjacent Landmarks and Historic Resources.** The design of the proposed development is appropriately sensitive to adjacent City Landmark/designated historic resources, historic sites or natural features and mitigation measures are adequate to reduce adverse impacts.

**EXHIBIT D**

- e. **Public View of the Ocean and Mountains.** The design of the proposed project responds appropriately to established scenic public vistas.
- f. **Appropriate Amount of Open Space and Landscaping.** The project's design provides an appropriate amount of open space and landscaping.

Action: Poole/Miller, 5/0/0. Motion carried. (Tripp/Wittausch absent).

**DUDEK**

621 CHAPALA STREET  
SANTA BARBARA, CALIFORNIA 93101  
T 805.963.0651 F 805.963.2074

**RECEIVED**  
JAN 06 2016

**CITY OF SANTA BARBARA  
PLANNING DIVISION**

February 4, 2016

Planning Commission  
City of Santa Barbara  
Community Development Department  
630 Garden Street  
Santa Barbara, CA 93101

**RE: Application for a Conditional Use Permit for a new Radio Antenna located at 1 N. Calle Cesar Chavez, Unit #21, City of Santa Barbara, Assessor's Parcel Number 017-113-012 (MST2015-00570)**

Dear Planning Commissioners:

On behalf of the property owner and Calvary Chapel, we are pleased to provide the following detailed project description for a Conditional Use Permit for a proposed radio antenna to be located at 1 N. Calle Cesar Chavez.

**I. Project Location and Existing Site Conditions**

The subject property is located at 1 N. Calle Cesar Chavez, south of U.S. Highway 101, in the Waterfront-East Beach coastal industrial area of the City of Santa Barbara. According to the Santa Barbara County Assessor's Office, the site consists of one parcel (Assessor Parcel Number [APN] 017-113-012) that is approximately 7.44 acres in size. The property is located south of E. Yanonali Street, west of N. Calle Cesar Chavez, and north and east of the City's El Estero Wastewater Treatment Plant (see attached assessor parcel map). The lot takes access from E. Yanonali Road and Calle Cesar Chavez.

The subject property is surrounded primarily by commercial/industrial development and the City's wastewater treatment facility. The Santa Barbara Rescue Mission is located to the north across E. Yanonali Street.

The property is zoned OM-1/SD-3 (Ocean-Oriented Light Manufacturing/ Coastal Zone).

Development on the property consists of the existing approximately 208,000 square foot Vercal Industrial Building. This building includes retail/office, industrial, and warehouse uses as well as

**EXHIBIT E**

the Calvary Chapel. The City approved a land use matrix for the Vercal-Building on October 28, 1993 that provides a baseline of allowed land use types permitted in the large industrial building. The City approved Vercal-Building land use matrix included the Calvary Chapel leased space.

## **II. Background**

On June 15, 1995, the City of Santa Barbara Planning Commission approved Resolution No. 039-95 approving a Conditional Use Permit and Coastal Development Permit to install and operate an FM radio translator and antenna on the roof above the Calvary Chapel leased space. Following the approval, the overall height was determined not adequate to provide the desired coverage for the Santa Barbara area with the approved 100 watt input power rating. Consequently, a request for a Substantial Conformance Determination (SCD) was made to the City to allow the antenna to extend additional 10-feet. The City never acted on the SCD request as it was determined that the additional 10-feet in height would not be compliant with the FCC approval that permitted a maximum height of 50-feet above ground for the radio antenna. As a result, the SCD request was withdrawn and the approved radio antenna was never constructed onsite.

As part of the 1995 CUP approval, the radio station operation was determined to be ancillary to the use of the property as a church, and therefore, consistent with the Vercal building – Baseline Land Use Matrix. Furthermore, the height of the approved antenna was below the allowed height of 70-feet in the OM-1/SD-3 zone and determined not to be an issue.

The project was determined categorically exempt from preparation of an environmental document pursuant to CEQA Guidelines Section 15301, which includes “operation, repair, maintenance, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that previously existing”. The project consisted of installation of mechanical equipment, which would allow transmitting of programs related to the existing church use of the property.

## **III. Proposed Project**

The proposed project involves a request for re-approval of a Conditional Use Permit to allow installation of an FM antenna in the Coastal Zone, similar to the previously approved antenna. The applicant, Calvary Chapel, has received a new license to operate an FM translator station at this location. On August 20, 2014, the Federal Communications Commission (FCC) issued a Construction Permit for the radio antenna to operate as a Low Power FM Station on frequency 99.5 MHz to be operated by the Calvary Chapel of Santa Barbara. The FCC permit expires 18 months (February 2016) after the grant date of August 20, 2014 (see attached FCC Permit).

The Calvary Chapel requested and received an 18 month extension to the FCC Construction Permit in December 2015 for the proposed antenna (see attached FCC Extension).

The proposal is to install a di-pole FM radio antenna on top of the existing industrial building in the center of the roof area over the church's leased space (please refer to Sheet A-1 – roof plan/site plan). The height of the 4-inch diameter pipe is approximately 11 feet above the roof clerestory line (please refer to Sheet A-2 – partial elevations). The antenna would be a loop approximately 24 inches wide and 36 inches long, comprised of ½ inch diameter anodized aluminum, and would be attached to the pipe at the top of the pole. The overall height of the antenna from the ground would be 50 feet (please refer to Sheet A-2).

The antenna is referred to as a "translator" because it receives a signal from another location and transmits it locally. The antenna has an input power rating of 100 watts or less, which will allow the proposed 50-foot antenna height to reach the desired coverage for the Santa Barbara area. The proposed use does not involve any other equipment or personnel. The radio station will be ancillary to the use of the property as a church and used to broadcast services, etc.

The site is of adequate size to accommodate the proposed new radio antenna on the roof. At approximately 11 feet above the roof clerestory height, set back approximately 200 feet from the centerline of E. Yanonali Street, 600 feet from Calle Cesar Chavez, and about 800 feet from U.S. Highway 101, the proposed radio antenna will be of sufficient distance from these streets/highway to where the antenna will be indistinguishable from these roadways. In addition, the location of the proposed antenna and adjacent uses, such as the City's El Estero Wastewater Plant and All-American Storage, and numerous existing large trees, the antenna would not affect existing public views from the waterfront area.

The applicant evaluated alternatives in utilizing existing antenna towers in the area, but no such structures exist or would be able to accommodate the proposed antenna.

#### **IV. Discretionary Action Requested**

The discretionary action requested is a Conditional Use Permit for the proposed radio antenna.

The proposed project is not requesting any modifications from any City zoning standards or policies.

#### **V. General Plan and Zoning Consistency**

The proposed radio antenna has been designed in a manner to be consistent with the allowable uses in this area as outlined in the City's General Plan Land Use Element and consistent with the

City's Zoning Ordinance. The project also conforms to all applicable General Plan policies, and the Zoning designation and regulations, and does not include any requests for modifications.

## **VI. Environmental Issues**

### Visual Analysis

The proposed radio antenna to be located on top of the Vercal building will reach a maximum height of 50-feet above ground. The Vercal building is a large industrial warehouse building with a variable roof height of approximately 30-33 feet, with a clerestory roof height of approximately 39 feet. The proposed antenna will extend approximately 11-feet above the clerestory roof height of the Vercal building. The proposed antenna has been sited on the building roof top to make it inconspicuous as possible from adjacent streets and properties. The platform which the antenna will be mounted to is approximately 146 feet from the west edge of the building and 112 feet from the north edge of the building. The antenna pole will be painted to blend with surrounding topography/vegetation to a non-glare finish. The pole is not required by the Federal Aviation Administration and Federal Communication Commission to be lit for air navigation safety.

Attached to this letter as Appendix A, are five (5) visual simulations of the proposed radio antenna from five vantage points around the property to assess the potential visual impacts from the approval and construction of the antenna. As demonstrated by the visual simulations that overlaid the proposed antenna on photographs taken from adjacent roadways of E. Yanonali Street, N. Calle Cesar Chavez, and from the north bound lanes of U.S. Highway 101, the proposed radio antenna is barely visible and difficult to find from adjacent roadways and U.S. Highway 101. From the waterfront area to the south, the antenna is indistinguishable.

The proposed location of the antenna on the roof, its small size, and the color of the antenna to be selected, minimize any adverse visual impacts. The antenna and its supporting structure will be designed and placed so as to ensure it will be visually unobtrusive as feasible.

### EMF

The proposed antenna has a frequency of 99.5 and a power density of 100, similar to the previously approved antenna, of which both are below current applicable Institute of Electrical and Electronics Engineers and American National Standards Institute (IEEE-ANSI) standard for human exposure. Attached to this letter is a Radio Frequency Compliance Study prepared by Preiser Consulting confirming that the proposed antenna complies with the FCC guidelines pertaining to radio frequency emission exposure to the general public, etc. Furthermore, the

surrounding land uses are mostly non-residential, with exception of the church, which is mostly utilized by members on the weekends.

The new antenna, when combined with existing sources of a Non-ionizing Electromagnetic Radiation (NIER) emissions on or adjacent to the site would not expose the general public to ambient radiation emissions which exceed American National Standards Institute (ANSI) C95.1-1992 standard, as there are no other antennas on the subject site.

### **VII. Design Review**

The proposed project was presented to the Architectural Board of Review (ABR) for conceptual review on December 7, 2015. The ABR found the proposed radio antenna acceptable as submitted and complies with the compatibility criteria in SBMC Section 22.68.045.B.

### **VIII. Project Justification**

The proposed radio antenna will provide an important and warranted service to members of the community along the South Coast of Santa Barbara as it will allow for the transmitting of programs related to the existing church use. Design review from the Architectural Board of Review (ABR) has been supportable. The proposed project is appropriate in its location, size, and scale to existing development in the vicinity. The proposed structure and use is compatible with adjacent development surrounding the site.

On behalf of the project team, we would like to thank the Commission for its time and consideration, and respectfully request the Commission's support of the proposed project. Should you have any questions or concerns regarding our application prior to the hearing date, please do not hesitate to contact me at (805) 308-8533 or e-mail me at [jcuykendall@dudek.com](mailto:jcuykendall@dudek.com).

Sincerely,

**DUDEK**



John T. Cuykendall  
Project Manager/ Environmental Planner

cc: Troy Spilman, Calvary Chapel  
John Davies, Davies Communication  
Michael Holliday, DMHA Architecture  
Jerry Rocci, DMHA Architecture  
Jens Amile, Van Sande Structural Consultants

Appendix A: Visual Simulations

Attachments

1-copy: Assessor Parcel Map  
1-copy: FCC Construction Permit  
1-copy: FCC Construction Permit Extension  
1-copy: 8 1/2" x 11" Roof/Site Plan, Partial Elevations, and Arch./Eng. Details  
7-copies: 15"x22" Sheet A-1: Roof / Site Plan  
7-copies: 15"x22" Sheet A-2: Partial Elevations  
7-copies: 15"x22" Sheet A-3: Architectural and Engineering Details

APPENDIX A  
VISUAL SIMULATIONS

**VISUAL SIMULATIONS**



**Visual Simulation No.1:** Looking SW at proposed radio antenna from E. Yanonali Street.



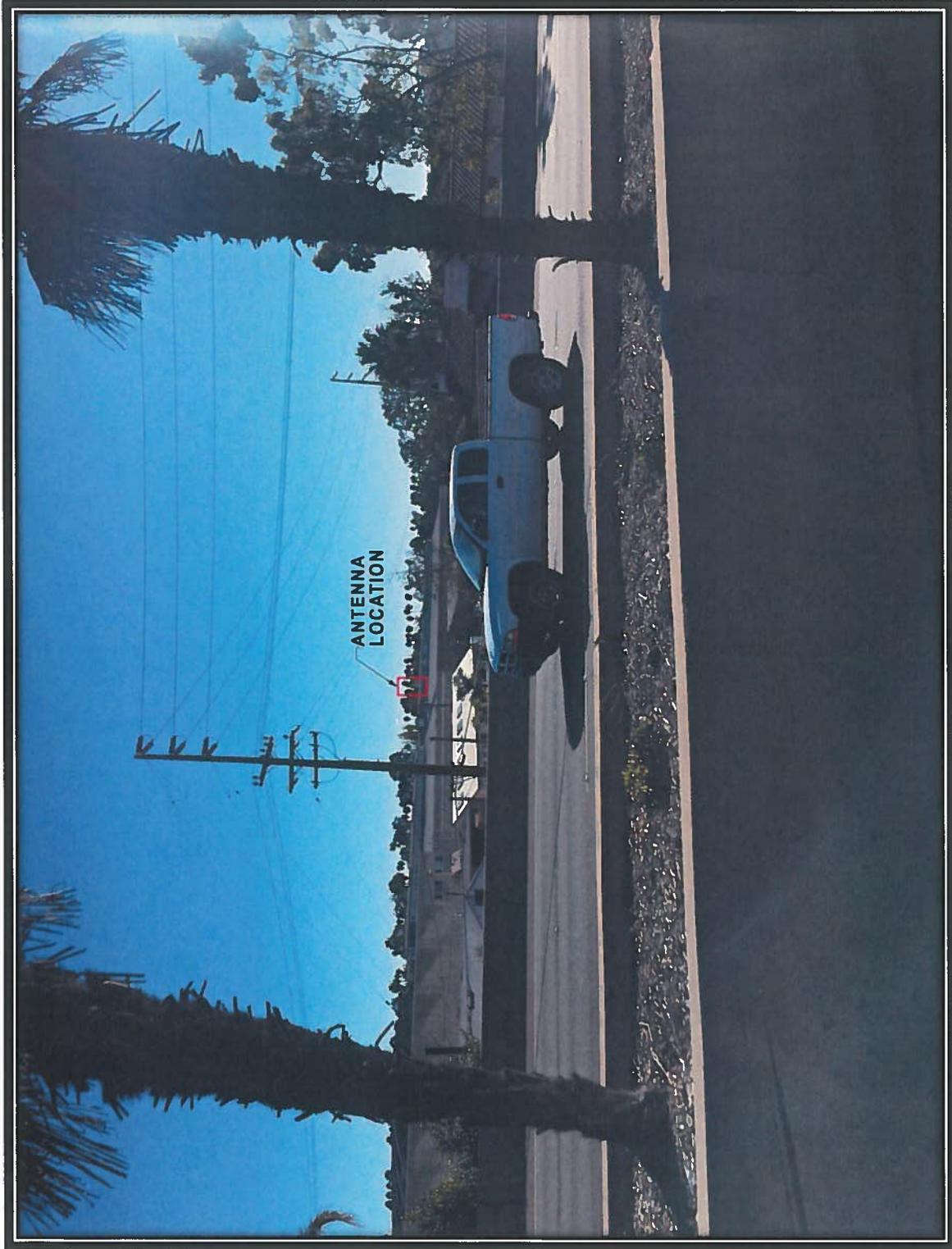
**Visual Simulation No.2:** Looking SW at proposed radio antenna from E. Yanonali Street/Calle Cesar Chavez intersection.



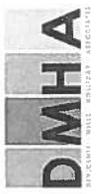
Visual Simulation No.3: Looking west at proposed radio antenna from Calle Cesar Chavez.



Visual Simulation No.4: Looking north at proposed radio antenna from Cabrillo Blvd.



Visual Simulation No.5: Looking south at proposed radio antenna from northbound lane of US 101 Freeway.



14 Calle Cesar Chavez  
Santa Barbara, CA 93103  
www.dmhainc.com

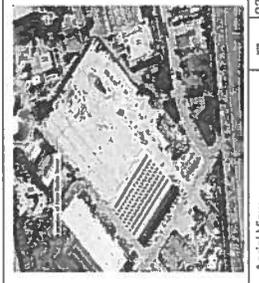
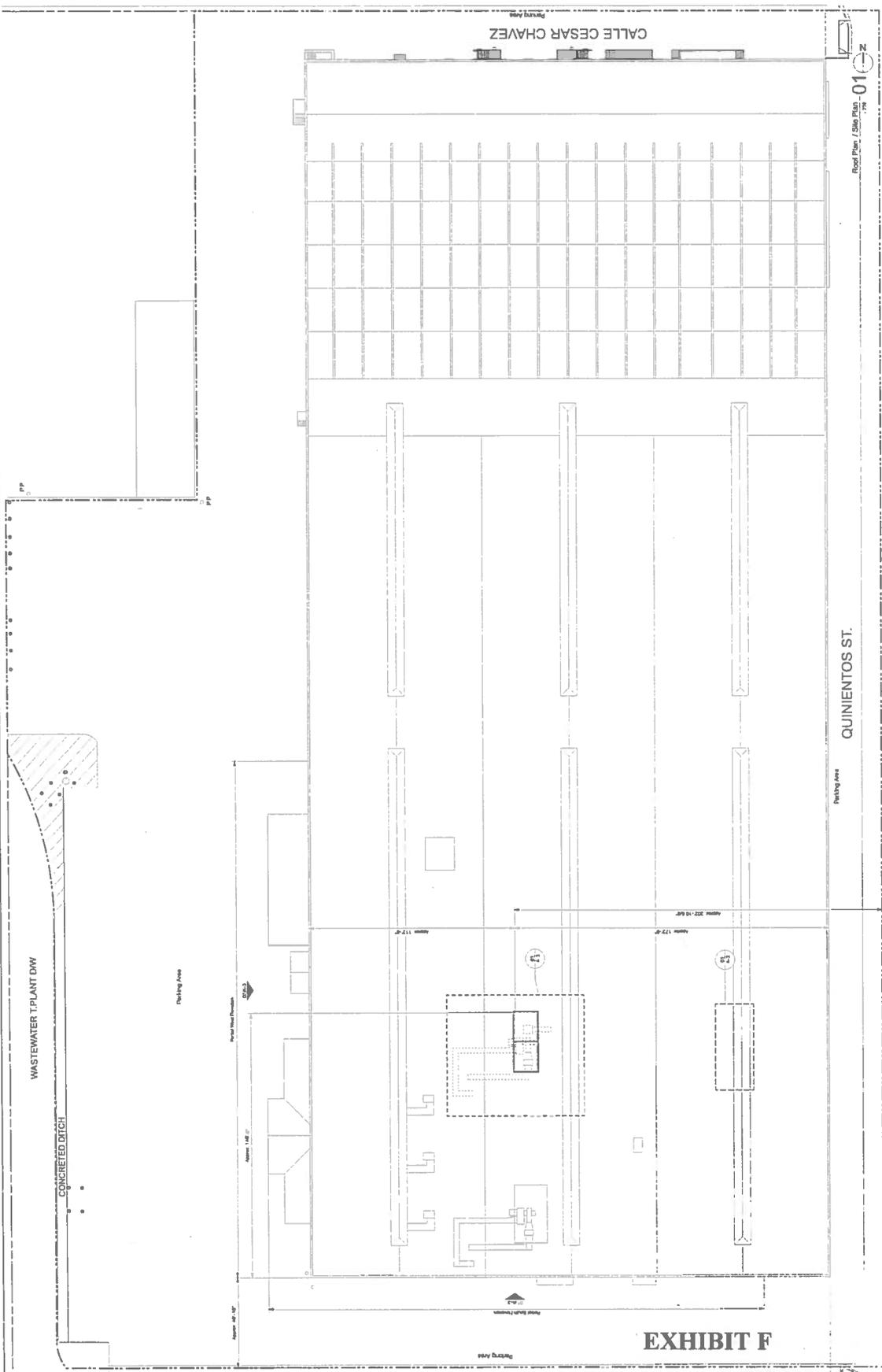
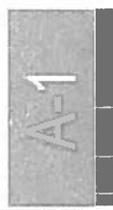


NOT FOR CONSTRUCTION

Celvary Chapel  
Santa Barbara  
Radio Antenna Project  
14, Calle Cesar Chavez, Santa Barbara, CA 93103

NO.	DESCRIPTION	DATE

Roof Plan / Site Plan



**Owner:** Access Investments, LLC  
Carmel, CA 95018

**Trustee:** Celvary Chapel Santa Barbara  
14, Calle Cesar Chavez, Santa Barbara, CA 93103  
Phone: 805.755.1805 x1400  
Fax: 805.755.1805 x1401

**Planning:** David Environmental Consulting  
Santa Barbara, CA 93101  
John Chapman

**Architect:** 14, Calle Cesar Chavez, Suite 102  
Santa Barbara, CA 93103  
Phone: 805.755.1805 x1400  
Project Information: www.celvary.com  
www.dmhainc.com

**Structural:** Van Sledright Structural Consultants  
Santa Barbara, CA 93105  
Phone: 805.963.8891 Fax: 805.963.8892  
www.van-sledright.com

This project involves the approval, design and construction of a building, all in accordance with the applicable codes and regulations of the City of Santa Barbara, California. The project is subject to the building, all in accordance with the applicable codes and regulations of the City of Santa Barbara, California.

**NOTE:** The floor area of the building and/or measured space is not intended to change due to this project.

05	Project Scope of Work
06	Project Directory
04	Aerial View
03	Vicinity Map
02	1:10000





