


STAFF REPORT

SAUSALITO ZONING ADMINISTRATOR

Project Verizon / 475 Gate 5 Road
Design Review Permit Modification
Conditional Use Permit Modification
Modification of DR/UP 04-019

Meeting Date December 2, 2010

Staff Lilly Schinsing, Associate Planner 

REQUEST

Approval of a Modification to an existing Design Review Permit and Conditional Use Permit (DR/UP 04-019) to install one (1) new equipment cabinet inside an existing equipment room located in the interior of the building at 475 Gate 5 Road.

PROJECT INFORMATION

Applicant Verizon

Property Owner Holt Greene

Location/Size 475 Gate 5 Road; APN 063-140-24
75,358 square feet; see **Exhibit A** for vicinity map

General Plan Industrial

Specific Plan Marinship Specific Plan

Zoning Industrial Zoning District with a Marinship Specific Plan Overlay (I-M)

Authority Administrative Design Review Permit (Zoning Ordinance Section 10.54.040.B.10)
Zoning Administrator Amendment to Conditional Use Permit (Zoning Ordinance Section 10.80.040.B.3)
Standards and Criteria for Wireless Communications Facilities (Zoning Ordinance Section 10.45.020)

BACKGROUND

On June 9, 2004 the Planning Commission adopted Resolution No. 2004-26, which permitted Verizon for the construction of a new wireless communications facility by installing 6 panel antennas and 2 GPS antennas within faux chimneys constructed on the existing building at 475 Gate 5 Road (VA/UP/DR 04-019).

PROJECT DESCRIPTION

SITE LOCATION

Neighborhood: The project is located within the Marinship neighborhood. The neighborhood consists of commercial, industrial and marine-related uses.

Subject Parcel: The subject parcel is a level lot along the east side of Gate 5 Road. The existing use on site is a mix of industrial, office and commercial uses.

STRUCTURES, DESIGN AND MATERIALS

The applicant, Verizon, is proposing to modify the existing wireless communications facility by installing one (1) new equipment cabinet (27.5"x27.5"x8') inside an existing equipment room located in the interior of the building at 475 Gate 5 Road (see **Exhibit C** for a photograph submitted by the applicant). The purpose of the new cabinet is to provide Long Term Evolution (LTE) service to Verizon customers. No utility line extensions are proposed and there will be no trenching associated with the project. See the project plans in **Exhibit D**.

Maintenance and Access:

The facility is unmanned and maintenance service is provided approximately every other month by technicians.

ENVIRONMENTAL ANALYSIS

The subject application is Categorically Exempt from the California Environmental Quality Act (CEQA), in accordance with Sections 15301 of the CEQA Guidelines. The project involves the installation of new equipment at an existing utility facility.

PROJECT ANALYSIS

GENERAL PLAN CONSISTENCY

To approve the proposed project the Zoning Administrator must determine that the project is consistent with all applicable General Plan policies. Staff has identified the following program of the Environmental Quality Element as most relevant to the proposed project:

Program EQ-1.3.3. Aesthetics. Encourage aesthetically designed public facilities (power lines water lines, water tanks, etc.), with appropriate placement, adequate setbacks and property landscaping, to reduce aesthetic impacts and impact on views of hillsides, ridgelines, open space and the Bay.

Staff concludes that the proposed project is consistent with Program EQ-1.3.3 as the equipment would be collocated with an existing facility and placed in a manner that is compatible with existing and surrounding structures, would be mounted inside an existing equipment room, and not appear to have any effect on the surrounding neighborhood which in this case is a wireless communications facility located in an Industrial area.

ZONING CONSISTENCY

The Project Summary Table compares selected development standards of the Industrial Zoning District with the existing conditions and the proposed design. The table shows that the project is in compliance with the development standards of the Industrial Zoning District.

	Zoning District Requirements	Existing	Proposed	Compliance
Parcel Area:	Not applicable	38,740 square feet	No change	Yes
Height:	Minimum height required to permit the services ¹	Completely enclosed equipment room	Located completely inside equipment room	Yes

Pursuant to Section 10.45.070, a part of this application Staff reviewed the original approvals to verify the applicant's compliance with conditions of approval. Staff found that the applicant is in compliance with all conditions of approval, with the exception of two conditions of approval. Condition of Approval No. 8 in Planning Commission Resolution 2004-26 requires that the applicant enter into a Performance Agreement pursuant to Section 10.45.050 of the Zoning Ordinance. The City does not have any record that a Performance Agreement was entered into. Condition of Approval No. 16 in Planning Commission Resolution 2004-26 requires the applicant to submit an affidavit certifying that the lease for the project does not prohibit co-location by other wireless providers, and that the applicant will do nothing to obstruct future co-location. The City does not have any record of a Performance Agreement. These two conditions have been added to the draft resolution and the applicant will be required to comply with them prior to issuance of a Building Permit.

Standard and Criteria for Wireless Communications Facilities

The proposal modifies an existing wireless communications facility use, which is operated by Verizon. Section 10.45.030, Applications for Permits for Wireless Communications Facilities, lists a number of items that must be submitted to deem an application complete. Among the list of items are a Service Network and Coverage Area Map (see **Exhibit I**). The Service Network and Coverage Area Map shows the present and projected signal coverage in Sausalito rated by signal strength (strong, marginal and weak). The Service Network and Coverage Area Map shows that the proposed project will not change the coverage in Sausalito.

Verizon has stated that new facilities are not planned in Sausalito and, as required by Section 10.45.030.B.4, a one year future facilities map provided by Verizon shows that there are no future facilities planned in Sausalito (see **Exhibit G**).

Location of Wireless Communication Facilities

Section 10.45.100.D.1, Location of Wireless Communications Facilities, indicates that location preference for wireless communications facilities should be given to Co-Location and Shared Location sites, when such siting minimizes adverse effects related to land use compatibility, visual resources, public safety, and other environmental factors. Since the subject site is at existing wireless communications facility Staff concludes that the proposal meets the criteria listed in Section 10.45.100.D.2, Guidelines for Co-Location and Shared-Location to ensure proper siting. In addition, a condition of approval has been added to the draft resolution (see **Exhibit B**) requiring an affidavit be submitted certifying that the lease for the project does not prohibit co-location by other wireless providers and that Verizon will do nothing to obstruct future co-location.

Section 10.45.030.B.10 of the Standards and Criteria for Wireless Communications Facilities requires Alternative Site Analysis if the facility is either (a) not in an Industrial District, or (b) within 50 feet of a

¹ Pursuant to Section 10.45.160.B.9, "Wireless communication facilities should be the minimum height required to permit the service proposed for that location and should be located at the lowest elevation possible. In particular, facilities should be located below any ridge line or other significant public line of sight or underground wherever possible. Carriers must demonstrate that facilities have been designed to attain the minimum height required from a technological standpoint for the proposed site."

“Less Preferred Location,” or (c) not “stealthfully designed.” On January 14, 2009, the Planning Commission adopted Resolution No. 2009-04 which approves an interpretation of Zoning Ordinance Section 10.45.030.B.10 to exempt modification of existing wireless facilities from the requirement to provide alternative site analyses.

Electromagnetic Field Exposure

The operator of an existing wireless communications facility must continue to report on compliance with the City’s regulations for wireless communication facilities (Chapter 10.45 of the Zoning Ordinance). Specifically, Sections 10.45.110.B. and C., require that [biennially], the operators of wireless communications facilities to submit a written report of the results of the tests which indicate the actual EMF (electromagnetic field) levels measures at the property line or nearest point of public access, whichever is closer. The applicant has submitted a compliance report prepared by Hammett & Edison, Inc. (see **Exhibit H**).

The results of the report indicate that the maximum ambient RF exposure level for a person at ground level during the operation of the facility is 1.5% of the Federal Communications Commission (FCC) limit for public exposure. The report indicates that the site complies with the FCC guidelines limiting public exposure to radio frequency energy and therefore, will not cause a significant impact on the environment.

Lighting

Pursuant to Section 10.45.120, lighting of facilities is encouraged to be as minimally as possible. No lighting is proposed as a part of the project. A condition of approval has been provided stating that no exterior security lighting may be installed on the subject site unless otherwise reviewed and approved by the Community Development Department.

Roads, Access and Security

Pursuant to Section 10.45.130, wireless communication facilities should use existing roads and parking where possible and secure equipment to prevent unauthorized access. The facility is serviced by maintenance personnel for routine maintenance or in the case of emergency. Maintenance is expected to occur once a month on average at which time existing roads and existing parking would be used to access the site.

Vegetation and Landscaping

Pursuant to Section 10.45.140, wireless communications facilities must be installed in a manner that minimizes the impacts to existing vegetation. Staff concludes that the project would not have any effect on vegetation as the equipment would be installed in a fully enclosed building.

Section 10.45.140 states that where appropriate, additional landscaping must be provided to visual screen the proposed facility. Staff concludes that the addition the equipment in a fully enclosed building would not require additional screening.

Noise and Traffic

Pursuant to Section 10.45.150, wireless communications facilities must be constructed and operated in such a manner as to minimize noise and traffic impacts on nearby residents and the public. The project is subject to noise exposure standards contained in the Noise Ordinance and the General Plan. In addition, the project has been conditioned on normal testing and maintenance activities occurring between the hours of 8am and 6pm Monday through Friday, excluding emergency repair. Therefore, Staff concludes that the project, as conditioned, would have no measurable effect on traffic or noise levels in the neighborhood.

Visual Compatibility and Facility Site Design

The purpose of the visual compatibility and facility site design standards is to ensure proper conditions of approval are required which mitigate the visual impacts of wireless facilities in accordance with Section 10.45.160 of the Zoning Ordinance. Staff has determined that the proposed project meets all applicable standards. A document outlining the standards and associated staff determinations has been provided in **Exhibit J**.

Design Review Permit and Conditional Use Permit Findings

The proposed project is subject to the provisions of Zoning Ordinance Chapter 10.45, Standards and Criteria for Wireless Communications Facilities as the proposal consists of modification of an existing wireless communications facility.

Findings for Wireless Facilities

To approve the proposed project, the Zoning Administrator must make the findings listed in Section 10.45.020. Staff finds that the Conditional Use Permit and Design Review Permit findings can be favorably recommended for the proposed project. The required findings and the basis for making the findings are listed in Attachment 1 of **Exhibit B**.

PUBLIC NOTICE AND CORRESPONDENCE

- November 22, 2010 – Notices were mailed to all residents and property owners within 300 feet of the project site.
- No written correspondence was received at the time of writing the staff report.

RECOMMENDATION

Staff recommends the Zoning Administrator approve the attached draft resolution (**Exhibit B**) which approves a modification to an existing Design Review Permit and Conditional Use Permit (DR/CUP 08-019) to install one (1) new equipment cabinet inside an existing equipment room located in the interior of the building at 475 Gate 5 Road (APN 063-140-24).

Alternatively, the Zoning Administrator may:

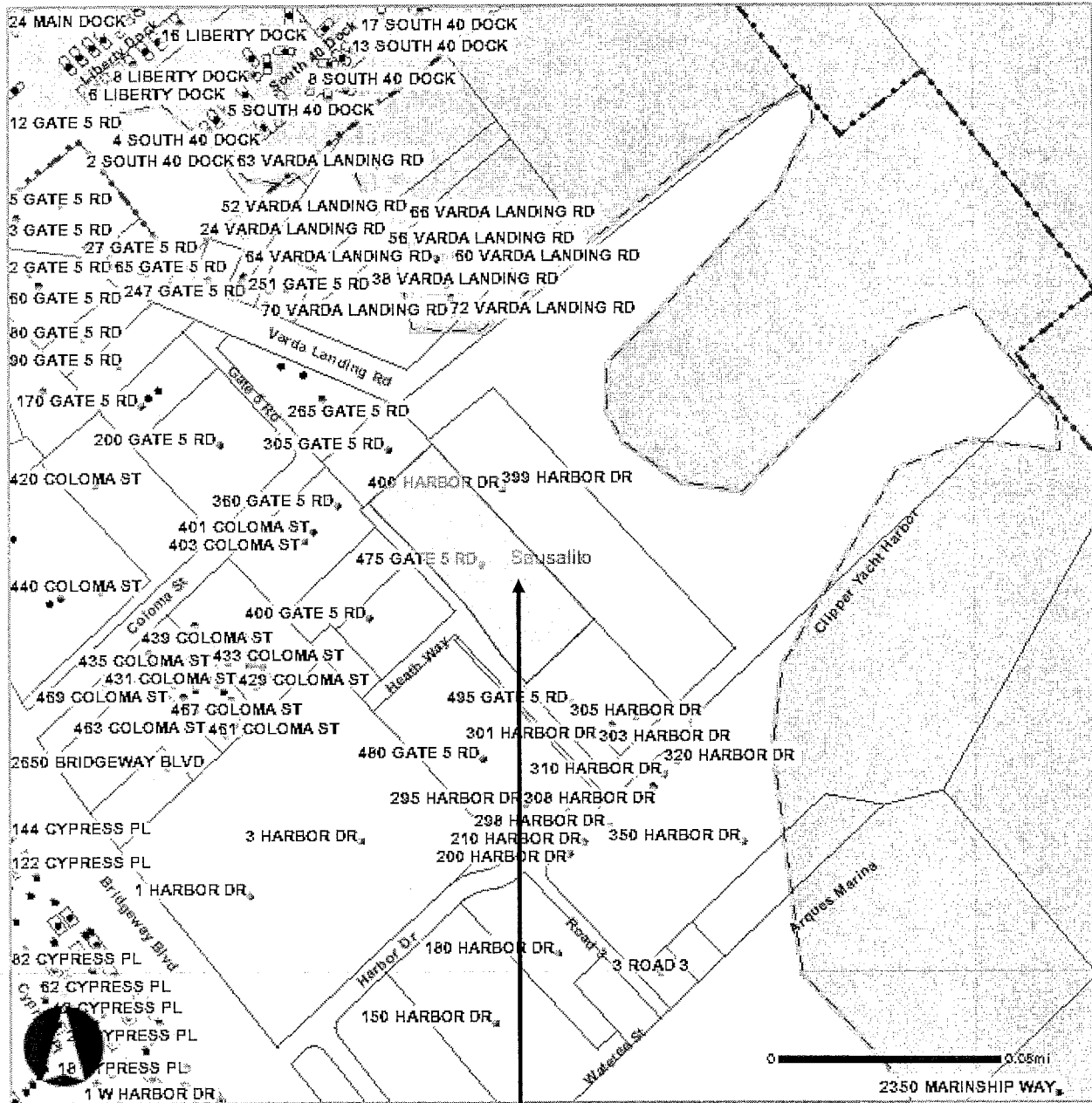
- Approve the modification to the Design Review Permit/ Conditional Use Permit with modifications;
- Continue the hearing for additional information and/or project revisions; or
- Deny the modification to the Design Review Permit/ Conditional Use Permit and direct Staff to return with a Resolution of Denial.

EXHIBITS

- A. Vicinity Map
- B. Draft Resolution
- C. Photographs of equipment area, date stamped October 21, 2010
- D. Project Plans, date stamped October 21, 2010
- E. Applicant's Project Description, date stamped October 21, 2010
- F. Site Location Map
- G. One Year Future Facilities Map, date stamped October 21, 2010
- H. Compliance Report prepared by Hammett & Edison, Inc., date stamped November 11, 2010
- I. Service Network and Coverage Area Maps, date stamped October 21, 2010
- J. Visual Compatibility and Facility Site Design Standards with Staff Determinations

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VICINITY MAP



475 Gate 5 Road

EXHIBIT A
(1 PAGE)

SAUSALITO ZONING ADMINISTRATOR
RESOLUTION NO. 2010-XX

APPROVAL OF A MODIFICATION TO AN EXISTING DESIGN REVIEW PERMIT
AND CONDITIONAL USE PERMIT FOR THE INSTALLATION OF ONE NEW EQUIPMENT
CABINET WITHIN AN EXISTING LEASE AREA AT AN EXISTING WIRELESS
COMMUNICATIONS FACILITY AT 475 GATE 5 ROAD
(MODIFICATION OF DR/UP 04-019)

WHEREAS, On June 9, 2004 the Planning Commission adopted Resolution No. 2004-26, which permitted a wireless facility at 475 Gate 5 Road (DR/UP 04-019); and

WHEREAS, on October 21, 2010 an application was filed by Chad Christie, on behalf of applicant Verizon, on behalf of the property owner, Holt Greene, requesting Planning Commission approval of a modification to an existing Design Review Permit and Conditional Use Permit DR/UP 04-019 for the installation of one (1) new equipment cabinet within an existing lease area at an existing wireless communications facility at 475 Gate 5 Road (APN 063-140-24); and

WHEREAS, the Zoning Administrator conducted a duly-noticed public hearing on December 2, 2010 at which time all interested persons were given an opportunity to be heard; and

WHEREAS, the Zoning Administrator finds that the project is categorically exempt from California Environmental Quality Act (CEQA) pursuant to Sections 15301 of the CEQA Guidelines; and

WHEREAS, the Zoning Administrator has reviewed and considered the project plans prepared by HMH Design Group, entitled "Sausalito LTE Antenna Add Mod" and date-stamped received on October 21, 2010; and

WHEREAS, the Zoning Administrator has received and considered all oral and written testimony on the subject application; and

WHEREAS, the Zoning Administrator has reviewed and considered the information contained in the staff report for the proposed project; and

WHEREAS, the Zoning Administrator finds that, as conditioned herein, the proposed project is consistent with the General Plan and complies with the Zoning Ordinance requirements as described in the staff report.

NOW, THEREFORE, THE ZONING ADMINISTRATOR HEREBY RESOLVES AS FOLLOWS:

The modification of the Design Review Permit and Conditional Use Permit for the installation of one (1) new equipment cabinet within an existing lease area at an existing wireless communications facility at 475 Gate 5 Road are approved based upon the attached (Attachment 1), subject to the conditions of approval (Attachment 2) and as shown in the project plans titled "Sausalito LTE Antenna Add Mod" date stamped received on October 21, 2010 (Attachment 3).

Date

Jeremy Graves, AICP
Zoning Administrator

ATTACHMENTS

- 1- Findings
- 2- Conditions of Approval
- 3- Project Plans, entitled "Sausalito LTE Antenna Add Mod," date-stamped received October 21, 2010

ZONING ADMINISTRATOR RESOLUTION

December 2, 2010

Modification of DR/UP 04-019

475 Gate 5 Road

ATTACHMENT 1: FINDINGS

WIRELESS COMMUNICATIONS CONDITIONAL USE PERMIT AND DESIGN REVIEW PERMIT FINDINGS

Pursuant to Zoning Ordinance Section 10.45.020 (Conditional Use Permit and Design Review Approval for a Wireless Communications Facility), the modification to the Conditional Use Permit and Design Review Permit are approved based on the following findings:

A. The proposed project is consistent with the General Plan, the Zoning Ordinance, and any applicable specific plans.

The proposed project is consistent with all applicable policies, standards, and regulations of the General Plan and Zoning Ordinance.

B. The proposed project complements the surrounding neighborhood and/or district and, when antenna is attached to, or part of, a structure, the antenna and its screening complement the architecture of the structure.

The new equipment cabinet will be mounted inside an existing equipment room located in the interior of the building at 475 Gate 5 Road. Therefore, the new equipment cabinet will be screened from view and will be consistent with this standard.

C. The proposed project is consistent with the general scale of structures and buildings in the surrounding neighborhood and/or district.

The new equipment cabinet will be mounted inside an existing equipment room located in the interior of the building at 475 Gate 5 Road with existing equipment cabinets. No additional height or significant bulk is proposed and therefore this finding does not apply.

D. The proposed project has been located and designed to minimize obstruction of public views and primary views from private property.

The new equipment cabinet will be mounted inside an existing equipment room located in the interior of the building at 475 Gate 5 Road with existing equipment cabinet out of public view. Therefore, the equipment cabinet is consistent with this standard and do not have an impact on public and private views.

E. The proposed project will not result in a prominent profile (silhouette) above a ridgeline.

The subject site is not located on a ridgeline.

F. The proposed landscaping provides appropriate visual relief, complements the buildings and structures on the site, and provides an attractive environment for the enjoyment of the public.

No landscaping is proposed as the equipment cabinet will be mounted inside an existing equipment room located in the interior of the building at 475 Gate 5 Road with existing equipment cabinets.

G. Mechanical equipment is appropriately designed and located to minimize visual, noise, and air quality impacts to adjacent properties and the general public.

The new equipment cabinet will be mounted inside an existing equipment room located in the interior of the building at 475 Gate 5 Road with existing equipment cabinets which is appropriately located to minimize visual, noise and air quality impacts to adjacent properties and the general public.

H. The proposed design preserves protected trees and significant natural features on the site to a reasonable extent and minimizes site degradation from construction activities and other potential impacts.

The project would have no affect on natural features on-site. No grading is proposed and construction will be limited to the installation of the equipment cabinet.

I. The proposed use, together with the applicable conditions, will not be detrimental to the public health, safety, or general welfare of the City.

The proposed use would comply with all applicable health regulations and would not be detrimental to the public health, safety, or general welfare of the City.

J. The proposed facility will not materially adversely affect nearby properties or their permitted uses.

The project would not have any significant affect on nearby properties, adverse or otherwise.

ZONING ADMINISTRATOR RESOLUTION

December 2, 2010

Modification of DR/UP 04-019

475 Gate 5 Road

ATTACHMENT 2: CONDITIONS OF APPROVAL

These conditions of approval apply to the plans prepared by HMM Design Group, entitled "Sausalito LTE Antenna Add Mod" and date-stamped received on October 21, 2010:

General Conditions

1. All conditions in Planning Commission Resolution 2004-019 remain in effect.
2. Construction materials, equipment, vehicles, and debris boxes shall be placed to minimize obstruction of roads and gutters, shall be maintained in a clean and safe condition, and shall not be maintained in a manner that becomes a nuisance to the neighborhood.
3. No exterior security lighting may be installed on the subject site unless otherwise reviewed and approved by the Community Development Department and found to be consistent with Chapter 10.45 of the Zoning Ordinance.
4. No alternative or unrelated construction, site improvements, tree removal and/or alteration, exterior alterations and/or renovations shall be performed on the project site prior to commencement of construction of the proposed project. In such cases, this approval shall be rendered null and void unless approved by the Community Development Department as a modification to this approval.
5. The Applicant shall annually provide a written report to the Community Development Department evaluating the facility's compliance with all conditions of approval. The report shall be submitted no later than thirty (30) days following the anniversary of the approval of this permit. If the report is not provided in a timely manner or shows any conditions of approval are not being met, the Community Development Director shall schedule a public hearing to consider revocation of the permit. Additionally, a processing fee, as established by resolution of the City Council, shall be submitted concurrently with the report to pay for staff review and processing of the report, as well as the EMF exposure reports required by Section 10.45.110 of the Zoning Ordinance.
6. The biennial electromagnetic field (EMF) exposure reports required by Zoning Ordinance Section 10.45.110 shall be submitted within thirty (30) days of the anniversary of approval of this permit.
7. Normal testing and maintenance activities shall occur between the hours of 8am and 6pm Monday through Friday, excluding emergency repair.
8. In the event that any condition imposing a fee, exaction, dedication or other mitigation measure is challenged by the project sponsors in an action filed in a court of law or threatened to be filed therein which action is brought within the time period provided by law, this approval shall be suspended pending dismissal or final resolution of such action. If any condition is invalidated by a court of law, the entire project shall be reviewed by the City and substitute conditions may be imposed.

9. The applicant shall indemnify the City for any and all costs, including without limitation attorneys' fees, in defending this project or any portion of this project and shall reimburse the City for any costs incurred by the City's defense of the approval of the project.
10. Improvements within the public right of way shall conform to the Cities and County of Marin "Uniform Construction Standards".

Planning Conditions

11. Pursuant to Condition of Approval No. 8 in Planning Commission Resolution 2004-019, the applicant shall be required to enter into a Performance Agreement with the City of Sausalito prior to the commencement of any construction pursuant to an approval under this Chapter, which agreement shall include the following terms and conditions:

A. The applicant shall post a financial security, such as a letter of credit, which is acceptable to the City of Sausalito, to ensure that the approved facility is properly installed and maintained and to guarantee that the facility is dismantled and removed from the premises if it has been inoperative or abandoned for a one-year period, or upon expiration or revocation of the permit. The amount of the security shall be based upon a cost estimate equal to 125% of the amount needed to remove the facility and return the surrounding area to its condition prior to installation.

B. The carrier shall defend, indemnify, protect, and hold the City of Sausalito, its officers, officials, Council Members, commissioners, agents, and employees harmless from and against all liabilities, claims, losses, demands, suits, and/or causes of action of any kind arising out of a violation of any federal, state or municipal law or ordinance or in connection with the permitting, installation, use, or any other activity associated with the wireless communications facility. The City of Sausalito shall promptly notify the applicant of any such claim, action or proceeding. The City of Sausalito shall retain, however, the right to participate in any claim, action, or proceeding retaining the City's own counsel if Sausalito bears its own attorney's fees.

C. The applicant shall abide by all applicable state, federal and local laws and regulations.

The applicant shall comply with this condition prior to issuance of a building permit.

12. Pursuant to Condition of Approval No. 16 in Planning Commission Resolution 2004-019, the applicant shall provide an affidavit certifying that the lease for the project does not prohibit co-location by other wireless providers, and that the applicant will do nothing to obstruct future co-location. The applicant shall comply with this condition prior to issuance of a building permit
13. Upon building permit submittal the Conditions of Approval shall be shown on all construction drawings.
14. Upon building permit submittal the applicant shall provide a written response demonstrating compliance with each Condition of Approval.

Geotechnical Conditions

15. No excavation, trenching, or use of trenchless construction methods are permitted for this application.

Street Conditions

- 16. Applicant shall repair or replace, at no expense to the City, damage to existing public facilities due to construction activities prior to issuance of a Certificate of Occupancy.
- 17. Traffic Control signage shall be in compliance with Caltrans Standards for work in the Public Right-of-Way.

Engineering Conditions

- 18. Emergency vehicle access and access to adjacent properties shall be maintained at all times throughout the duration of this project.
- 19. After installation and prior to Certificate of Occupancy actual RF measurements shall be taken once the proposed facility is in operation. If the proposed facility increases the measured cumulative level of RF above the compliance level, then the proposed facility shall be shut down until it can be shown to be in compliance.
- 20. Construction materials, equipment, and vehicles shall be placed to minimize obstruction of roads and gutters, shall be maintained in a clean and safe condition, and shall not be maintained in a manner that becomes a nuisance. Material stock piles shall be covered when not being accessed to prevent material from blowing around. Construction materials, equipment and vehicles shall be placed off-site only after securing an encroachment permit.
- 21. Prior to issuance of the Certificate of Occupancy, the applicant shall complete all necessary public safety improvements subject to the approval of the City Engineer.

Advisory Notes

Advisory notes are provided to inform the applicant of Sausalito Municipal Code requirements, and requirements imposed by other agencies. These requirements include, but are not limited to, the items listed below.

- 1. This approval will expire in two (2) years from the date of adoption of this resolution if the property owner has not exercised the entitlements hereby granted.
- 2. An approval granted by the Zoning Administrator does not constitute a building permit or authorization for construction. Appropriate construction permit(s) issued by the Building Division must be obtained prior to construction.
- 3. All applicable City fees as established by City Council resolutions and ordinances shall be paid. Third party review fees (cost plus 10%) shall be paid.
- 4. Pursuant to Municipal Code Chapter 3.36, Construction Traffic Road Fees shall be paid prior to issuance of a building permit.
- 5. Pursuant to Municipal Code Chapter 8.54, applicants shall submit a Recycling Management Plan to the Community Development Department prior to the issuance of any construction permits, unless the requirement is waived pursuant to Section 8.54.050.
- 6. Pursuant to Municipal Code Section 18.08.020, overhead electrical and communication service drops shall be placed underground when the main electrical service equipment (including the panel) is relocated, replaced, and/or modified.

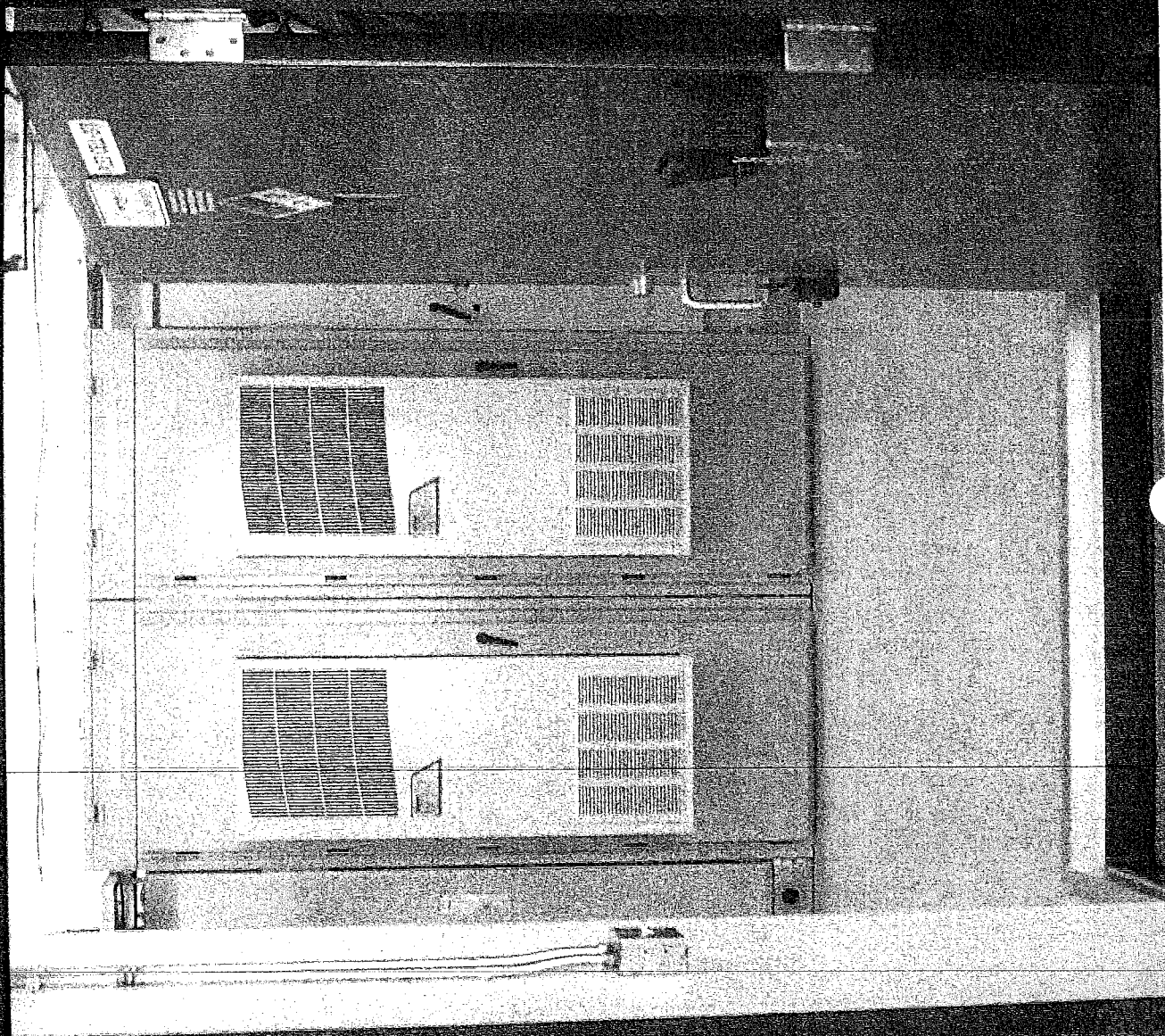
7. Pursuant to Zoning Ordinance Section 10.45.090, if use of a wireless communications facility ceases for one year or more the permit shall be deemed abandoned. The facility shall be dismantled and the premise restore in accordance with the procedures and standards listed in Section 10.45.090.
8. Pursuant to Zoning Ordinance Section 10.45.110, required EMF reports shall be paid for by the applicant and prepared by a third party consultant acceptable to the Community Development Director and using a testing protocol acceptable to the Community Development Director. All applicable City fees as established by City Council resolutions and ordinances shall be paid.
9. Within sixty (60) days of a wireless communications facility becoming operational, the applicant shall provide to the City a report indicating the actual EMF levels measured (pursuant to FCC protocol) at the property line or nearest point of public access, whichever is closer, in the direction of maximum radiation from each antenna. Reports shall specify signal levels with the site operating at full power and baseline levels with the site inoperative. Technical data shall be presented showing levels relative to the currently permitted Federal regulations. Raw measurements shall be provided as an appendix. In addition, the report shall include, in lay terms, a summary of the technical data as presented in the report.
10. Pursuant to Zoning Ordinance Section 10.45.110.A, wireless communications facilities operating alone and in conjunction with other telecommunications facilities shall not generate electromagnetic field (EMF) exposure or other measurable radiation in excess of the standards for permissible human exposure, as provided by applicable Federal regulations.
11. Biannually, the operator of the antenna shall have EMF exposure levels tested and shall submit to the City written report of the results of the tests. On years when testing is not required, the operator of the antenna shall submit to the City written certification by an independent licensed engineer that no modifications have been made to the facility design or configuration that have increased or will increase EMF exposure. If modifications have been made to the facility which have increased or will increase the EMF exposure, the applicant shall provide a supplemental report measuring the modified facility as set forth in Section 10.45.110(B) of the Zoning Ordinance.
12. Construction Impact Fees shall be paid in accordance with the Construction Impact Fee Ordinance. The fee is due prior to issuance of Building Permit.
13. Encroachment permit, grading permit, third party review fees (cost plus 10%) fees shall be paid.
14. An encroachment permit shall be obtained from the Public Works Department prior to using the public right of way for non-public purposes (e.g., material storage, sidewalk construction or demolition) including any and all construction and demolition activities.
15. Pursuant to Municipal Code Chapter 11.17, dumping of residues from washing of painting tools, concrete trucks and pumps, rock, sand, dirt, agricultural waste, or any other materials discharged into the City storm drain system that is not composed entirely of storm water is prohibited. Liability for any such discharge shall be the responsibility of person(s) causing or responsible for the discharge. Violations constitute a misdemeanor in accordance with Section 11.17.060.B.

16. Pursuant to Municipal Code Section 12.16.140, the operation of construction, demolition, excavation, alteration, or repair devices and equipment within all residential zones and areas within a 500 foot radius of residential zones shall only take place during the following hours:
Weekdays – Between 8:00 a.m. and 6:00 p.m.
Saturdays – Between 9:00 a.m. and 5:00 p.m.
Sundays – Prohibited
City holidays (not including Sundays) – Between 9:00 a.m. and 7:00 p.m.
17. Pursuant to Municipal Code Section 10.54.100, construction activities undertaken in accordance with a design review permit shall comply with the construction time limit regulations based upon the project's valuation. Construction projects which are not completed within the time limits are subject to daily penalties.
18. Permits required by other agencies having jurisdiction within the construction area must be obtained in accordance with the respective agency's regulations.
 - a. Marin Municipal Water District – (415-945-1400), including landscaping and irrigation regulations;
 - b. Southern Marin Fire Protection District -- (415-388-8182).

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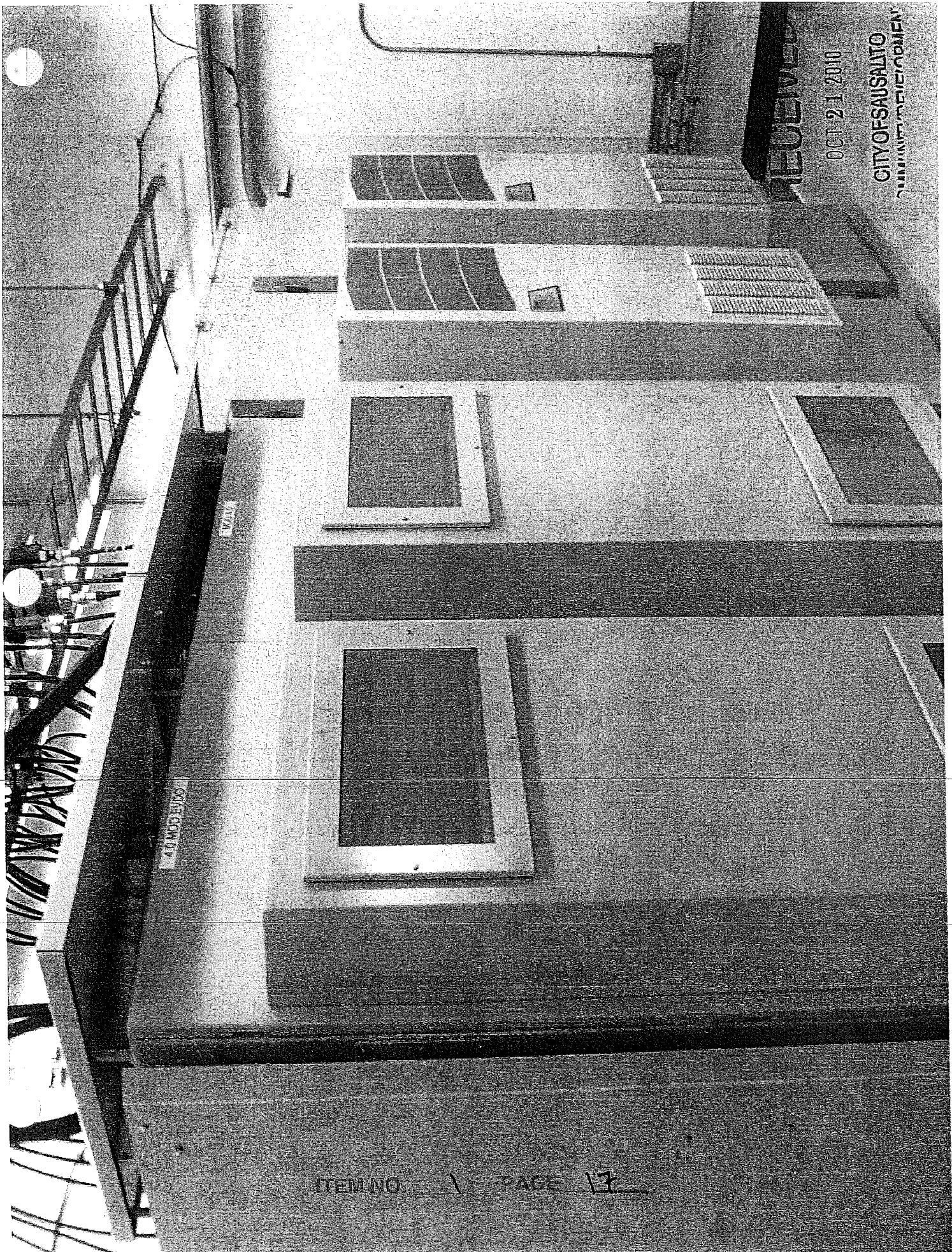
ZONING ADMINISTRATOR RESOLUTION
December 2, 2010
Modification of DR/UP 04-019
475 Gate 5 Road

ATTACHMENT 3: PROJECT PLANS



ITEM NO. 1 PAGE 16

EXHIBIT C
(3 PAGES)

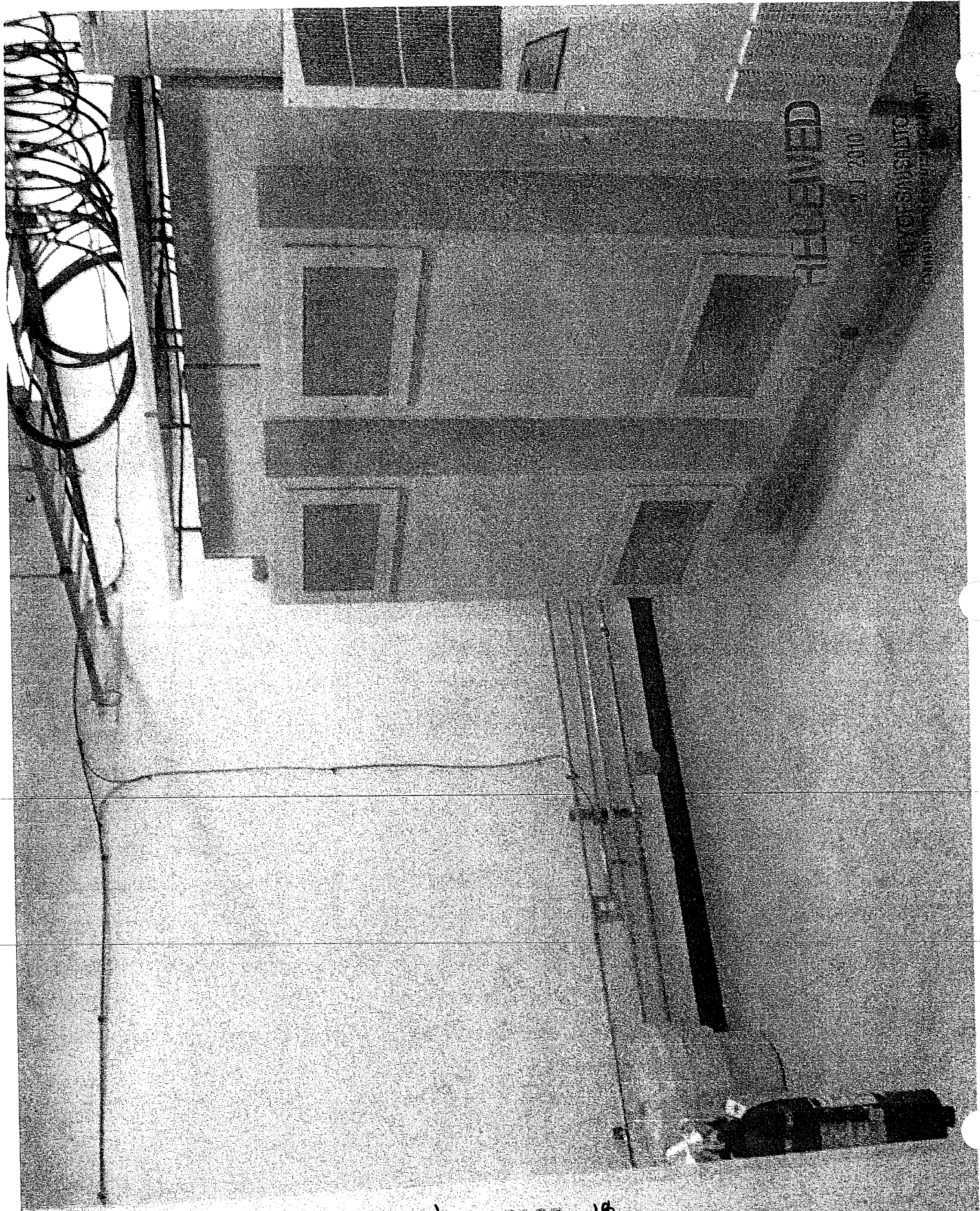


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OCT 21 2010

CITY OF SAUSALITO
COMMUNITY DEVELOPMENT

401008765



HMH
DESIGN GROUP
5164 FRY ROAD
MCCAVILLE, CA 94587
PHONE: (925) 279-6001
FAX: 448-8180

verizonwireless
2785 MITCHELL DRIVE, BLDG 9
SAUSALITO, CA 94965
PHONE: (925) 279-6006
FAX: (925) 279-6391

PSL NO. 123714
SAUSALITO
475 GATE 5 ROAD
SAUSALITO, CA 94965
ADMIN CHARTER

VERIZON WIRELESS
EQUIP. ENGINEER:
SIGNATURE _____ DATE _____
VERIZON WIRELESS
REAL ESTATE:
SIGNATURE _____ DATE _____

VERIZON WIRELESS
CONSTRUCTION:
SIGNATURE _____ DATE _____
VERIZON WIRELESS
RF ENGINEER:
SIGNATURE _____ DATE _____

PROPERTY OWNER:
SIGNATURE _____ DATE _____
DRAWN BY _____ CHECKED BY _____
PAM
NO. DATE ISSUE
A 10/09/09 FOR REVIEW

SHEET TITLE
TITLE SHEET
SHEET NUMBER
T-1

ON AIR, LLC - CONSTRUCTION
SIGNATURE _____ DATE _____
ON AIR, LLC - LEASING
SIGNATURE _____ DATE _____
ON AIR, LLC - ZONING
SIGNATURE _____ DATE _____

HMH JOB # 0964

Verizon wireless

SAUSALITO LTE ANTENNA ADD MOD PSL#123714

475 GATE 5 ROAD
SAUSALITO, CA 94965

LOCATION MAP	VICINITY MAP	CODE COMPLIANCE	PROJECT TEAM
		<p>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 NOT CONFORMING TO THESE CODES.</p> <ol style="list-style-type: none"> CALIFORNIA ADMINISTRATIVE CODE (INCLUDING TITLES 24 & 29) CALIFORNIA BUILDING CODE (CBC) 2007 CALIFORNIA PLUMBING CODE (CPC) 2007 CALIFORNIA ELECTRICAL CODE (CEC) 2007 COUNTY ORDINANCES <p>ACCESSIBILITY REQUIREMENTS: NOT FOR HUMAN HABITATION. MANUFACTURED FACILITY IS UNMANNED AND NOT REQUIRED IN ACCORDANCE WITH THE 2007 CALIFORNIA BUILDING CODE.</p>	<p>DESIGNER: HMH DESIGN GROUP 5164 FRY ROAD MCCAVILLE, CA 94587 PHONE: (925) 448-8011 FAX: (925) 448-8180</p> <p>LANDLORD: 475 GATE 5 RD, JOINT VENTURE ROBERT H. GREENE REAL ESTATE, INC SAUSALITO, CA 94965</p> <p>APPLICANT: Verizon Wireless 2785 MITCHELL DRIVE MCCAVILLE, CA 94587 PHONE: (925) 279-6391</p> <p>AGENCY: ON AIR, LLC 465 FIRST ST., WEST, SUITE 101 SONOMA, CA 94776</p> <p>CONTACT: CHAO CHRISTIE (916) 388-1470</p> <p>CONTACT_MGR: SCOTT COWAN PHONE: (707) 889-1144 FAX: (707) 833-9811</p>
<p>PROJECT DESCRIPTION</p> <ol style="list-style-type: none"> INSTALL (1) LTE CABINET IN EXISTING EQUIPMENT ROOM 	<p>BUILDING / SITE DATA LEGEND</p> <p>A.P.N.: 063-140-24 PSL NUMBER: 123714 OCCUPANCY TYPE: UNOCCUPIED CONSTRUCTION TYPE: V-N</p>	<p>PROJECT DESCRIPTION</p> <ol style="list-style-type: none"> INSTALL (1) LTE CABINET IN EXISTING EQUIPMENT ROOM 	<p>PROJECT TEAM</p> <p>DESIGNER: HMH DESIGN GROUP 5164 FRY ROAD MCCAVILLE, CA 94587 PHONE: (925) 448-8011 FAX: (925) 448-8180</p> <p>LANDLORD: 475 GATE 5 RD, JOINT VENTURE ROBERT H. GREENE REAL ESTATE, INC SAUSALITO, CA 94965</p> <p>APPLICANT: Verizon Wireless 2785 MITCHELL DRIVE MCCAVILLE, CA 94587 PHONE: (925) 279-6391</p> <p>AGENCY: ON AIR, LLC 465 FIRST ST., WEST, SUITE 101 SONOMA, CA 94776</p> <p>CONTACT: CHAO CHRISTIE (916) 388-1470</p> <p>CONTACT_MGR: SCOTT COWAN PHONE: (707) 889-1144 FAX: (707) 833-9811</p>
<p>DRIVING DIRECTIONS</p> <p>Depart 2785 Mitchell Dr, Walnut Creek, CA 94598 on Mitchell Dr (West) Turn RIGHT (Right) onto Gracie Ave Road name changes to Gracie Valley Rd Turn RIGHT (Right) onto Gracie Valley Rd Take Ramp (RIGHT) onto SR-24 [Crowe Shorter Fwy] CA-24 / Oakland Turn RIGHT (Right) onto Ramp I-580 / San Francisco / Hayward Keep RIGHT to stay on Ramp I-580 / San Francisco / Hayward Take Ramp (LEFT) onto SR-580 [MacArthur Fwy] I-580 / Hayward Turn RIGHT (Right) onto Bridge Blvd Take Ramp (LEFT) onto (E) SR Francis Drake Blvd Take Ramp (LEFT) onto US-101 [Redwood Hwy] US-101 / San Francisco Turn LEFT (Left) onto Marin City / Sausalito Keep RIGHT onto Ramp Marin City / Sausalito Road name changes to Bridge Blvd Turn RIGHT (South-East) onto Bridgeway Turn LEFT (Left) onto Gate 5 Rd, Sausalito, CA 94965</p>	<p>SHEET INDEX</p> <p>T-1 TITLE SHEET A-1 SITE AND ANTENNA PLAN A-2 ELEVATION VIEWS</p>	<p>PROJECT DESCRIPTION</p> <ol style="list-style-type: none"> INSTALL (1) LTE CABINET IN EXISTING EQUIPMENT ROOM 	<p>PROJECT TEAM</p> <p>DESIGNER: HMH DESIGN GROUP 5164 FRY ROAD MCCAVILLE, CA 94587 PHONE: (925) 448-8011 FAX: (925) 448-8180</p> <p>LANDLORD: 475 GATE 5 RD, JOINT VENTURE ROBERT H. GREENE REAL ESTATE, INC SAUSALITO, CA 94965</p> <p>APPLICANT: Verizon Wireless 2785 MITCHELL DRIVE MCCAVILLE, CA 94587 PHONE: (925) 279-6391</p> <p>AGENCY: ON AIR, LLC 465 FIRST ST., WEST, SUITE 101 SONOMA, CA 94776</p> <p>CONTACT: CHAO CHRISTIE (916) 388-1470</p> <p>CONTACT_MGR: SCOTT COWAN PHONE: (707) 889-1144 FAX: (707) 833-9811</p>
<p>LOCATION MAP</p>	<p>VICINITY MAP</p>	<p>CODE COMPLIANCE</p> <p>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 NOT CONFORMING TO THESE CODES.</p> <ol style="list-style-type: none"> CALIFORNIA ADMINISTRATIVE CODE (INCLUDING TITLES 24 & 29) CALIFORNIA BUILDING CODE (CBC) 2007 CALIFORNIA PLUMBING CODE (CPC) 2007 CALIFORNIA ELECTRICAL CODE (CEC) 2007 COUNTY ORDINANCES <p>ACCESSIBILITY REQUIREMENTS: NOT FOR HUMAN HABITATION. MANUFACTURED FACILITY IS UNMANNED AND NOT REQUIRED IN ACCORDANCE WITH THE 2007 CALIFORNIA BUILDING CODE.</p>	<p>PROJECT TEAM</p> <p>DESIGNER: HMH DESIGN GROUP 5164 FRY ROAD MCCAVILLE, CA 94587 PHONE: (925) 448-8011 FAX: (925) 448-8180</p> <p>LANDLORD: 475 GATE 5 RD, JOINT VENTURE ROBERT H. GREENE REAL ESTATE, INC SAUSALITO, CA 94965</p> <p>APPLICANT: Verizon Wireless 2785 MITCHELL DRIVE MCCAVILLE, CA 94587 PHONE: (925) 279-6391</p> <p>AGENCY: ON AIR, LLC 465 FIRST ST., WEST, SUITE 101 SONOMA, CA 94776</p> <p>CONTACT: CHAO CHRISTIE (916) 388-1470</p> <p>CONTACT_MGR: SCOTT COWAN PHONE: (707) 889-1144 FAX: (707) 833-9811</p>

NOTE: IF DRAWING IS 11" x 17"
DRAWING IS 1/2 SCALE

HMH

DESIGN GROUP

5184 FRY ROAD
VACAVILLE, CA 95687
TEL: (707) 448-1111
FAX: 448-8190



2785 MITCHELL DRIVE, BLDG 9
SANTA CLARA, CA 95056
OFFICE: (925) 279-8800
JAY ROUTE
(925) 279-6381

PCL NO. 123714
SAUSALITO
475 GATE 5 ROAD
SAUSALITO, CA 94965
MARIN COUNTY

VERIZON WIRELESS
EQUIP. ENGINEER:

SIGNATURE _____ DATE _____
VERIZON WIRELESS
REAL ESTATE:

SIGNATURE _____ DATE _____
VERIZON WIRELESS
CONSTRUCTION:

SIGNATURE _____ DATE _____
VERIZON WIRELESS
RF ENGINEER:

SIGNATURE _____ DATE _____
PROPERTY OWNER:

SIGNATURE _____ DATE _____

DRAWN BY _____ CHECKED BY _____

N/A

NO. _____ DATE _____

ISSUE

A 10/8/10 FOR REVIEW

SHEET TITLE

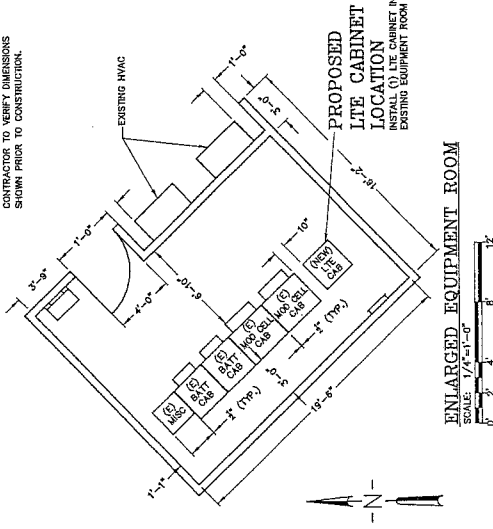
SITE PLAN

SHEET NUMBER

A-1

HW 0864

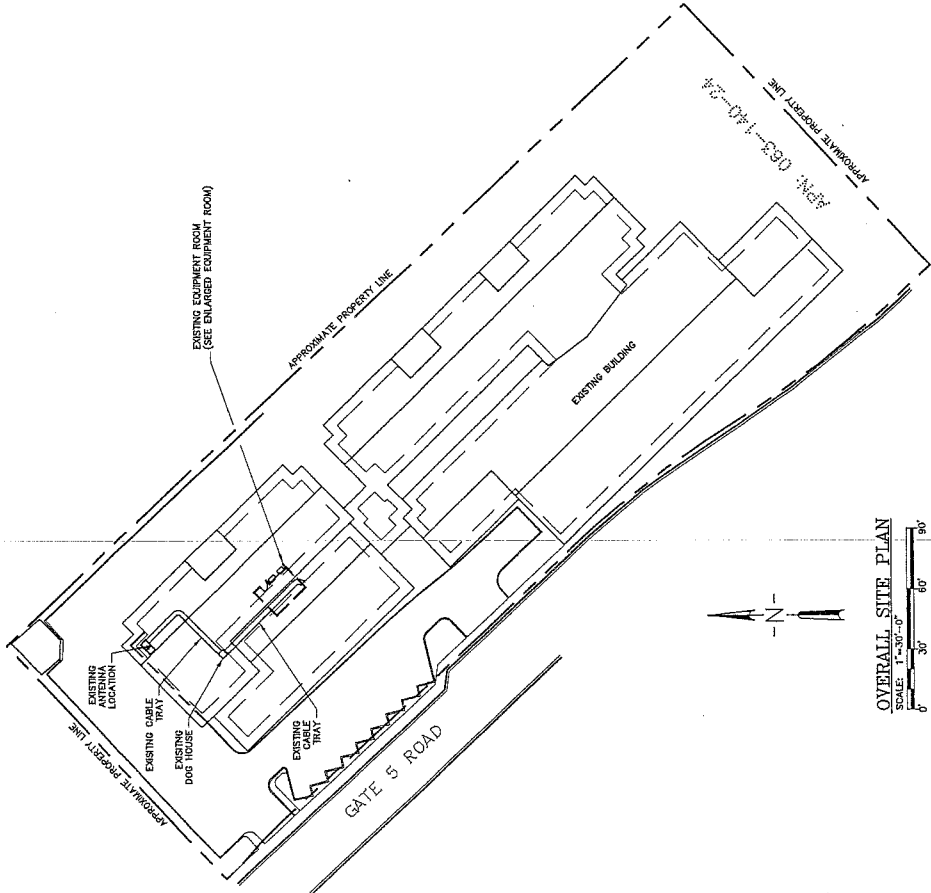
NOTE:
CONTRACTOR TO VERIFY DIMENSIONS
SHOWN PRIOR TO CONSTRUCTION.



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CITY OF SAUSALITO
COMMUNITY DEVELOPMENT



HMH
DESIGN GROUP

5184 FRY ROAD
 VACAVILLE, CA 95687
 PHONE: 707-448-8011
 FAX: 448-9110

verizon wireless

2785 MITCHELL DRIVE, BLDG 9
 WALNUT CREEK, CA 94598
 (925) 278-6000
 JAY WOLFE (25) 278-6000
 (925) 278-6391

P.S. NO. 123714
 475 GATE 5 ROAD
 SAUSALITO, CA 94965
 MARRIN COUNTY

VERIZON WIRELESS
 EQUIP. ENGINEER:

SIGNATURE _____ DATE _____
 VERIZON WIRELESS
 REAL ESTATE:

SIGNATURE _____ DATE _____
 VERIZON WIRELESS
 CONSTRUCTION:

SIGNATURE _____ DATE _____
 VERIZON WIRELESS
 RF ENGINEER:

SIGNATURE _____ DATE _____
 PROPERTY OWNER:

SIGNATURE _____ DATE _____
 DRAWN BY _____ CHECKED BY _____
 NAH

NO. _____ DATE _____ ISSUE _____
 A 10/9/10 FOR REVIEW

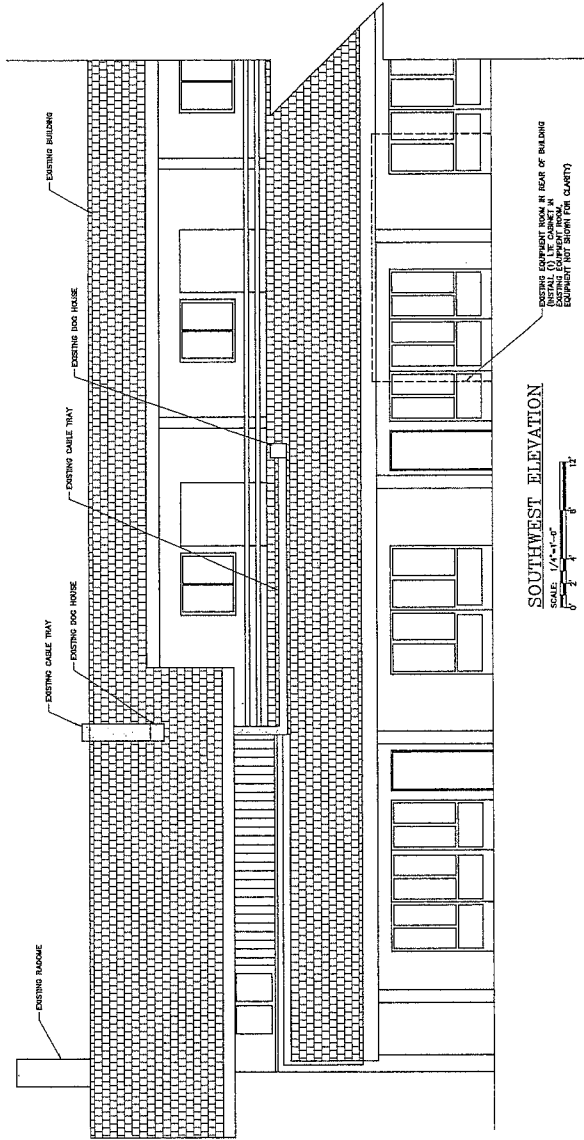
SHEET TITLE _____

ELEVATIONS

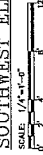
SHEET NUMBER _____

A-2

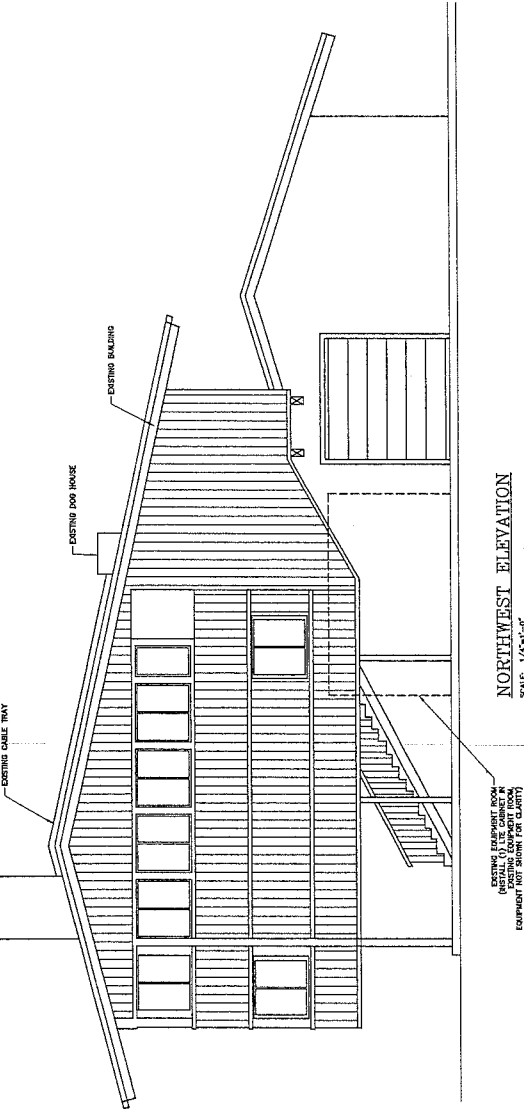
HMH JOB # 0864



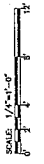
SOUTHWEST ELEVATION
 SCALE: 1/4"=1'-0"



NORTHWEST ELEVATION
 SCALE: 1/4"=1'-0"



NORTHWEST ELEVATION
 SCALE: 1/4"=1'-0"



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CITY OF SAUSALITO
COMMUNITY DEVELOPMENT

October 14, 2010

To: Lilly Schinsing, City of Sausalito, Planning Department

From: Chad Christie, On Air, LLC, representing Verizon Wireless

Re: Minor Modification of Existing Verizon Wireless Telecommunications Facility at
475 Gate 5 Road

Dear Ms. Schinsing:

In an effort to continue to provide exceptional coverage with the latest technology that wireless communications has to offer, Verizon Wireless is proposing to modify its existing at the above referenced address.

The proposed modification is minor in nature and includes the addition of one (1) equipment cabinet (Please reference the printouts for the dimensions and specifications of the cabinet) to be installed into the interior of the building. The equipment cabinet will be installed into the existing equipment room located in the interior of the building. This equipment room currently houses Verizon's radio equipment cabinets that power the site.

There will be no modifications to the antennas or to the exterior of the building at this time. I have attached pictures of the equipment room for your review of the current layout and location of the proposed cabinet.

The site is currently within compliance of its existing Conditional Use Permit issued by the City of Sausalito (ref. Resolution No. 2004-26). Verizon has complied with the existing conditions of approval by providing the following: 1) The facility does not exceed the current EMF standards as proposed by the Federal Communications Commission and 2) The facility was built to specification per the original exhibits illustrating the antennas installed behind stealth chimneys. Hammett and Edison, a well-established electrical engineering firm located in Santa Rosa, has provided (attached herein) a report specifying the current emissions propagated from the facility and has supported its conclusion that the facility does not exceed the current FCC guidelines.

Please accept the following items for Verizon's request to add the additional equipment cabinet and please do not hesitate to contact me should you have any further questions.

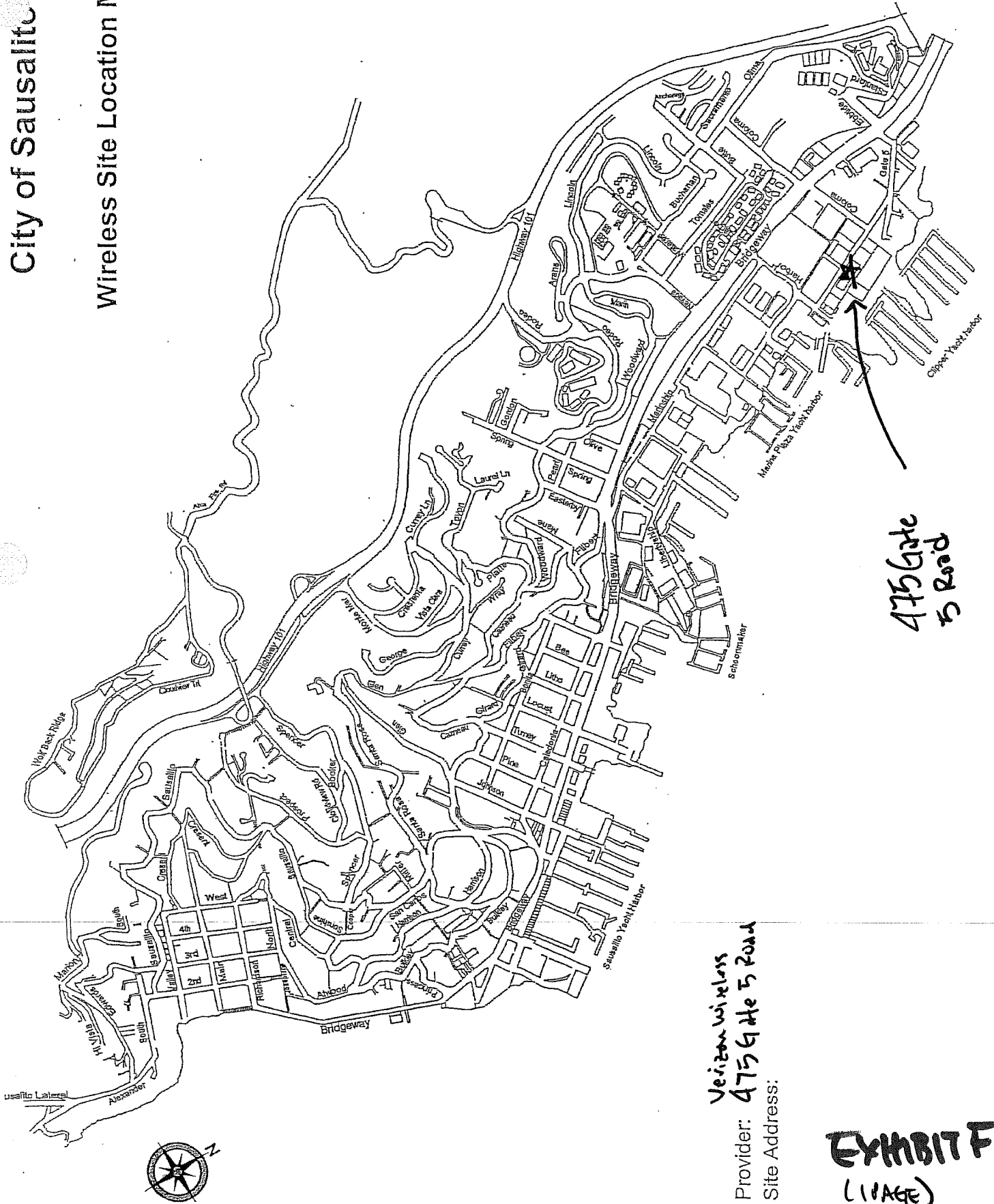
Sincerely,

Chad Christie
On Air, LLC for Verizon Wireless

EXHIBIT E
(1 PAGE)

City of Sausalito

Wireless Site Location Map

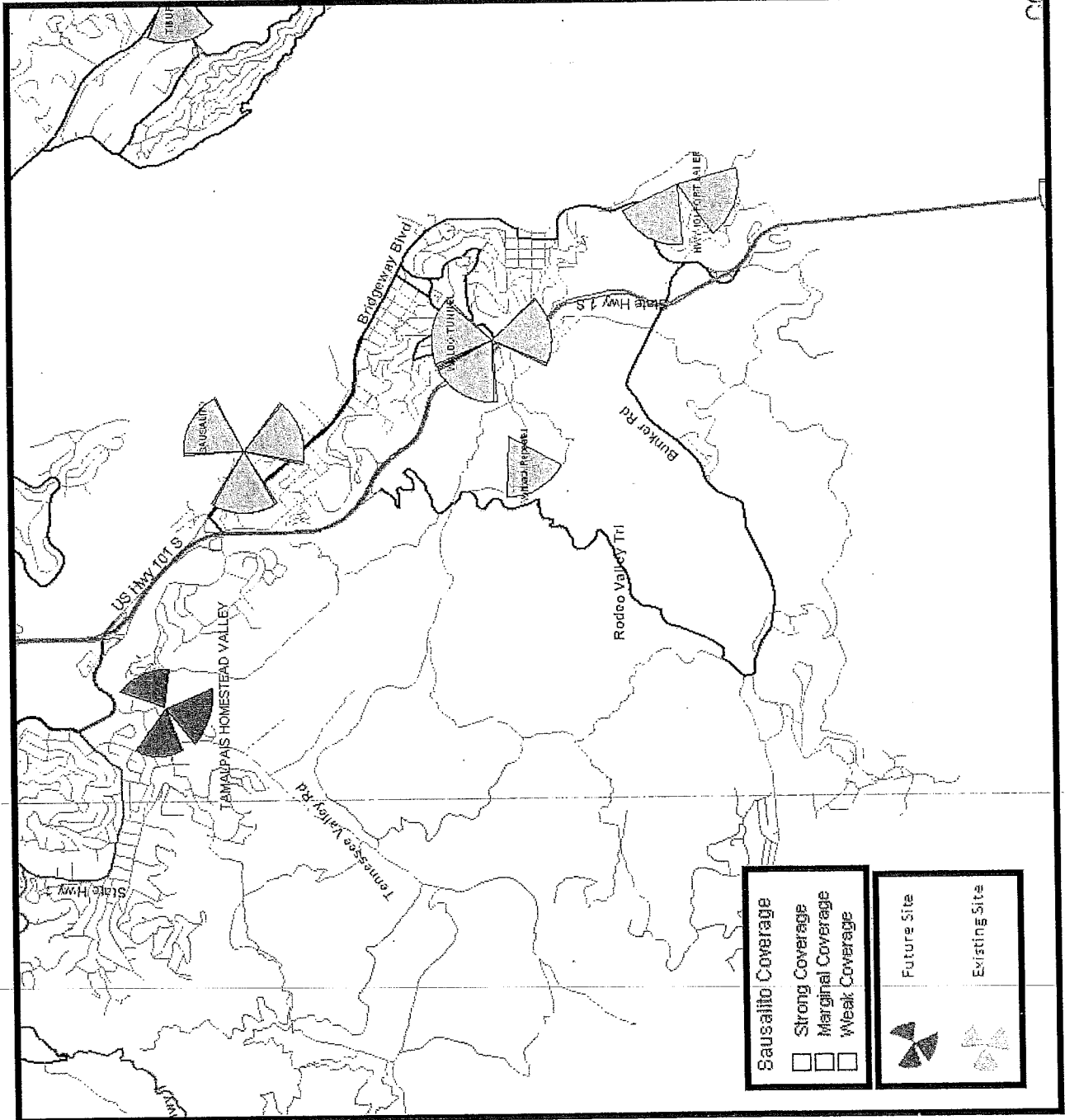


475 Gate
5 Road

Verizon Wireless
Provider: 475 Gate 5 Road
Site Address:

EXHIBIT F
(PAGE)

SAUSALITO COVERAGE - CURRENT Future Sites



*All future sites are outside of Sausalito

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(1 PAGE)

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Statement of Hammett & Edison, Inc., Consulting Engineers

CITY OF SAUSALITO
COMMUNITY DEVELOPMENT

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate proposed modifications to its existing base station (Site No. 123714 "Sausalito") located at 475 Gate 5 Road in Sausalito, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to add LTE service to its existing base station located at 475 Gate 5 Road in Sausalito. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. 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:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5,000–80,000 MHz	5.00 mW/cm ²	1.00 mW/cm ²
BRS (Broadband Radio)	2,600	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.35	0.47
[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. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the

EXHIBIT #
VW123714-08
Page 1 of 3
(5 PAGES)

**Verizon Wireless • Base Station No. 123714 “Sausalito”
475 Gate 5 Road • Sausalito, California**

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 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 Verizon, including drawings by HMM Design Group, dated October 8, 2010, that carrier presently has three Andrew Model DBXNH-6565A directional panel antennas installed within an enclosure, configured to resemble a chimney, above the roof of the two-story commercial building located at 475 Gate 5 Road in Sausalito. The antennas are mounted with no downtilt at an effective height of about 36½ feet above ground, 3 feet above the roof, and oriented toward 30°T, 160°T, and 270°T. Verizon proposes to install new radios to provide 700 MHz service. The maximum effective radiated power in any direction would be 3,040 watts, representing simultaneous operation at 1,140 watts for PCS, 1,500 watts for cellular, and 400 watts for 700 MHz service. There are reported no other wireless telecommunications base stations within 300 feet of the site.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.0081 mW/cm², which is 1.5% of the applicable public exposure limit. The maximum calculated level at the top-floor elevation of any nearby building* is 3.3% of the public limit. It should be noted that these results include several “worst-case” assumptions and therefore are expected to overstate actual power density levels. Levels may exceed the applicable public exposure limit on the roof of the subject building, near the antennas.

* Located at least 50 feet away, based on aerial photographs from Google Maps.

Verizon Wireless • Base Station No. 123714 "Sausalito"
475 Gate 5 Road • Sausalito, California

Recommended Mitigation Measures

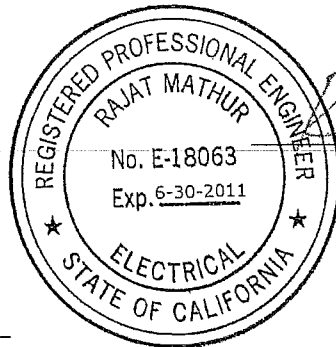
Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within 11 feet directly in front of the antennas themselves, such as might occur during maintenance work on the roof, 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[†] on the enclosure housing 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.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that the proposed operation of the Verizon Wireless base station located at 475 Gate 5 Road in Sausalito, 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 explanatory signs is recommended to establish compliance with occupational exposure limitations.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-18063, which expires on June 30, 2011. This work has been carried out 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.



Rajat Mathur
Rajat Mathur, P.E.
707/996-5200

November 11, 2010

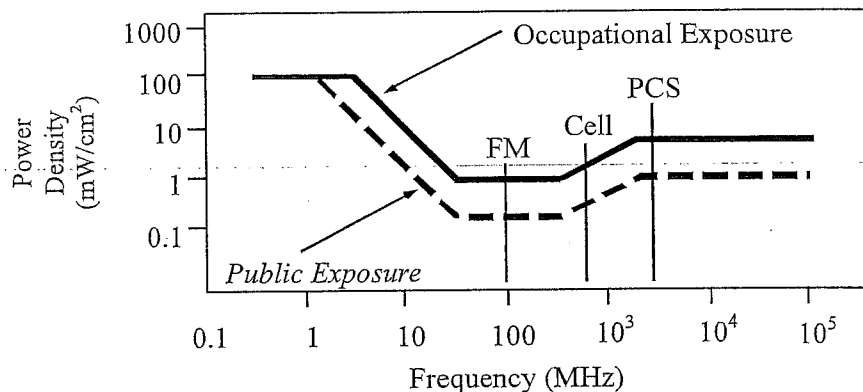
[†] Warning signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (e.g., a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning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

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 (“NCRP”). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, “Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” includes similar limits. 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 (f 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√f	<i>1.59√f</i>	√f/106	<i>√f/238</i>	f/300	<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 base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm²,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm²,

- where θ_{BW} = half-power beamwidth of the antenna, in degrees, and
 P_{net} = net power input to the antenna, in watts,
 D = distance from antenna, in meters,
 h = aperture height of the antenna, in meters, and
 η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

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.

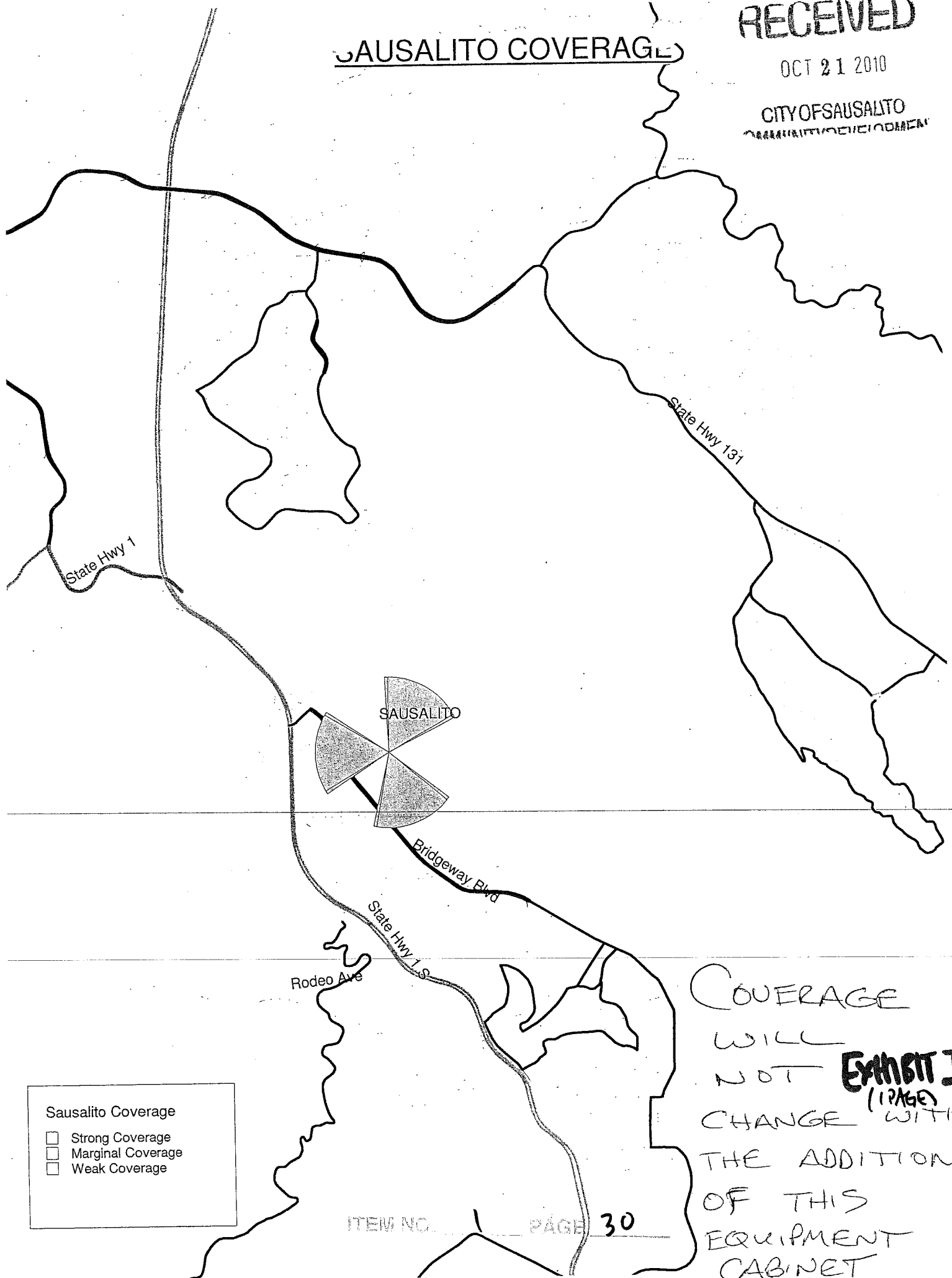
The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units 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.

SAUSALITO COVERAGE

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OCT 21 2010

CITY OF SAUSALITO
COMMUNITY DEVELOPMENT



- Sausalito Coverage
- Strong Coverage
 - Marginal Coverage
 - Weak Coverage

COVERAGE
WILL
NOT **EXHIBIT I**
(1 PAGE)
CHANGE WITH
THE ADDITION
OF THIS
EQUIPMENT
CABINET

**Zoning Ordinance Section 10.45.160:
Visual Compatibility and Facility Site Design Standards
475 Gate 5 Road**

The standards are printed in *italics* with Staff comment following each standard.

1. *To the extent feasible, all building-mounted wireless communications facilities shall be sited and designed to appear as an integral part of the structure consistent with the architectural style and character of the structure or otherwise made as unobtrusive as possible. If possible, antennas should be located entirely within an existing or newly created architectural feature so as to be completely screened from view. To the extent feasible, wall-mounted-antennas should not be located on the front, or most prominent façade of a structure, and should be located above the pedestrian line-of-sight.*

Staff Comment: The new equipment cabinet will be installed inside an existing equipment room. Therefore, the new equipment cabinet, screened from view, would be consistent with this standard.

2. *The colors and materials of towers, antennas, and equipment enclosures shall be selected to minimize their visibility and to match or be compatible with their surrounding background to the greatest extent possible.*

Staff Comment: The new equipment cabinet will be installed inside an existing equipment room. Therefore, the new equipment cabinet, screened from view, would be consistent with this standard.

3. *Base stations, equipment cabinets, back-up generators, and other equipment associated with building mounted antennas should be installed within the existing building envelope or partially or completely underground, if necessary to minimize visual impacts. If located above ground, the equipment shall be painted, screened, fenced, landscaped or otherwise treated architecturally to minimize its visibility from off-site locations and to visually blend with the surrounding natural and built environments. Equipment screening should be designed in an architectural style and constructed of exterior building materials that are consistent with surrounding, development and/or land use setting. Except in exceptional circumstances, in open space areas all base stations, equipment cabinets, back-up generators, and other equipment associated with an antenna shall be placed underground.*

Staff Comment: The new equipment cabinet will be installed inside an existing equipment room. As the compound exists already, it is not reasonable to require the placement of the new equipment cabinet underground.

4. *In certain open space or hillside locations that would be generally viewed from a distance, facilities shall blend in with natural features including the existing or proposed tree canopy and minimize unnecessary silhouetting on ridgelines. Innovative design solutions may be appropriate where the screening potential of a site is low.*

Staff Comment: The new equipment cabinet will be installed inside an existing equipment room. Therefore, the new equipment cabinet, screened from view, would be consistent with this standard.

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5. *Facilities should not be located on historically or architecturally significant structures unless visually and architecturally integrated with the structure and in accordance with all local, state, and Federal regulations.*

Staff Comment: The project would be incorporated with an existing wireless communications facility not determined to be historically or architecturally significant.

6. *Facilities should be sited to avoid adverse impacts to existing views from city-identified significant public view corridors.*

Staff Comment: The project would be incorporated with an existing wireless communications facility and would not adversely affect existing views from any city-identified public view corridor.

7. *No advertising signage or identifying logos shall be displayed on any facility, except for small identification plates used for emergency notification or as allowed or mandated by local, state, and Federal law.*

Staff Comment: No advertising signage or identifying logos are proposed for display.

8. *To avoid or minimize the appearance of visual clutter on rooftops, proposed facilities should, to the extent feasible, be located adjacent to existing rooftop antennas or equipment, incorporated into rooftop antenna or equipment enclosures, or otherwise screened from view. In addition, existing rooftop antennas and equipment should be consolidated where practical.*

Staff Comment: The new equipment cabinet will be installed inside an existing equipment room. Therefore, the placement of the cabinet is consistent with this standard.

9. *Wireless communication facilities should be the minimum height required to permit the services proposed for that location and should be located at the lowest elevation possible. In particular, facilities should be located below any ridgeline or other significant public line of sight or underground wherever possible. Carriers must demonstrate that facilities have been designed to attain the minimum height required from a technological standpoint for the proposed site.*

Staff Comment: The new equipment cabinet will be installed inside an existing equipment room. Therefore this standard is not applicable.

10. *Antennas and associated structures and equipment shall be painted to blend with the structures, vegetation, sky, or landscape against which they will be primarily viewed.*

Staff Comment: The new equipment cabinet will be installed inside an existing equipment room. Therefore, the new equipment cabinets will be appropriately screened.

11. *Where a facility is a new structure or increases the height of an existing structure, the total height of the facility shall not exceed 32 feet above the existing natural grade or the maximum height of the zoning district, whichever is more restrictive, unless the facility is determined by the Planning Commission to be suitably camouflaged, or unless the carrier can demonstrate that the height limit has the effect of prohibiting its service. In cases where the 32-foot height limit prohibits its service, the carrier may apply for a variance from the height limit.*

Staff Comment: As the facility is neither a new structure nor does it increase the height of an existing structure, the height complies with this standard.

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