

Planning Commission Date: March 14, 2007

Item No.

3.

MILPITAS PLANNING COMMISSION AGENDA REPORT

Category: Public Hearing

Report Prepared by: Momo Ishijima

Public Hearing: Yes: No:

Notices Mailed On: 3/2/07

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TITLE: USE PERMIT NO. UP2007-2 AND "S" ZONE AMENDMENT NO. SA2007-3

Proposal: A request for the installation of a T-Mobile wireless telecommunication facility with 8 panel antennas, equipment cabinets and screening on the roof of the Embassy Suites Hotel.

Location: 901 East Calaveras Boulevard

APN: 028 26 001

RECOMMENDATION: Approve with Conditions

Applicant: Sandra Steele, Omnipointe, 1855 Gateway Boulevard, Concord, CA 94520

Property Owner: Felcor/CSS Holdings, L.P., 545 John Carpenter Freeway, Suite 1300, Irving, TX 75062

Previous Action(s): Conditional Use Permit & "S" Zone Approval Amendment

Environmental Info: The proposed project is categorically exempt per Section 15301 (Existing Facilities) of the California Environmental Quality Act (CEQA) Guidelines.

General Plan Designation: Town Center

Present Zoning: TC-S, Town Center with an "S" Zone Overlay

Existing Land Use: Hotel

Agenda Sent To: Applicant and owner as noted above

Attachments: (1) Project plans
(2) Project description, photosimulations, telecommunications questionnaire, RF exposure analysis and site coverage map

PJ#: 2477

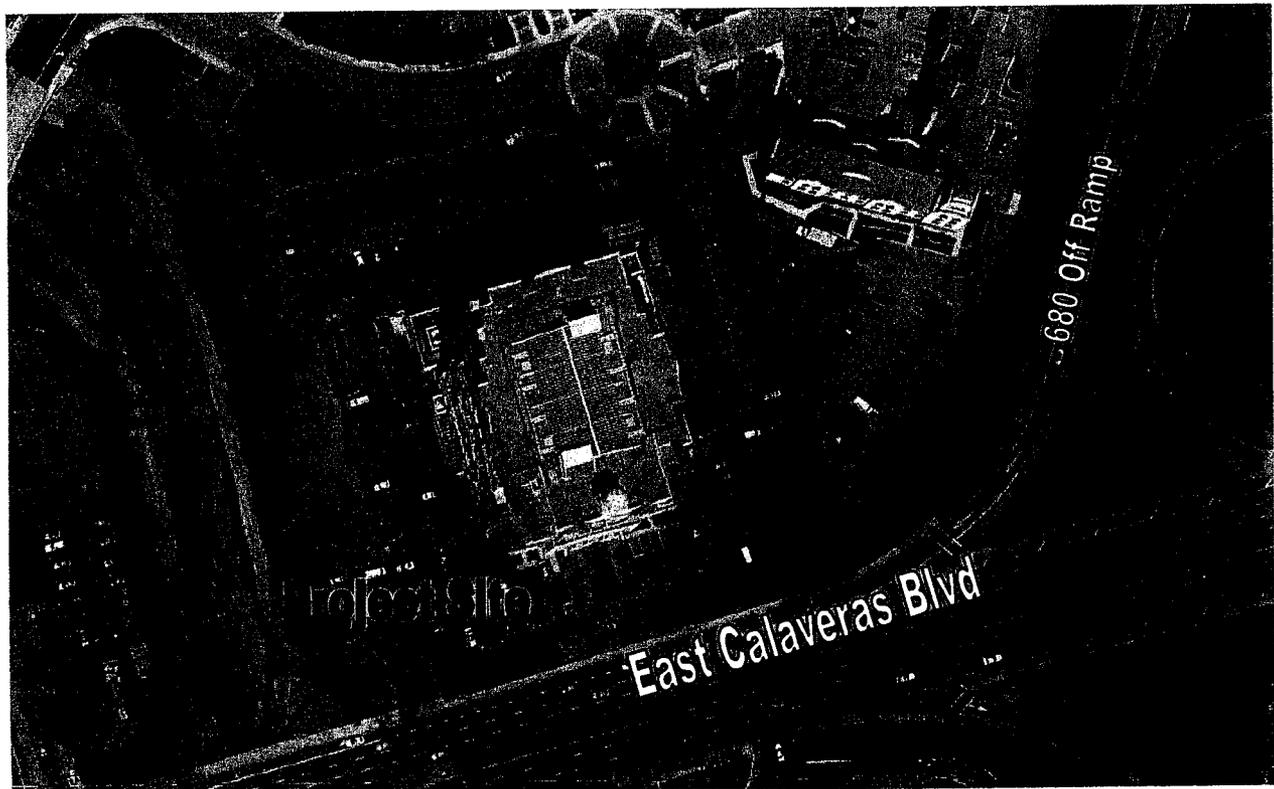
BACKGROUND

In 1984, the Planning Commission approved Conditional Use Permit (No. 644) and “S” Zone (Site and Architectural Review) Approval for a 10-story, 307-room hotel with restaurants and conference rooms. In 1985, the Planning Commission approved an “S” Zone Approval Amendment to modify the height of the hotel to nine (9) stories and 262 rooms. Subsequent approvals include a time extension, as well as “S” Zone Approval Amendments for the construction of a trash enclosure and building signage.

Planning Commission approved a Conditional Use Permit (UP2003-38) and an “S” Zone Approval Amendment (SA2003-120) on November 12, 2003, for the installation of three (3) wireless telecommunications antennas for Metro PCS, associated equipment cabinets and an increase in parapet height by three (3) feet of all four sides of the roof at the Embassy Suites Hotel located at 901 East Calaveras Boulevard.

Site Description

The Embassy Suites Hotel is located on a 5.4-acre parcel northwest of the Interstate 680 State Route 237/Calaveras Boulevard Exit. The hotel is 196,955 square feet and nine (9) stories in height. North of the project site is an office complex and south of project site, across East Calaveras Boulevard is a gasoline station. East of the project site is the Extended Stay America Hotel and west of the project site is Penitencia Creek.



THE APPLICATION

This Conditional Use Permit application is submitted pursuant to Title XI, Chapter 10, Section 57.02-15.1 (Conditional Uses, Additional Uses Permitted – Wireless Communication Facility) of the Milpitas Municipal Code. The “S” Zone Approval Amendment application is submitted pursuant to Section 42 of the Milpitas Municipal Code.

Project Description

The applicant is requesting approval to install a T-Mobile wireless telecommunications facility with eight (8) panel antennas behind a new roof screen and associated equipment cabinets on the roof of the Embassy Suites Hotel. The roof screen will be a modification to the existing parapet in four locations. Sections of the parapet will be cut out to install new roof screens and will be painted and textured to match the existing parapet. The proposal also includes the installation of four (4) equipment cabinets. The equipment cabinets are approximately 6 feet 11 inches in height and are hidden from public view by the parapet, which is 12 feet in height.

The site is unmanned and will only require maintenance access.

Conformance with the Zoning Ordinance

The proposed project is located in the Town Center (TC) zoning district and is permitted with the approval of a Conditional Use Permit. Any approval of a Conditional Use Permit requires that the Planning Commission make the following findings:

1. The proposed use is consistent with the Milpitas Zoning Ordinance.
2. The proposed use is consistent with the Milpitas General Plan.
3. The proposed use, at the proposed location will not be detrimental or injurious to property or improvements in the vicinity nor to the public health, safety, and general welfare.

The proposed project conforms to the Zoning Ordinance. The Zoning Ordinance, Section 57 (57.01(b), 57.02-15.1, and 57.03-5) allows for the proposed use to be approved in this district if it is deemed essential or desirable to the public, suitable to the site, and not detrimental to properties in the vicinity. Section 42 of the Zoning Ordinance allows for new roof screens which complement the existing building material.

As proposed, the telecommunication facility will be suitably screened from the public view and will not detract from the existing design of the building and match existing building materials, colors and styles for the following reasons:

- The proposed 4-foot 6-inch panel antennas will be screened with radio frequency transparent roof parapet cut outs. The roof screening will be textured and painted to match the existing roof parapet.
- The proposed equipment cabinets will be concealed by the existing roof parapet and will not be visible from public view.

The project is consistent with the TC zoning development standards for height and will not increase the site’s Floor Area Ratio (FAR.)

Lastly, the proposed telecommunication facility is desirable to the public because it will provide enhanced coverage for T-Mobile cellular telephone users and increase capacity of the system within the current service area.

Conformance with the General Plan

The project conforms to the General Plan in terms of land use. The proposed use does not conflict with any General Plan Principles and Policies, and is consistent with the following General Plan Guiding Principle and Implementing Policy.

Guiding Principle 2.a-G-1 Maintain a land use program that balances Milpitas' regional and local roles by providing for a highly amenable community environment and a thriving regional industrial center.

Implementing Policy 2.a-I-3 Encourage economic pursuits which will strengthen and promote development through stability and balance.

Comment: The proposed project is consistent with Guiding Principle 2.a-G-1 in that the new telecommunications facility will improve and expand telecommunications services by filling in a gap in the T-Mobile network in the area and on Interstate 680. The proposed project is consistent with Implementing Policy 2.a-I-3 in that the project encourages economic pursuits that strengthen and promote development through stability and balance. The project will improve coverage and service capacity that mutually benefits residents and businesses within the City.

Neighborhood Compatibility

The project is situated in an area consisting of mainly hotels and office uses. The nearest residential development is approximately 400 feet away. The project utilizes an appropriate stealth design that conceals antennas and associated equipment on the roof of the hotel that does not detract from the existing exterior façade.

Radio Frequency Emissions

Federal law preserves the City's authority to regulate the placement, construction, and modification of personal wireless service facilities (47 U.S.C. 332 (c)(7)(A).) However, federal law does impose a limitation on this authority in the area of radio frequency (RF) emissions. The City is prohibited by federal law from regulating the placement, construction and modification of personal wireless service facilities on the basis of the environmental effects of RF emission to the extent the facility comply with the Federal Communications Commission's (FCC) regulations concerning such emissions. (47 U.S.C. 332 (c)(7)(b)(iv).)

The FCC has established guidelines that place limits on human exposure to RF fields generated by personal wireless service facilities. These guidelines have been endorsed by the United States Environmental Protection Agency and the Food and Drug Administration. The FCC requires that all personal wireless facilities comply with these guidelines.

To verify if the proposed project complies with the FCC guidelines, a power density report was required as part of this application. This report is reviewed by the City's Telecommunications Advisory Commission to ensure compliance with the FCC guidelines. In the event that the

proposed project is not in compliance with the FCC guidelines, the City has the ability to require appropriate modifications to the facility to ensure compliance with FCC guidelines.

Conformance with CEQA

The proposed project is categorically exempt from further environmental review pursuant to Section 15301 (“Existing Facilities”) of the California Environmental Quality Act (CEQA) Guidelines.

Telecommunications Advisory Commission Review

The City of Milpitas Telecommunications Advisory Commission reviewed this project on February 26, 2007. The comments and concerns raised were regarding if the proposed installation was a new technology or similar to other installations previously approved in the City of Milpitas. The Telecommunications Advisory Commission recommended approval of the proposal to the Planning Commission.

RECOMMENDATION

Close the Public Hearing. Approve Use Permit No. UP2007-2 and “S” Zone Approval Amendment No. SA2007-3 based on the Findings and Special Conditions of Approval listed below.

FINDINGS

1. As conditioned, the proposed antennas at this location will not be detrimental or injurious to the surrounding development nor to the public health and safety, as reviewed by the Telecommunications Advisory Commission in regards to equipment and safety issues.
2. As conditioned, the proposed use meets the intent of the City of Milpitas General Plan and Zoning Ordinance by providing for expanded telecommunications services for the conduct of commercial and personal business without creating aesthetic disharmony at the site or impacts on surrounding development.
3. As conditioned, the project will not result in any significant visual or aesthetic impacts because the proposed antenna and equipment are suitably concealed and associated electronic cabinets are screened from view and therefore will not be visible from surrounding areas.
4. The proposed project is categorically exempt from further environmental review pursuant to Section 15301 (“Existing Facilities”) of the California Environmental Quality Act (CEQA) Guidelines.

SPECIAL CONDITIONS

1. This Use Permit No. UP2007-2 and “S” Zone Amendment No. SA2007-3 approval is for an approval to install a T-Mobile wireless telecommunications facility with eight (8) panel antennas behind a new roof screen and associated equipment cabinets on the roof of the Embassy Suites Hotel as shown on the approved plans dated March 14, 2007, except as may be otherwise modified by these conditions of approval. Any expansion or change in nature of

the operation shall require review and approval by the Planning Commission of an amendment to this Use Permit. Minor changes as per Section 42 of the Milpitas Zoning Ordinance, to approved plans may be approved by the Planning Division staff. (P)

2. Any change in any dimension or location of the proposed antenna, cabinets, and enclosure from that shown on the plans approved March 14, 2007, shall require an amendment to this Use Permit, which will require a noticed public hearing. (P)
3. This use shall be conducted in compliance with all appropriate local, state and federal laws and regulations and in conformance with the approved plans. (P)
4. If at the time of application for a building permit, there is a project job account balance due to the City for recovery of review fees, review of permits will not be initiated until the balance is paid in full. (P)
5. It is the responsibility of the applicant to obtain any necessary permits or approvals from affected agencies or private parties. Copies of any approvals or permits must be submitted to the City of Milpitas Engineering Division. (E)
6. Prior to building permit issuance, applicant must pay all applicable development fees, including but not limited to plan check and inspection deposit, and 2.5% building permit automation fee. (E)
7. The U.S. Environmental Protection Agency (EPA) has empowered the San Francisco Bay Regional Water Quality Control Board (RWQCB) to administer the National Pollution Elimination Discharge System (NPDES) permit. The NPDES permit requires all dischargers to eliminate as much as possible pollutants entering our receiving waters. Contact the RWQCB for questions regarding your specific requirements at (800) 794-2482. For general information, contact the City of Milpitas at (408) 586-3329. (E)
8. The Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) under the National Flood Insurance Program shows this site to be in Flood Zone "X". (E)
9. If hazardous materials are intended to be stored (backup battery system included), transported on site, used or handled, in an amount requiring a permit, a Hazardous Materials Business Plan (HMBP) shall be submitted to the Fire Department by the business responsible. If hazardous materials are not intended to be stored, transported on site, used or handled in an amount requiring a permit, a Hazardous Materials/Waste Registration Form and/or a Hazardous Materials Exemption Declaration shall be submitted to the Fire Department by the business responsible. Submittal shall be done at the time of building permit application. No final inspection to all or any portion of the development shall be deemed complete and no certificate of occupancy shall be issued until this requirement has been met. CFC Section 105.4 as amended by Section V-300-2.01 MMC. (F)

10. The telecom site shall comply with the following requirements:

- a. Approved access shall be provided to the equipment. Verify KNOX lock (quantity and location to be determined by the Fire Dept. if none exists) for Fire Department access. CFC (California Fire Code) Section 902.4.
- b. Equipment shall be posted with signage identifying the company name and the site identification number.
- c. The location shall be labeled for the hazard with a sign approved for location and content by the Fire Department. Signage shall conform to the NFPA 704 standards.
- d. Each antenna shall be identified to denote its function, i.e., transmitter or receiver antenna when located on roof structures or other places subject to close proximity to humans.
- e. Shutdown of transmitter antenna(s) shall be provided. Written shutdown procedures (including remote shutdown) shall be provided to the Milpitas Fire Department Inspector at the time of inspection. Fire Department inspection shall include system shutdown.
- f. For remote shutdown process, the phone number, the specific SITE I.D. number shall be posted outside of the equipment enclosure, on the face of the wireless equipment cabinet, at the electrical equipment (if different location than the wireless equipment), roof hatch, fire control, and other access points to the transmitter antennae.
- g. If manual shutdown mechanism is located on site, the shutdown mechanism shall be identified.
- h. Prior to final permit signoff, the installer shall call for an inspection by the Fire Department to verify labeling, signage and transmission shutdown.

Planning Division = (P)

Engineering Division = (E)

Fire Department = (F)



RECEIVED

JAN 05 2007

**CITY OF MILPITAS
PLANNING DIVISION**

PROJECT DESCRIPTION

T-Mobile is a telecommunications carrier with a growing network in the Bay Area. With its growing number of customers, the necessity exists to provide more robust coverage. In order to provide enhanced services to benefit the residents of Milpitas as well as those working in Milpitas, T-Mobile proposes to install a base station at the Embassy Suites located at 901 E. Calaveras Blvd. The facility will consist of:

1. Equipment cabinets located within a 8' x 25' area on the southeast side of the roof, reaching a height of approximately 6'11" above the roofline, but screened from public views by the existing parapet; and,
2. Eight (8) panel antennas, each measuring 54.5" (h) x 12.5" (w) x 3.5" (d), installed behind radio frequency transparent roof parapet cut outs.

The facility is completely "stealthed". The equipment cabinets will be hidden from view by an existing parapet façade. The antennas will be concealed by removing portions of the existing parapet and replacing the parapet with radio frequency transparent material painted and textured to match. T-Mobile will run all coaxial cables on the roof and power and telephone lines within the hotel so as to completely mitigate any visual impacts.

The site will be unmanned and will only require monthly service visits.

SITE SELECTION AND REJECTION

T-Mobile considered two other sites as well which were rejected. Collocation with Nextel on a monopole across Calaveras Blvd. from Embassy Suites was one option that was disfavored by planning staff. A faux light standard at the Milpitas Sports Center at 1325 E. Calaveras Blvd. was also considered, but repeated calls to staff there were not returned.

T-MOBILE REPRESENTATIVE

If there are any questions regarding this T-Mobile proposal, please do not hesitate to contact Sandra Steele at 415.573.7400 or SSteele@permitme.net

City of Milpitas
Planning Division
455 E. Calaveras Blvd.
Milpitas, CA 95035
(408) 586-3279

Questionnaire for Telecommunication Facility Providers

All applicants requesting to install telecommunications facilities within the City of Milpitas must complete this questionnaire as part of their use permit application submittal.

Applicant Name: T-MOBILE (by SANDRA STEELE)

Applicant Address: 1855 GATEWAY BLVD, STE. 900 CONCORD, CA 94520

Applicant Phone: 415-573-7400 (MOBILE)

Applicant Fax and e-mail address: SSTEEL@PERMITME.NET 415-520-0102 (FAX)

Provide a brief description of project (Telecommunications Facility): Six panel antennas inside new RF screened cut-outs in existing roof parapets. Equipment cabinets also on roof. See attached Project Description.

Location of Project: 901 E. CALVERAS BLVD.

1. Please indicate below the frequency range you plan to use?

- VHF Low-Band (30-50 Mhz or 72-76 Mhz)
- VHF High-Band (136-174 Mhz or 220-222 Mhz)
- UHF or T-Band (406-420 Mhz or 450-470 Mhz or 470-512 Mhz)
- 800 or 900 Mhz Band (800-960 except 900 Mhz Spread Spectrum)
- 900 Mhz Spread Spectrum (902-928 Mhz)
- Other than specified above (State frequency band in Mhz). Describe: Transmit frequency: 1850-1870; Receive frequency: 1950-1990

2. Please indicate below the channel/system proposed for use?

- A single channel
- Multiple channel
- A frequency agile system
- A spread spectrum system
- Other than specified above. Describe: _____

3. Please indicate below the frequency range you plan to use?

- Narrow band (± 5 Khz or less deviation)
- Broad band (greater than ± 5 Khz deviation)
- Spread Spectrum
- Other than specified above. Describe: _____

4. What will be the effective radiated power (ERP) be when all channels at your proposed site are radiating? 342 watts Will the site be in compliance with current ANSI radiation health standards? YES
5. What horizontal radiation pattern is planned for this project?
- Omnidirectional
- Sectored
- Directional (provide half power beam width) _____
6. What will the vertical radiation angle (half power beam width) be for your proposed antenna(s)? 70
7. How high above the local terrain (e.g., surrounding structures) will the center of radiation of your proposed antenna(s) be? 95'3" ± 88'5" feet
8. How close to your proposed project is the nearest roadway ~71 feet/miles and, if elevated, what is the roadway's height above the local terrain? 0 feet
9. How close to your proposed project is the nearest regularly occupied building and how high is the top floor above local terrain? Subject building (hotel) - 92'10" to top of parapet
10. What is the distance to the nearest existing radio communications or broadcast antenna(s) if less than 1/2 mile? ~1/8 feet/miles. Answer question 1 for such existing antenna(s) and identify owner/operator, if known.
Nextel Communications monopole at approx. 855 MHz.
11. What is the status of your FCC license grant? ACTIVE
(Include a *copy of the license with submittal of this questionnaire.)

NOTE: The below listed items are required by the applicant as part of this submittal:

- a) Provider's build-out map* showing all sites anticipated within Milpitas (see question no. 2) Forthcoming
- b) Photo simulations** of antenna(s) as viewed from at least three surrounding view points. Show "worst case" vantage points.
- c) List of all sites that were investigated** for a particular search ring and the reasons why they were discarded. Include names and phone numbers of persons contacted regarding potential sites.
- d) Copy of applicants Power Density Study* (see item no. 4). Forthcoming

* 20 copies (Telecommunication Commission)

** 35 copies (Telecommunication Commission & Planning Commission)

Back of
Telecommunication Questionnaire



Federal Communications Commission

Wireless Telecommunications Bureau

Radio Station Authorization

Call Sign: KNLG833	File Number: 0000094516	Print Date: 03/17/2000
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Name of Licensee:

Attention: Dan Menser
 VoiceStream PCS BTA I License Corporation
 3650 131 Avenue S.E., Ste. 200

BELLEVUE WA 98006

Market Number: BTA404	Channel Block: E	Sub-Market Designator: 0
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Market Name: San Francisco-Oakland-San Jose, CA

The license hereof is authorized, for the period indicated, to operate a radio transmitting station in accordance with the terms and conditions hereinafter described. This authorization is subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts of Congress, international treaties and agreements to which the United States is a signatory, and all pertinent rules and regulations of the Federal Communications Commission, contained in Title 47 of the code of Federal Regulations.

Effective Date	1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date	Expiration Date
04/28/1997	04/28/2002	04/28/2007			04/28/2007

Conditions:

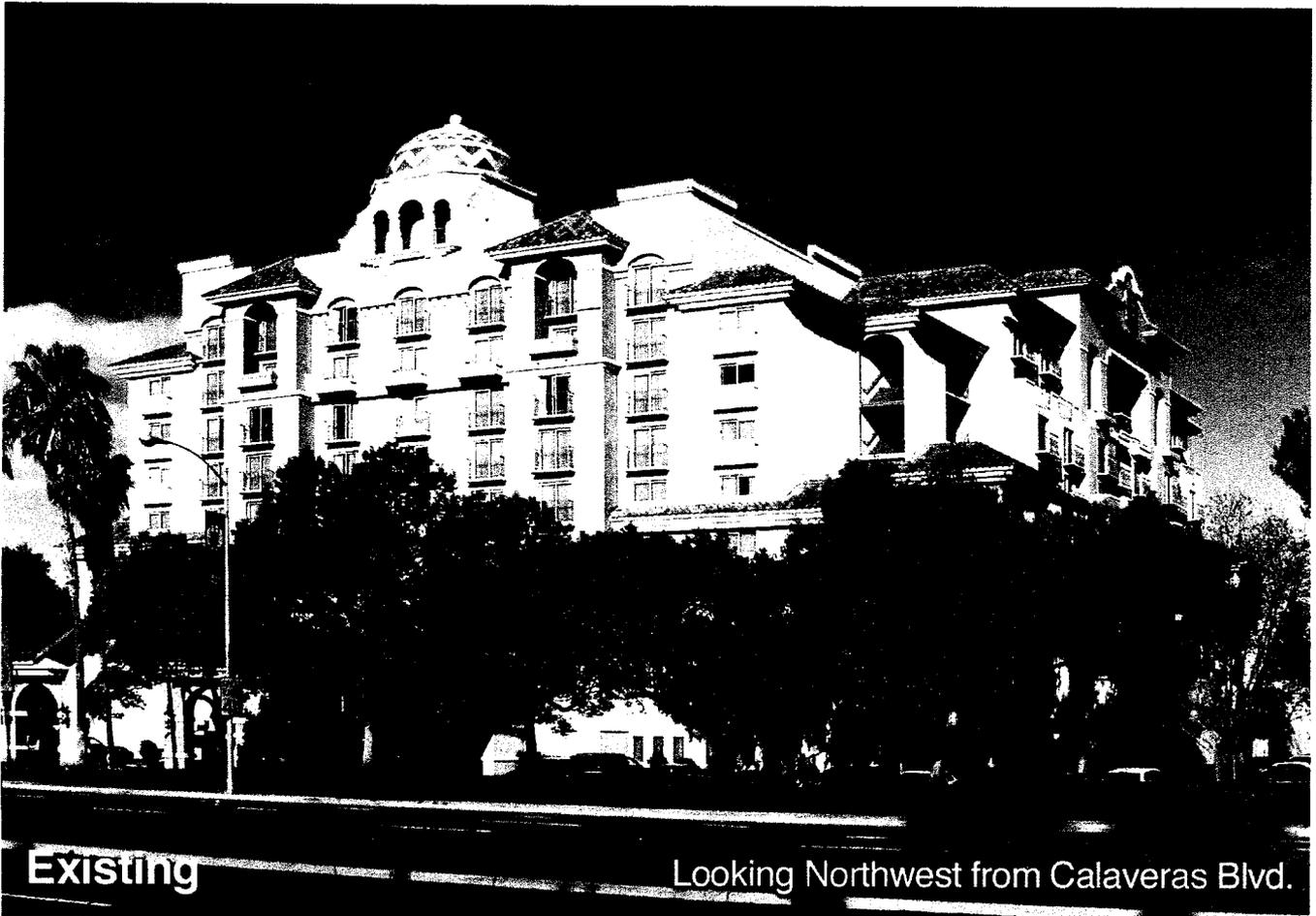
Pursuant to Section 309(h) of the Communications Act of 1934, as amended, (47 U.S.C. 309(h)), this license is subject to the following conditions: This license does not vest in the licensee any right to operate a station nor any right in the use of frequencies beyond the term thereof nor in any other manner then authorized herein. Neither this license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended, 47 U.S.C. 151, et seq. This license is subject in terms to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended, 47 U.S.C. 606.

Special Conditions:

This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

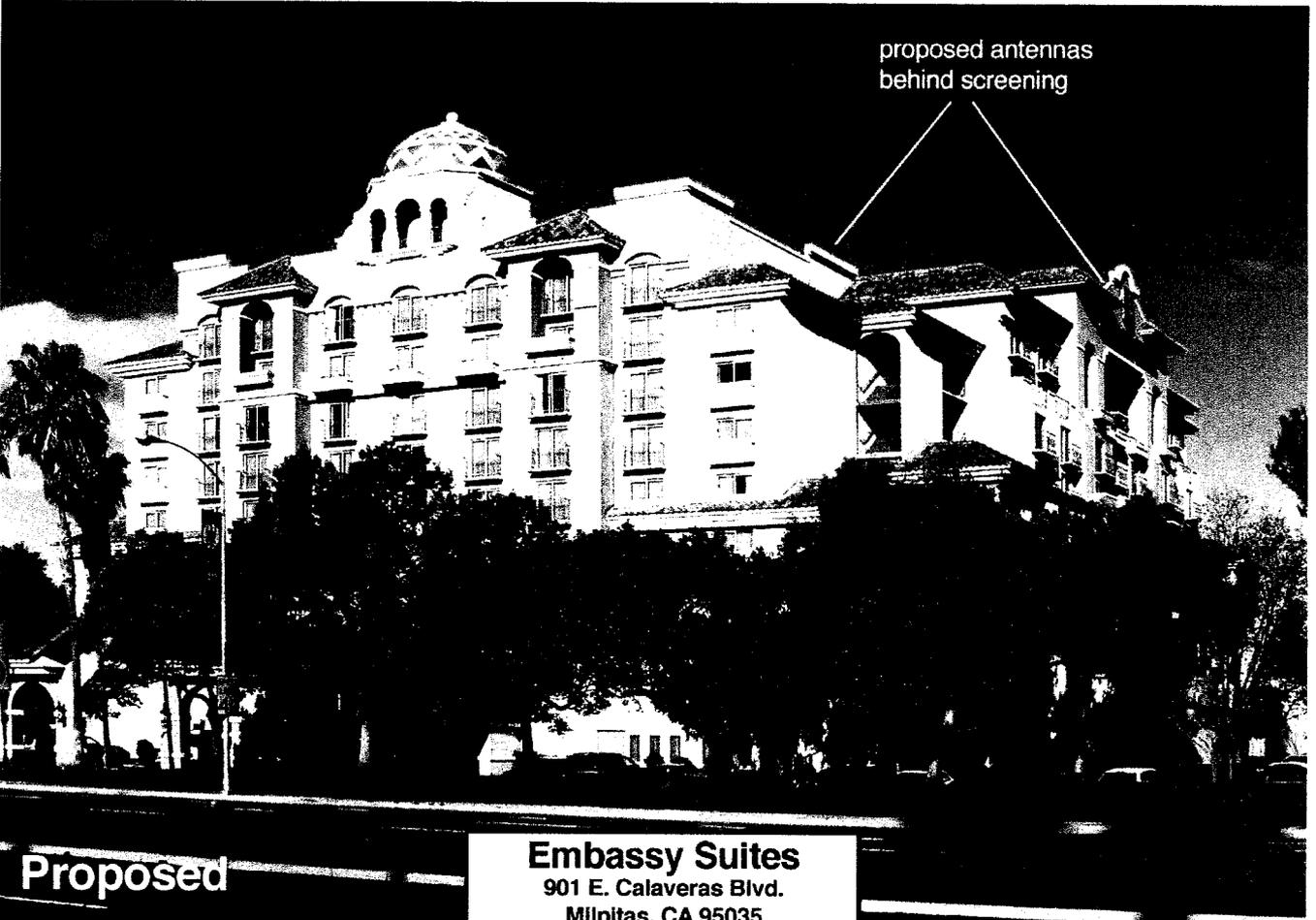
This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

A graphical representation of the geographic area authorized to this call sign may be generated by selecting 'License Search' at the following web address: <http://wtbwww05.fcc.gov>



Existing

Looking Northwest from Calaveras Blvd.



proposed antennas
behind screening

Proposed

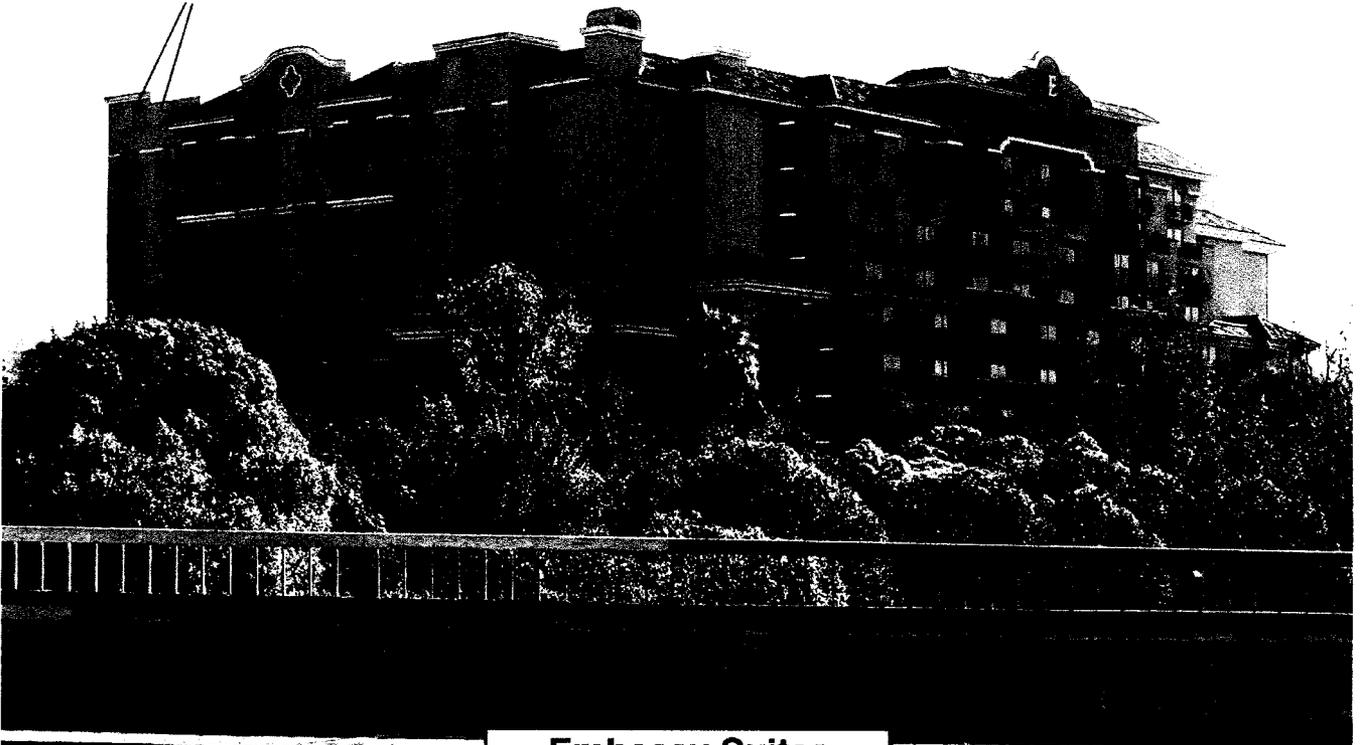
Embassy Suites
901 E. Calaveras Blvd.
Milpitas, CA 95035
Site # SF-24552



Existing

Looking Southeast from North Hillview Drive

proposed antennas
behind screening



Proposed

Embassy Suites
901 E. Calaveras Blvd.
Milpitas, CA 95035
Site # SF-24552

Revised Questionnaire

City of Milpitas
Planning Division
455 E. Calaveras Blvd.
Milpitas, CA 95035
(408) 586-3279

Questionnaire for Telecommunication Facility Providers

All applicants requesting to install telecommunications facilities within the City of Milpitas must complete this questionnaire as part of their use permit application submittal.

Applicant Name: Sandra Steele for T-Mobile

Applicant Address: 855 Gateway Blvd. Ste. 900, Concord, CA 94520

Applicant Phone: (415) 573-7400

Applicant Fax and e-mail address: (415) 520-0102; ssteele@permitme.net

Provide a brief description of project (Telecommunications Facility): Installation of a new wireless telecommunications facility for the T-Mobile network. This would be a collocation site including six antennas located behind new RF transparent screening located in the existing roof parapet. The associated equipment would also be located on the roof-top. This installation would be screened from public view.

Location of Project: 901 East Calaveras Blvd.

1. Please indicate below the frequency range you plan to use?

- VHF Low-Band (30-50 Mhz or 72-76 Mhz)
- VHF High-Band (136-174 Mhz or 220-222 Mhz)
- UHF or T-Band (406-420 Mhz or 450-470 Mhz or 470-512 Mhz)
- 800 or 900 Mhz Band (800-960 except 900 Mhz Spread Spectrum)
- 900 Mhz Spread Spectrum (902-928 Mhz)
- Other than specified above (State frequency band in Mhz). Describe: Transmit Frequency: 1850-1870; Receive Frequency: 1950-1990

2. Please indicate below the channel/system proposed for use?

- A single channel
- Multiple channel
- A frequency agile system
- A spread spectrum system
- Other than specified above. Describe: _____

3. Please indicate below the frequency range you plan to use?

- Narrow band (± 5 Khz or less deviation)
- Broad band (greater than ± 5 Khz deviation)
- Spread Spectrum
- Other than specified above. Describe: _____

4. What will be the effective radiated power (ERP) be when all channels at your proposed site are radiating? 342 Watts. Will the site be in compliance with current ANSI radiation health standards? Yes
5. What horizontal radiation pattern is planned for this project?
 - Omnidirectional
 - Sectored
 - Directional (provide half power beam width) _____
6. What will the vertical radiation angle (half power beam width) be for your proposed antenna(s)?
7°
7. How high above the local terrain (e.g., surrounding structures) will the center of radiation of your proposed antenna(s) be? 95.3 & 88.5 feet
8. How close to your proposed project is the nearest roadway approx. 71 feet and, if elevated, what is the roadway's height above the local terrain? 0 feet
9. How close to your proposed project is the nearest regularly occupied building and how high is the top floor above local terrain? Subject building (hotel)
10. What is the distance to the nearest existing radio communications or broadcast antenna(s) if less than ½ mile? Approx. one eighth of a mile. Answer question 1 for such existing antenna(s) and identify owner/operator, if known.
Nextel Communications Monopole at approx 855 Mhz.
11. What is the status of your FCC license grant? Active
(Include a *copy of the license with submittal of this questionnaire.)
12. Will this antenna application require an enclosure for the equipment? No
13. If the antennas are concealed will the applicant placard the access point with a 24/7 company contact telephone number and be placed at the access point and fire control panel? Yes

NOTE: The below listed items are required by the applicant as part of this submittal:

- a) Provider's build-out map* showing all sites anticipated within Milpitas (see question no. 2)
- b) Photo simulations** of antenna(s) as viewed from at least three surrounding view points. Show "worst case" vantage points.
- c) List of all sites that were investigated** for a particular search ring and the reasons why they were discarded. Include names and phone numbers of persons contacted regarding potential sites.
- d) Copy of applicants Power Density Study* (see item no. 4).

* 20 copies (Telecommunication Commission)

** 35 copies (Telecommunication Commission & Planning Commission)

**T-Mobile • Proposed Base Station (Site No. SF24552)
901 East Calaveras Boulevard • Milpitas, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of T-Mobile, a personal wireless telecommunications carrier, to evaluate the base station (Site No. SF24552) proposed to be located at 901 East Calaveras Boulevard in Milpitas, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission (“FCC”) evaluate its actions for possible significant impact on the environment. In Docket 93-62, effective October 15, 1997, the FCC adopted the human exposure limits for field strength and power density recommended in Report No. 86, “Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements (“NCRP”). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent Institute of Electrical and Electronics Engineers (“IEEE”) Standard C95.1-2005, “Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” includes similar exposure limits. A summary of the FCC’s exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Personal Wireless Service	Approx. Frequency	Occupational Limit	Public Limit
Personal Communication (“PCS”)	1,950 MHz	5.00 mW/cm ²	1.00 mW/cm ²
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio	855	2.85	0.57
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called “radios” or “channels”) that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables about 1 inch thick. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward

**T-Mobile • Proposed Base Station (Site No. SF24552)
901 East Calaveras Boulevard • Milpitas, California**

the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 attached describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by T-Mobile, including drawings by Gemini Consulting Group, dated December 22, 2006, it is proposed to mount eight RFS Model APX16DWV-16DWV directional PCS antennas behind screens to be set in the roof parapet of the multi-story Embassy Suites Hotel, located at 901 East Calaveras Boulevard in Milpitas. The antennas would be mounted with 2° downtilt at effective heights of at least 87 feet above ground, and would be oriented in pairs toward 30°T, 110°T, 240°T, and 310°T. The maximum effective radiated power in any direction would be 2,400 watts, representing the simultaneous operation of six channels at 400 watts each.

Presently installed above the roof are similar antennas for use by MetroPCS, another wireless communications carrier. Metro reports that it has installed Andrew Model RR65-17-02DPL directional PCS antennas at an effective height of about 87 feet above ground and operates with a maximum effective radiated power in any direction of 1,890 watts, representing the simultaneous operation of six channels at 315 watts each.

Study Results

For a person anywhere at ground, the maximum ambient RF exposure level due to the proposed T-Mobile operation by itself is calculated to be 0.00056 mW/cm², which is 0.056% of the applicable public exposure limit. The maximum calculated cumulative level at ground for the simultaneous operation of both carriers is 0.14% of the public limit; the maximum calculated cumulative level at any nearby building* is 0.41% of the public exposure limit. It should be noted that these results

* Located about 185 feet away, based on aerial photographs from Terraserver.



**T-Mobile • Proposed Base Station (Site No. SF24552)
901 East Calaveras Boulevard • Milpitas, California**

include several “worst-case” assumptions and therefore are expected to overstate actual power density levels. Power density levels may exceed the public limit in areas on the sloped roof of the subject building near the antennas.

Recommended Mitigation Measures

Due to their mounting locations, the T-Mobile antennas are not accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within 3 feet directly in front of the T-Mobile antennas themselves, such as might occur during building maintenance work, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Posting explanatory warning signs[†] at the roof access door and on the screens in front of the antennas, such that the signs would be readily visible from any angle of approach to persons who might need to work within that distance, would be sufficient to meet FCC-adopted guidelines. Similar measures should already be in place for the other carrier at the site; applicable keep-back distances have not been determined as part of this study.

Conclusion

Based on the information and analysis above, it is the undersigned’s professional opinion that the base station proposed by T-Mobile at 901 East Calaveras Boulevard in Milpitas, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations. Posting of explanatory signs is recommended to establish compliance with occupational exposure limitations.

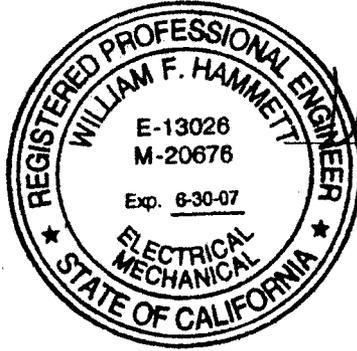
[†] Warning signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.



**T-Mobile • Proposed Base Station (Site No. SF24552)
901 East Calaveras Boulevard • Milpitas, California**

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2007. This work has been carried out by him or under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



William F. Hammett

William F. Hammett, P.E.

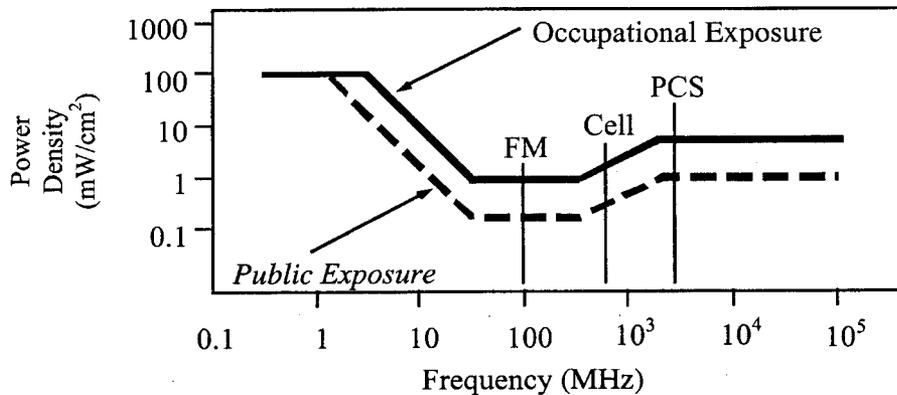
February 23, 2007

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission (“FCC”) to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, “Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements, which are similar to the more recent Institute of Electrical and Electronics Engineers Standard C95.1-2005, “Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.” These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency Applicable Range (MHz)	Electromagnetic Fields (<i>f</i> is frequency of emission in MHz)					
	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm ²)	
0.3 – 1.34	614	<i>614</i>	1.63	<i>1.63</i>	100	<i>100</i>
1.34 – 3.0	614	<i>823.8/f</i>	1.63	<i>2.19/f</i>	100	<i>180/f²</i>
3.0 – 30	1842/f	<i>823.8/f</i>	4.89/f	<i>2.19/f</i>	900/f ²	<i>180/f²</i>
30 – 300	61.4	<i>27.5</i>	0.163	<i>0.0729</i>	1.0	<i>0.2</i>
300 – 1,500	3.54√ <i>f</i>	<i>1.59√f</i>	√ <i>f</i> /106	<i>√f/238</i>	<i>f/300</i>	<i>f/1500</i>
1,500 – 100,000	137	<i>61.4</i>	0.364	<i>0.163</i>	5.0	<i>1.0</i>



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission (“FCC”) to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications cell sites. The near field zone is defined by the distance, D, from an antenna beyond which the manufacturer’s published, far field antenna patterns will be fully formed; the near field may exist for increasing D until some or all of three conditions have been met:

$$1) D > \frac{2h^2}{\lambda} \qquad 2) D > 5h \qquad 3) D > 1.6\lambda$$

where h = aperture height of the antenna, in meters, and
λ = wavelength of the transmitted signal, in meters.

The FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives this formula for calculating power density in the near field zone about an individual RF source:

$$\text{power density } S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}, \text{ in mW/cm}^2,$$

where θ_{BW} = half-power beamwidth of antenna, in degrees, and
 P_{net} = net power input to the antenna, in watts.

The factor of 0.1 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates distances to FCC public and occupational limits.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

$$\text{power density } S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}, \text{ in mW/cm}^2,$$

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.





T-Mobile®

1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA. 94520

SF-24552 EMBASSY SUITES

RECEIVED
JAN 05 2007
CITY OF MILPITAS
PLANNING DIVISION

Δ	DATE	DESCRIPTION	REV
	12/22/06	100% ZD'S	1

OMNIPOINT
DBA
T-Mobile®
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA. 94520



EMBASSY SUITES
SF-24552
901 E. CALAVERAS
MILPITAS, CA. 95035



16133 VENTURA BLVD #600, ENGINO, CA 91436
EMAIL: DONGEMINI@CONSULTINGGROUP.COM
PHONE: (818) 312-7885 FAX: (818) 354-7083

SHEET TITLE:
TITLE SHEET &
PROJECT INFORMATION

T-1

SHEET INDEX

- T-1 TITLE SHEET, PROJECT INFORMATION
- T-2 GENERAL NOTES
- C-1 TOPO SUEVEY
- A-1 EXISTING OVERALL SITE PLAN
- A-2 PROPOSED OVERALL SITE PLAN
- A-3 PROPOSED ANTENNA & EQUIPMENT PLANS
- A-4 EXISTING AND PROPOSED NORTH & EAST ELEVATIONS
- A-5 EXISTING AND PROPOSED WEST ELEVATIONS
- D-1 DETAIL SHEET

CODE COMPLIANCE

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

1. CALIFORNIA BUILDING CODE CBC-2001
2. CALIFORNIA ADMINISTRATIVE CODE CPC-2001
3. ANS/EIA-222-F LIFE SAFETY CODE
4. NFPA-101-1997
5. CALIFORNIA ELECTRICAL CODE CEC-2001
6. CALIFORNIA MECHANICAL CODE CMC-2001
7. CALIFORNIA PLUMBING CODE CPC-2001
8. LOCAL BUILDING CODE(S)
9. CITY AND/OR COUNTY ORDINANCES
10. MUST COMPLY TO 2001 CALIFORNIA FIRE CODE.

PROJECT INFORMATION

APPLICANT/LESSEE
T-MOBILE
1855 GATEWAY BOULEVARD SUITE 900
CONCORD, CALIFORNIA 94520
CONTACT: LISA NAHMANSON
TELEPHONE: (415) 756-6040

PLANNING PROJECT TEAM
T-MOBILE
1855 GATEWAY BOULEVARD SUITE 900
CONCORD, CA. 94520
CONTACT: LISA NAHMANSON
TELEPHONE: (415) 756-6040

DESIGN TEAM
GEMINI CONSULTING GROUP
16133 VENTURA BLVD. #600
ENGINO, CALIFORNIA 91436
CONTACT: RUSSELL MIX
TELEPHONE: (916) 869-2865
E-MAIL: russell@geminiconsultinggroup.com
F-FAX: (661) 564-7093

PROPERTY OWNER:
NAME: - FELCOR/CSS HOLDINGS,
L.P. C/O SPECTRASITE
ADDRESS: - 545 E. JOHN CARPENTER
FREEWAY, SUITE 1300
IRVINE, TX, 75062
CONTACT: - TOM GARCIA
PHONE: (323) 908-0777
A.P.N.: 028-26-001

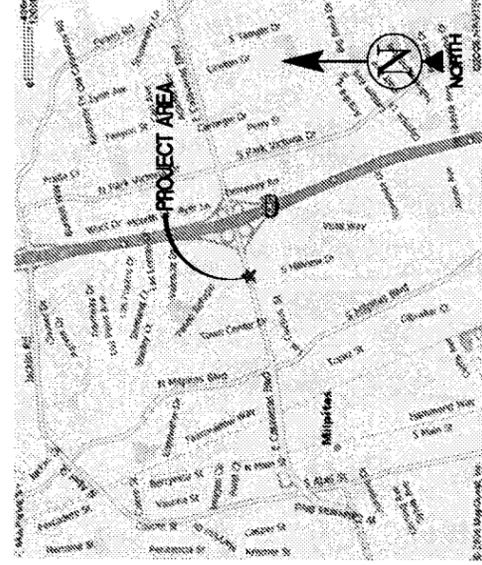
PROPERTY INFORMATION
SITE NAME: EMBASSY SUITES
SITE NUMBER: SF-24552
SITE ADDRESS: 901 E. CALAVERAS BLVD.
MILPITAS, CA. 95035
JURISDICTION: CITY OF MILPITAS, CA.

GEODETIC COORDINATES
NAD83 DATUM
LATITUDE: 37°14'52.4"N
LONGITUDE: 121°57'25.1"W

LEGAL DESCRIPTION

HANDICAP REQUIREMENTS
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
HANDICAPPED ACCESS AND REQUIREMENTS NOT REQUIRED,
IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE,
PART 2, TITLE 24, SECTION 110568.3.42, EXCEPTION 1.

VICINITY MAP



DIRECTIONS FROM T-MOBILE

TAKE CLAYTON RD TO CA-242 SOUTH
MERGE ONTO I-680 SOUTH
TAKE CALAVERAS BLVD EXIT
TURN RIGHT ON E. CALAVERAS BLVD.
ARRIVE AT 901 E. CALAVERAS BLVD. ON THE RIGHT

SITE ENVIRONMENTAL INFORMATION

NUMBER OF BITS UNITS HAVING BATTERIES: 1
NUMBER OF BATTERIES IN EACH BITS UNIT: 4
MAKE AND MODEL NUMBER OF BATTERIES: NSR100FT
TOTAL AMOUNT OF ELECTROLYTE IN EACH BATTERY: 1.2 GALLONS
TOTAL AMOUNT OF ACID IN EACH BATTERY: 5 GALLONS
TOTAL AMOUNT OF ELECTROLYTE ON THE SITE: 4.8 GALLONS
TOTAL AMOUNT OF ACID ON THE SITE: 2 GALLONS

PROJECT DESCRIPTION

THIS PROJECT IS AN ADDITION OF T-MOBILE EQUIPMENT TO THE EXISTING LOCAL PERSONAL COMMUNICATION SYSTEM (PCS) SITE, WHICH TRANSMITS AND RECEIVES RADIO SIGNALS AS PART OF A REGIONAL PCS NETWORK FOR OMNIPOINT AND T-MOBILE. THIS PCS SITE IS LOCATED OUTSIDE IN THE OPEN AIR, LOCATED WITHIN THE CITY OF MILPITAS, CALIFORNIA.

THE MAIN COMPONENTS OF THIS PROJECT ARE THE ADDITION OF EIGHT (8) T-MOBILE ANTENNAS 54.5" X 12.5" X 3.5" INSIDE PROPOSED 48" X 60" RF SCREENED CUT-OUTS IN EXISTING ROOF PARAPET, 12" CABLE TRAY FROM ANTENNAS TO EQUIPMENT. TWO (2) BTS CABINETS, TWO (2) FUTURE BTS CABINETS AND POWER AND TELCO EQUIPMENT TO BE PLACED IN 8' X 25' T-MOBILE EQUIPMENT LEASE AREA LOCATED ON THE ROOFTOP AND THE ADDITION OF A 200AMP POWER METER IN EXISTING POWER ROOM ON GROUND FLOOR.

THIS PCS SITE IS PART OF THE EMERGENCY E911 BROADCAST SYSTEM AND CAN BE TURNED OFF REMOTELY WITHIN 4 MINUTES AFTER RECEIVING AN AUTHORIZED CALL ON THE T-888 NUMBER POSTED ON THE RADIO EQUIPMENT BY ANY EMERGENCY PERSONNEL WHO HAS A NEED TO HAVE THIS SITE'S RADIO SIGNAL TURNED OFF, OR DOWN DUE TO AN EMERGENCY.

APPROVALS

APPROVED BY:	INITIALS:	DATE:
O.P.E./OPS:		
LEASING:		
RF:		
ZONING:		
CONSTRUCTION:		
POWER/TELCO:		
PG&E:		

Δ	DATE	DESCRIPTION	REV
	12/22/06	100% ZD'S	1

ISSUE STATUS

1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA, 94520



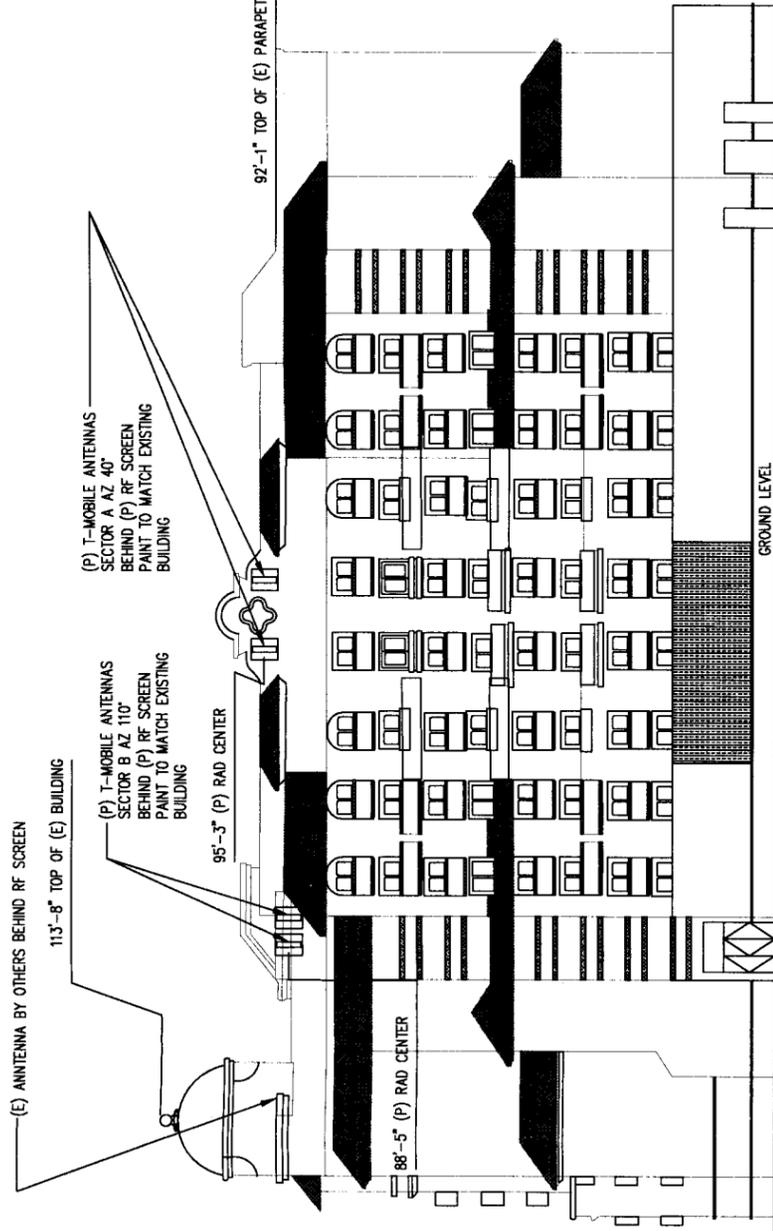
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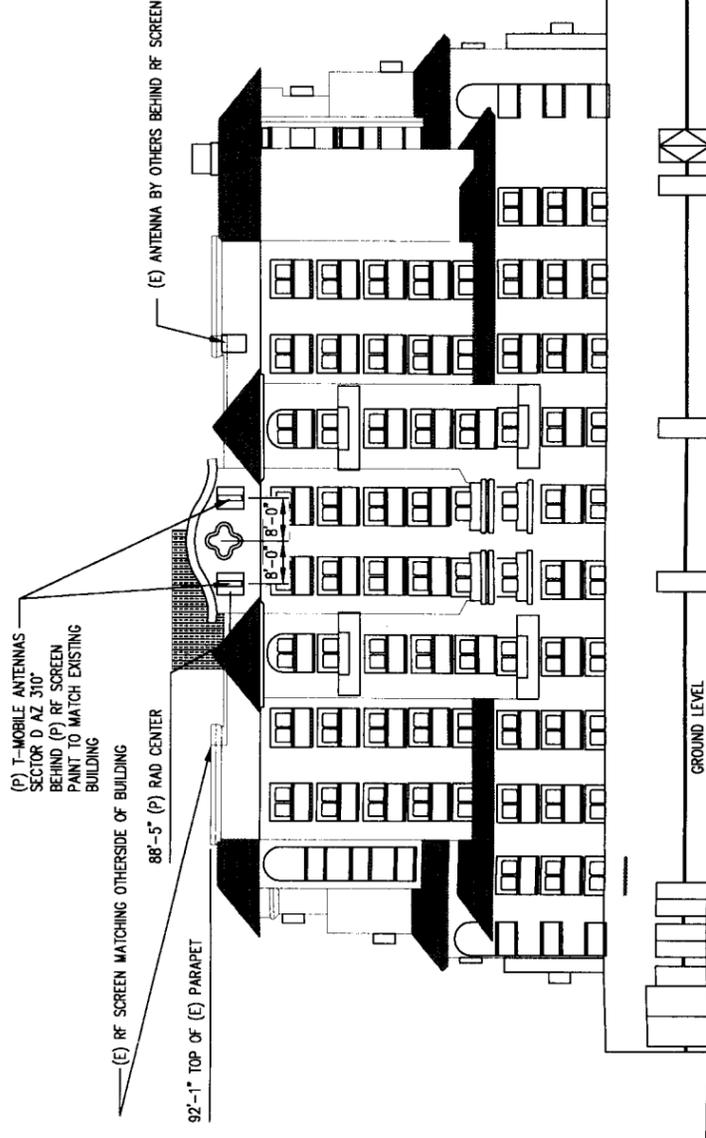
SHEET TITLE:
EXISTING AND PROPOSED
EAST AND NORTH ELEVATIONS

A-4



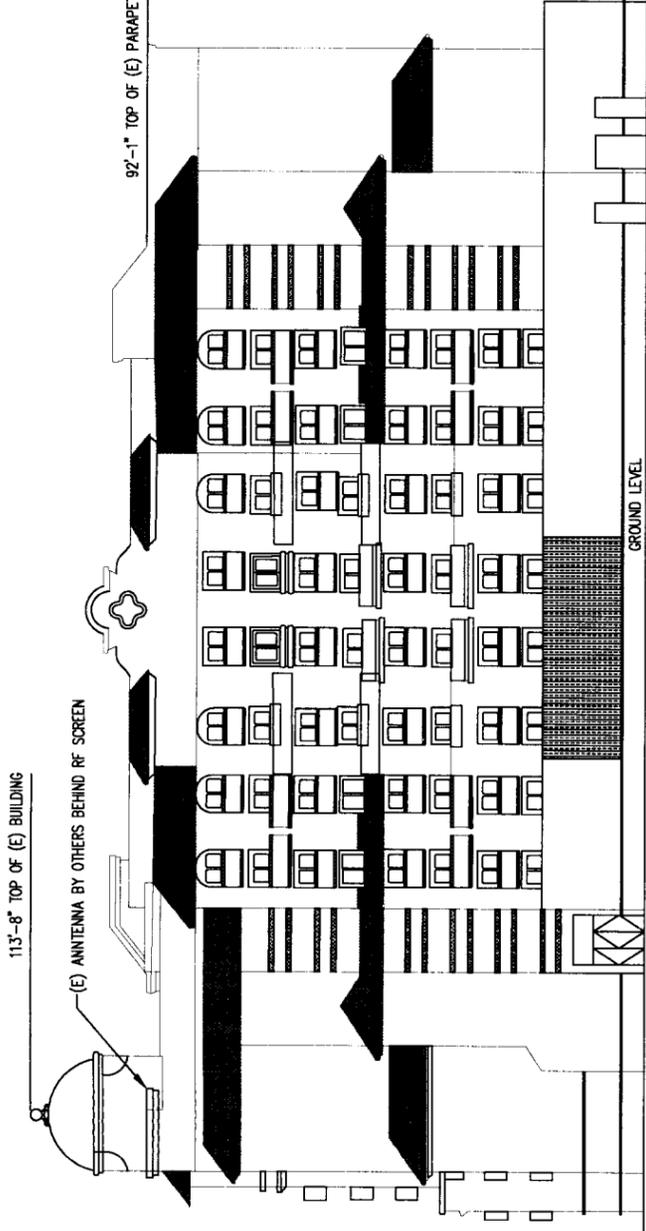
PROPOSED EAST ELEVATION

2



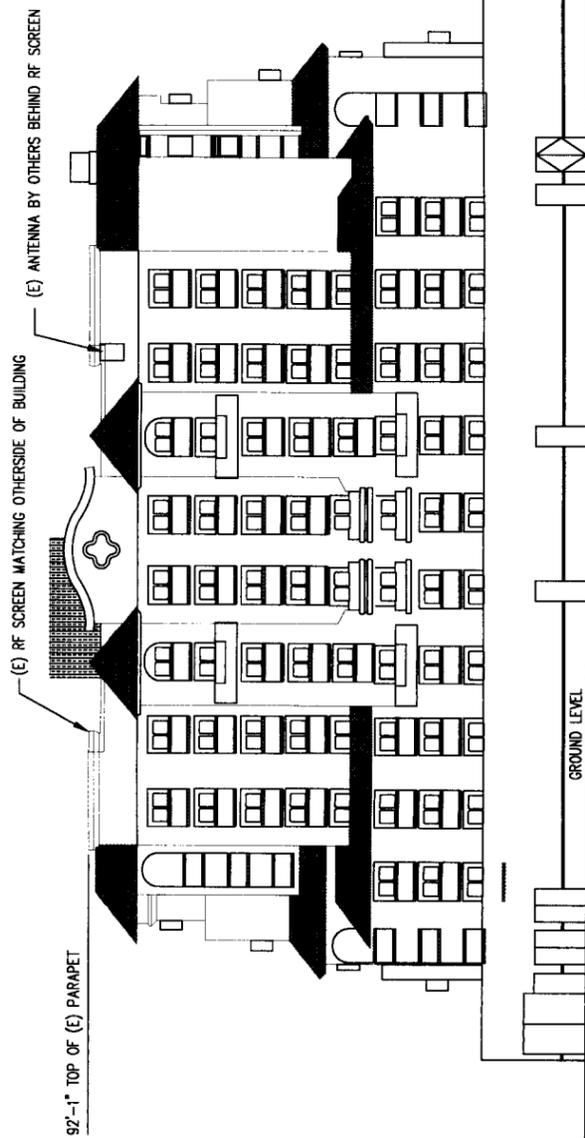
PROPOSED NORTH ELEVATION

4



EXISTING EAST ELEVATION

1



EXISTING NORTH ELEVATION

3



