

Staff Report to the Zoning Administrator Application Number: 09-0133

Applicant: Leah Hernikl Owner: Dominican Santa Cruz Hospital APN: 025-481-01

Agenda Date: 2/05/10 Agenda Item #: 3 Time: After 10:00 a.m.

Project Description: Proposal to replace three of six existing flat panel antennas at existing rooftop cell site; and add one equipment cabinet behind a new rooftop roof screen. Requires an Amendment to Commercial Development Permit 96-0040.

Location: Property located on the northwest corner of the intersection of Soquel Drive and Paul Sweet Road at 1555 Soquel Drive.

Supervisoral District: 1st District (District Supervisor: John Leopold)

Permits Required: Commercial Development Permit Amendment Technical Reviews: None

Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 09-0040, based on the attached findings and conditions.

Exhibits

- Α. Project plans
- Findings B.
- С. Conditions
- Categorical Exemption (CEQA determination) D.
- Assessor's, Location, Zoning and General Plan Maps E.
- F. Photo simulations
- NIER Report, prepared by Hammett & Edison, dated July 29, 2009 G.
- Design Review, prepared by Larry Kasparowitz, dated April 12, 2009 H.

Parcel Information

County of Santa Cruz Planning Department 701 Ocean Street, 4th Floor, Santa Cruz CA 95060 Application #: 09-0133 APN: 025-481-01 Owner: Dominican Santa Cruz Hospital

Parcel Information

Parcel Size:	18 acres				
Existing Land Use - Parcel:	Hospital and other medical buildings				
Existing Land Use - Surrounding:	Commercial, residential, and public uses				
Project Access:	Soquel Drive				
Planning Area:	Live Oak				
Land Use Designation:	Public Facility (Public Facility), Hospital				
Zone District:	PF (Public and Community Facility)				
Coastal Zone:	Inside Outside				
Appealable to Calif. Coastal	<u>Yes x</u> No				
Comm.					

Environmental Information

Geologic Hazards:	Not mapped/no physical evidence on site
Soils:	N/A
Fire Hazard:	Not a mapped constraint
Slopes:	N/A
Env. Sen. Habitat:	Not mapped/no physical evidence on site
Grading:	N/A, No grading proposed
Tree Removal:	N/A, No trees proposed to be removed
Scenic:	Not mapped within scenic resource area
Drainage:	N/A, Improvements on roof of existing building
Archeology:	N/A, Not mapped/no physical evidence on site

Services Information

Urban/Rural Services Line:	<u>x</u> Inside Outside
Water Supply:	N/A
Sewage Disposal:	N/A
Fire District:	Central Fire District
Drainage District:	N/A

History

An existing T-Mobile wireless communication facility is located on the rooftop of Dominican Hospital, approved under Use Permit 96-0040. This permit authorized six panel antennas, 2 equipment cabinets, and related power equipment. Building permits were required to be obtained from the Office of the State Architect since hospital building permits are regulated by the state. The wireless antennas are mounted on the parapet wall of the mechanical penthouse roof above the main roof of the hospital. The equipment is located on the roof and attached to the parapet wall of the penthouse. There are also other existing antenna structures mounted on the roof including UHF antennae and a whip antennae.

Most recently, Permit 08-0293, approved on June 5, 2009, authorized the co-location of 8

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AT&T panel antennas and 6 related equipment cabinets on the roof of the existing hospital. The applicant was required to provide a parapet wall to screen the existing and proposed rooftop equipment to mitigate most of the visual impacts of the proposed project without reducing the overall public view shed as a whole. The attached photo simulation, Exhibit F, shows the elevation detail of this required wall. The project was also conditioned to require the antennas to blend in with the color of the existing hospital building so that the antenna color would continue to camouflage the appearance of the antennas above the hospital penthouse.

The proposed application 09-0133 by T-Mobile amends permit 96-0040. A full compliance review for the hospital permits has not been completed for this application as cellular facilities are lease areas on the hospital property only and are not expected to ensure compliance of hospital use permits. However, with respect to the previous use permit T-Mobile Permit 96-0040, there are no outstanding compliance issues associated with this permit.

Project Setting

The subject property is located on the north side of Soquel Drive (1555 Soquel Drive) at about 800 feet east of the Highway 1 Soquel Drive exit. Six existing antennas are mounted on the top edge of the mechanical equipment penthouse above the main roof of the hospital. The existing wireless antennae, equipment cabinet, and other hospital rooftop equipment are attached to the outside of the penthouse wall and are visible to the internal circulation road within the hospital property, residentially occupied hillside to the north and behind the hospital, and are partially visible from Soquel Drive located to the south of the property.

Project Proposal

Three of the existing 6 T-Mobile panel antennas approved under 96-0040 are proposed to be replaced with 3 new panel antennas in the same locations originally approved. A new equipment cabinet is proposed within the T-Mobile lease area located along the edge of the penthouse wall on the east side of the penthouse wall. This will replace a previously approved cabinet that was never installed.

The project will not affect the number of antennas or cabinets in total on the roof of the hospital.

Zoning & General Plan Consistency

Cell Facility on a Public Facility Zoned Parcel

The subject property is zoned PF (Public Facility) and designated Public Facility by the General Plan and contains a Hospital General Plan overlay. The proposed use is an allowed use within the PF (Public and Community Facility) zone district in that utilities such as communication facilities are conditional uses in this district. Approval by the Zoning Administrator at a public hearing is required in this zone district.

Section 13.10.361 of the County Code establishes the purposes of the PF zone district, which are to provide for public and quasi-public community facilities, and regulate the use of land for these facilities with regard to location, design, service areas, and range of uses, so that they will be compatible with adjacent development, and will protect natural resources. The project is consistent with these criteria in that a communication transmission site and a hospital, although owned privately, are quasi-public uses. The location is already used as a utility site. No services are required, and no natural resources are impacted by addition of more antennas. The project is surrounded by other public and commercial uses.

Pursuant to the PF use chart, the proposed development is subject to the wireless communication facilities regulations contained under 13.10.660 through 13.10.668.

Applicable Wireless Regulations

On October 21, 2008 the Board of Supervisors' adopted revised wireless communication regulations amending sections 13.10.661 and 13.10.663 to limit the number of antennas to nine antennas regardless of the number of wireless carriers, and the number of equipment shelters to three above ground shelters unless visual impacts can be camouflaged. The previously approved project increased the number of existing antennas from 6 to 14, the proposed project does not add antennas, but does add one cabinet on the east side of the parapet wall of the hospital roof. The visual impacts of the proposed improvements are addressed below.

Co-location

As described by ordinance section 13.10.660 (d) co-location is defined to mean "where more than one wireless facilities share a single wireless facility." The proposed project is considered a co-location site. Code Section 13.10.661 (g) also states that "where one or more wireless communication facilities already existing on the proposed site location, colocation shall be required if it will not significantly increase the visual impact of the existing facility." Furthermore, the design review criteria under Code Section 13.10.663 (b) (5) encourage rooftop equipment to blend into the architecture of the building and encourage co-location over construction of a new tower.

Upgrading an existing co-location facility's antennas and/or equipment is consistent with the intent to encourage co-location of wireless facilities.

Visual Impacts

Existing pictures of Dominican Hospital are provided below. They include one photo from the Dominican Hospital's internal circulation road before and after the proposed parapet-screening wall.



Rear View of Dominican Hospital From Internal Circulation and Parking Area The wireless ordinance addresses visual impacts of wireless facilities in a number of ways. In general, County Code Section 13.10.663(a) (1) requires projects to preserve the visual character of the site as much as possible, minimize visual impacts to surrounding land uses as much as possible, and to minimize to the maximum extent feasible the visual impacts of wireless facilities on public view sheds. To further these objectives, County Code Section 13.10. 663 (a) (5) encourages stealth designs to minimize visibility where appropriate to the specific site.

Public Road Scenic Corridors

The subject property is not located within the Highway 1 Scenic Corridor and is not visible from this corridor because the highway is below the grade of Soquel Drive and screened by existing vegetation.

Visual Impacts to Surrounding Land Uses

The proposed replacement of 3 of the 6 antennas will result in slightly longer panel antennas that will have a minimal visual impact to the existing rooftop environment, but a small cumulative visual impact to surrounding properties nonetheless. The project will add an additional cabinet on the east side of the penthouse roof where none was approved before, which will create additional visual clutter on the rooftop. The existing and proposed visual simulations, attached as Exhibit F, are shown from the internal circulation road. To mitigate visual impacts of the proposed cabinet and existing antennas, this project is required to provide a parapet screening wall, shown in the Exhibit F, and required by Permit 08-0293, in the event that Permit 08-0293 does not move forward with their project building permits to construct the wall around the existing equipment on top of the penthouse roof. This will ensure that the proposed cabinet will be fully screened. The project is conditioned to require cost sharing of the parapet wall between AT&T and T-Mobile. In addition, the project is conditioned to require the antenna color to match the existing hospital color.

Radiofrequency (RF) Exposure

An RF report, as required by the Wireless Communications Ordinance, is attached as Exhibit G. This report evaluates the existing facility and evaluates projected emission levels. The existing and proposed levels are within FCC prescribed limits. The maximum level of both existing and proposed equipment does not exceed .70 percent of the most restrictive public limit at ground level. The maximum exposure on the nearest rooftop from any nearby building is projected to be approximately 1.3 percent of the most restrictive limit established by the Federal Communications Commission.

Section 47 USC 332(c)(7)(iv) of the Telecommunications Act of 1996 prohibits jurisdictions from regulating the placement, construction, or modification of Wireless Communications Facilities based on the environmental effects of RF emissions if these emissions comply with FCC standards.

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Design Review

The Urban Designer reviewed the proposed project and has recommended that the project plans include the parapet wall required by Permit 08-0293 to screen the equipment cabinets from public view. These building modifications are included in the attached plans noted as Exhibit A. No additional mitigations are proposed for this project except for a requirement that the equipment match the building color, which is added as a condition of project approval. Please see attached Design Review, Exhibit I.

Environmental Review

Environmental review has not been required for the proposed project per the requirements of the California Environmental Quality Act (CEQA). The project is exempt per Section 15301, Class 1 - Existing Facilities, and is attached as Exhibit D. This section allows additions to structures where it does not increase the floor area by more than 50 percent of the existing square footage. The proposed project does not increase the floor area of the building.

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. In particular, the proposed project is not visible from any designated scenic corridor, though it has been redesigned to limit views of the proposed equipment from surrounding properties and is also conditioned to require the antennas to match the existing hospital so that views of the project are minimized to the greatest extent feasible without blocking views over the top of the hospital roof.

Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- **APPROVAL** of Application Number **09-0133**, based on the attached findings and conditions.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

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Report Prepared By: Sheila McDaniel

Santa Cruz County Planning Department 701 Ocean Street, 4th Floor Santa Cruz CA 95060 Phone Number: (831) 454-3439 E-mail: <u>sheila.mcdaniel@co.santa-cruz.ca.us</u>









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Wireless Communication Facility Use Permit Findings

1. The development of the proposed wireless communications facility as conditioned will not significantly affect any designated visual resources, environmentally sensitive habitat resources (as defined in the Santa Cruz County General Plan/LCP Sections 5.1, 5.10, and 8.6.6.), and/or other significant County resources, including agricultural, open space, and community character resources; or there are no other environmentally equivalent and/or superior and technically feasible alternatives to the proposed wireless communications facility as conditioned (including alternative locations and/or designs) with less visual and/or other resource impacts and the proposed facility has been modified by condition and/or project design to minimize and mitigate its visual and other resource impacts.

This finding can be made in that the proposed antenna replacement is not mapped within any designated scenic corridor and will not be visible from Highway 1, the closest mapped scenic corridor from the site. Although the replacement antennas and equipment will only minimally contribute to the visual impacts to surrounding properties, the project is conditioned to provide a parapet roof wall extending from the southeastern edge of the existing parapet roof wall to the northwest end of the proposed cabinets to screen the equipment area, per Exhibit A. The project is also conditioned to match the color of the hospital. These measures will minimize the visibility to the maximum extent feasible and create a continuous roofline.

2. The site is adequate for the development of the proposed wireless communications facility and, for sites located in one of the prohibited and/or restricted areas set forth in Sections 13.10.661(b) and 13.10.661 (c), that the applicant has demonstrated that there are not environmentally equivalent or superior and technically feasible: (1) alternative sites outside the prohibited and restricted areas; and/or (2) alternative designs for the proposed facility as conditioned.

This finding can be made, in that this zone district is not identified as a restricted or prohibited area under the wireless regulations. The proposed location of the proposed antennas and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the PF (Public and Community Facility) zone district in that utilities such as communication facilities are conditional uses in this district.

3. The subject property upon which the wireless communications facility is to be built is in compliance with all rules and regulations pertaining to zoning uses, subdivisions and any other applicable provisions of this title (County Code 13.10.660) and that all zoning violation abatement costs, if any, have been paid.

This finding can be made, in that the commercial use of the subject property is in compliance with the requirements of the zone district and General Plan designation, in which it is located. No zoning violation abatement fees are applicable to the subject property.

This application does not result in an increase in the number of antennas on site because replacement antennas are proposed, though an additional cabinet is proposed beyond the three cabinets allowed by the ordinance or equipment enclosures allowed by County Code Section 13.10.661 (g). However, the project includes a parapet screening wall, also previously required

by Permit 08-0293, that will fully screen the additional cabinet. Therefore the project will be consistent with the intent of the ordinance to prohibit additional visual impacts.

4. The proposed wireless communication facility as conditioned will not create a hazard for aircraft in flight.

This finding can be made, in that the proposed antennas will be located below the aircraft travel path. The maximum height of the proposed antennas will be approximately 44 feet in height, less than the maximum height (approximately 47 feet in height) of an existing whip antenna on the roof. The existing heli-pad is not located on the rooftop of the hospital and therefore will not affect aircraft access to Dominican Hospital.

5. The proposed wireless communication facility as conditioned is in compliance with all FCC and California PUC standards and requirements.

This finding can be made, in that the radio frequency exposure levels were evaluated based on the power densities resulting from the combined operation of the existing and the proposed antenna array. The analysis was conducted by Hammett and Edison, as required by the Wireless Communications Ordinance, and is attached as Exhibit G. This report evaluates the existing facility and evaluates projected emission levels. The existing and proposed levels are within FCC prescribed limits. The maximum level of both existing and proposed equipment does not exceed .70 percent of the most restrictive public limit at ground level. The maximum exposure on the nearest rooftop from any nearby building is projected to be approximately 1.3 percent of the most restrictive limit established by the Federal Communications Commission.

6. For wireless communication facilities in the coastal zone, the proposed wireless communication facility as conditioned is consistent with the applicable requirements of the Local Coastal Program.

The proposed project site is not located within the coastal zone.

Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, in that the project is located in an area designated for Wireless uses and is not encumbered by physical constraints to development. Construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources. The proposed wireless use will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the existing wireless structure meets all current setbacks that ensure access to light, air, and open space in the In addition, the project will not be materially injurious to properties or neighborhood. improvements in the vicinity. The total radio frequency exposure levels from existing and new equipment were based on the power densities resulting from the combined operation of the existing and the proposed antenna array. The analysis was conducted by Hammett and Edison, as required by the Wireless Communications Ordinance, and is attached as Exhibit G. This report evaluates the existing facility and evaluates projected emission levels. The existing and proposed levels are within FCC prescribed limits. The maximum level of both existing and proposed equipment does not exceed .70 percent of the most restrictive public limit at ground level. The maximum exposure on the nearest rooftop from any nearby building is projected to be approximately 1.3 percent of the most restrictive limit established by the Federal Communications Commission.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the proposed location of the replacement antennas and additional cabinet and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the PF (Public and Community Facility) zone district in that utilities such as communication facilities are conditional uses this district.

Section 13.10.361 of the County Code establishes the purposes of the PF zone district. The purposes of the Public and Community Facilities district is to provide for public and quasi-public community facilities, and regulate the use of land for these facilities with regard to location, design, service areas, and range of uses, so that they will be compatible with adjacent development, and will protect natural resources. The project is consistent with these criteria in that a communication transmission site and a hospital, although owned privately, are quasi-public uses. The location is already uses as a utility site. No services are required, and no natural resources are impacted by addition of more antennas. The project is surrounded by other public and commercial uses.

Pursuant to the PF use chart, approval by the Zoning Administrator at a public hearing is required. In addition, the proposed development is subject to the wireless communication

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facilities regulations contained under 13.10.660 through 13.10.668. On October 21, 2008 the Board of Supervisors' adopted revised wireless communication regulations amending sections 13.10.661 and 13.10.663 to limit the number of antennas to nine antennas regardless of the number of wireless carriers, and the number of equipment enclosures/shelters to three above ground shelters. The proposed project does not increase the number of antennas on the site, but increases the number from 7 to 8 equipment cabinets beyond three cabinets allowed by the code and are prohibited unless visual impacts can be camouflaged. The greatest visual intrusion to surrounding properties is from the cluster of existing and proposed cellular rooftop equipment, including the proposed cabinet located on the eastern portion of the roof, which are visible to surrounding residential property on the hillside to the north of the subject property. The project is conditioned to provide a parapet roof wall extending from the southeastern edge of the existing parapet roof wall to the northwest end of the proposed cabinets to screen the equipment area, from the internal circulation road and from surrounding properties to the north. This parapet wall will fully screen the proposed cabinet.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made, in that the replacement antennas and cabinet are consistent with the use and density requirements specified for the Public Facility land use designation in the County General Plan.

The proposed equipment will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties, and existing building meets all current site and development standards for the zone district that ensure access to light, air, and open space in the neighborhood.

The replacement antennas and cabinets will not be improperly proportioned to the parcel size or the character of the neighborhood as specified in General Plan Policy 8.6.1 (Maintaining a Relationship Between Structure and Parcel Sizes), in that the proposed antennas and cabinets will be located on a existing building meeting with the site standards for the PF zone district.

A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed co-location on the existing building will not affect utilities since no additional water and sewer service are required, and adequate electricity is available to the site. Equipment installation and inspections by company personnel will not generate a significant amount of traffic.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the proposed use is an allowed use within the PF (Public

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Facility) zone district, consistent with the Public Facility Land Use designation, which allows utilities such as the proposed use. The location of the proposed project is situated at the approximate center of the subject property and provides approximately 550 feet of physical separation between the wireless antennas and equipment and the nearest residentially zoned property. The project is conditioned to provide a parapet roof wall extending from the southeastern edge of the existing parapet roof wall to the northwest end of the proposed cabinets to screen the equipment area, which will provide a significant improvement to the overall visual character of the hospital roof. In addition, the project is conditioned to require color matching to the existing building to minimize impacts to surrounding properties. The proposed use will not affect land use intensity or dwelling unit densities in the neighborhood.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed wireless communication project was subject to design review and conditioned to provide a parapet wall to screen the existing and proposed rooftop equipment from view surrounding property to the north. The project is also conditioned to require that antennas will be painted to match the color of the existing antennas to minimize the visual impact.

Conditions of Approval

- Exhibit A: Project Plans, prepared by Delta Group Engineering, Inc., dated 10/29/09 including sheets T1, A1, A2, A3, A4
- I. This permit authorizes the Amendment of Permit 96-0040 to allow the replacement of 3 of 6 existing flat panel antennas at an existing rooftop cell site; and addition of one equipment cabinet behind a new rooftop screen. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
 - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
 - B. Any outstanding balance due to the Planning Department shall be paid.
 - C. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder) within 30 days from the effective date of this permit.
 - D. Comply with all requirements of the Federal Aviation Administration and the California Division of Aeronautics.
- II. Obtain a Building Permit from the Office of the Statewide Health Planning and Development. Plans submitted to the State shall conform to the approved plans on file in the Planning Department and include the following:
 - A. The plans shall include an automatic shut-off valve, as required by the Central Fire District personnel, so that the antennas may be deactivated in case of an emergency. The location and access to this shut-off valve shall be coordinated with the fire district staff.
 - B. The plans shall include colors and materials for the parapet wall and replacement antennas so that they blend with the existing hospital building and minimize visual impacts of the proposed project. Planning Department staff shall review and approve the color and material prior to submittal to the State for a building permit.
 - C. The plans shall include a parapet roof wall extending from the south eastern edge of the existing parapet roof wall to the northwest end of the proposed cabinets to screen the equipment area as shown on Exhibit A.
- III. All construction shall be performed in accordance with the approved plans.
 - A. All recommended signage contained in the RF Report prepared by Hammett and

EXHIBIT C

Edison, dated June March 2, 2009 shall be posted.

IV. Operational Conditions

- A. Antennae and support structures shall be permanently maintained and painted regularly.
- B. The use of temporary or permanent generators to power the wireless communication facility are not allowed.
- C. All recommended signage contained in the RF Report prepared by Hammett and Edison, dated June 30, 2008, shall be permanently maintained.
- C. The operator of the wireless communication facility must submit within 90 days of commencement of normal operations (or within 90 days of any major modification of power output of the facility) a written report to the Santa Cruz County Planning Department documenting the measurements and findings with respect to compliance with the established Federal Communications Commission (FCC) Non-Ionizing Electromagnetic Radiation (NEIR) exposure standard. The wireless communication facility must remain in continued compliance with the NEIR standard established by the FCC at all times. Failure to submit required reports or to remain in continued compliance with the NEIR standard established by the FCC will be a violation of the terms of this permit.
- D. The rooftop access door and equipment cabinet area must be locked at all times except when authorized personnel are present. The antennas must not be accessible to the public.
- E. The panel antennae shall be deactivated during maintenance operations where personnel will be working adjacent to or in front of the antennae.
- F. All site, building, security and landscape lighting shall be directed onto the lease site and away from adjacent properties. Light sources shall not be visible from adjacent properties. Building and security lighting shall be integrated into the building design and shall be operated with a manual on/off switch. The site shall be unlit except when authorized personnel are present at night.
- G. If, as a result of future scientific studies and alterations of industry-wide standards resulting from those studies, substantial evidence is presented to Santa Cruz County that radio frequency transmissions may pose a hazard to human health and/or safety, the Santa Cruz County Planning Department shall set a public hearing and in its sole discretion, may revoke or modify the conditions of this permit.
- H. If future technological advances would allow for reduced visual impacts resulting from the proposed telecommunication facility, the operator of the wireless communication facility must make those modifications which would allow for

EXHIBIT C

reduced visual impact of the proposed facility as part of the normal replacement schedule. If, in the future, the facility is no longer needed, the operator of the wireless communication facility must abandon the facility and be responsible for the removal of all permanent structures and the restoration of the site as needed to re-establish the area consistent with the character of the surrounding natural landscape.

- I. Transfer of Ownership: In the event that the original permittee sells its interest in the permitted wireless communications facility, the succeeding carrier shall assume all responsibilities concerning the project and shall be held responsible to the County for maintaining consistency with all project conditions of approval, including proof of liability insurance. Within 30-days of a transfer of ownership, the succeeding carrier shall provide a new contact name to the Planning Department.
- J. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.
- K. This permit shall not supercede Use Permit 96-0040.
- V. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, it officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
 - A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
 - B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
 - 1. COUNTY bears its own attorney's fees and costs; and
 - 2. COUNTY defends the action in good faith.

- C. <u>Settlement</u>. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. <u>Successors Bound</u>. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

Please note: This permit expires three years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.

Don Bussey Deputy Zoning Adminis	trator	Sheila McDaniel Project Planner	
Expiration Date:	· .		
Effective Date:	<u></u>		
Approval Date:		· · · · · · · · · · · · · · · · · · ·	

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

CALIFORNIA ENVIRONMENTAL QUALITY ACT NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 09-0133 Assessor Parcel Number: 025-481-01 Project Location: 1555 Soquel Drive, Santa Cruz, CA 95065

Project Description: Proposal to co-locate 8 panel antennas and 6 related equipment cabinets on the roof of an existing hospital. Requires an Amendment to Commercial Development Permit 2380-U and Master Development Permits 76-1782 and 80-364-PD.

Person or Agency Proposing Project: AT&T C/O Jacqueline Smart w/Cortel

Contact Phone Number: (510) 435-9849

- A. _____ The proposed activity is not a project under CEQA Guidelines Section 15378.
- **B.** ____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).
- C. <u>Ministerial Project</u> involving only the use of fixed standards or objective measurements without personal judgment.
- **D.** _____ Statutory Exemption other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type:

E. X Categorical Exemption

Specify type: Class 1 - Existing Facilities (Section 15301)

F. Reasons why the project is exempt:

Addition to existing structure where the addition does not increase the floor area by more than 50 percent of existing

In addition, none of the conditions described in Section 15300.2 apply to this project.

<u> fr-</u> Date: 2/10/10

Sheila McDaniel, Project Planner







EXHIBIT E





T - Mobile - SF05738A Dominican Santa Cruz Santa Cruz, CA 95065

Proposed

proposed T-Mobile equipment proposed T-Mobile antennas cabinet behind new screen wall



EXHIBIT



Photosimulation of the proposed telecommunication facility as seen looking west from Soquel Drive



Valnut Creek, CA 94

EXHIBIT

F



Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of T-Mobile West Corp., a personal wireless telecommunications carrier, to evaluate proposed modifications to its existing base station (Site No. SF05738A) located at 1555 Soquel Drive in Santa Cruz, 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 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 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
Broadband Radio ("BRS")	2,600 MHz	5.00 mW/cm^2	1.00 mW/cm ²
Advanced Wireless ("AWS")	2,100	5.00	1.00
Personal Communication ("PCS")	1,950	5.00	1.00
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio ("SMR")	855	2.85	0.57
Long Term Evolution ("LTE")	700	2.33	0.47
[most restrictive frequency range]	30300	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



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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 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 zoning drawings by Delta Groups Engineering, dated January 29, 2009, that carrier presently has installed six Andrew 932DG65-T2EM directional panel antennas on poles above the penthouse of one of several hospital buildings located at 1555 Soquel Drive in Santa Cruz. T-Mobile proposes to replace three of those antennas with RFS Model APXV18-206516-C-A20 directional PCS antennas at the same locations, mounted with 2° downtilt at an effective height of about 42 feet above ground and oriented singly toward 85°T and 110°T and in pairs toward 175°T and 240°T. The maximum effective radiated power in any direction would be 2,370 watts, representing simultaneous operation at 1,520 watts for PCS and 850 watts for AWS.

Recently approved for this site is a similar base station for AT&T Mobility, which had proposed to install Kathrein Model 742-265 directional panel antennas to be mounted at an effective height of about 30¹/2 feet above ground and to operate at a maximum effective radiated power of 2,440 watts, representing simultaneous operation at 1,040 watts for PCS and 1,440 watts for cellular service.

Presently installed on a PG&E lattice tower about 1/4 mile to the northeast are similar antennas for use by Sprint Nextel and MetroPCS, other wireless telecommunications carriers.



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Study Results

The maximum ambient RF level within 1,000 feet at any ground level location due to the proposed T-Mobile operation by itself is calculated to be 0.0070 mW/cm^2 , which is 0.70% of the applicable public exposure limit; the maximum calculated cumulative level at ground for the simultaneous operation of T-Mobile and AT&T is 2.4% of the public exposure limit. The maximum calculated cumulative level at the second-floor elevation of any nearby building would be 6.1% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels. Due to the physical separation of the T-Mobile and AT&T antennas from those of Sprint Nextel and Metro, the additive effect of the operations at either site on the other is negligible. Figure 3 attached provides the specific data required under Santa Cruz County Code Section 13.10.659(g)(2)(ix), for reporting the analysis of RF exposure conditions.

Recommended Mitigation Measures

Due to their mounting location, 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 maintenance work on the building, 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 at 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 T-Mobile West Corp. base station located at 1555 Soquel Drive in Santa Cruz, 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

^{*} 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.



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operating base stations. Posting of 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 Nos. E-13026 and M-20676, which expire 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.



July 29, 2009



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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	Electro	magnetic Fi	ields (f is fr	equency of	emission in	MHz)	
Applicable Range (MHz)	Elec Field S (V/	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm ²)	
0.3 - 1.34	614	614	1.63	1.63	100	100	
1.34 - 3.0	614	823.8/f	1.63	2.19/f	100	180/ f ²	
3.0 - 30	1842/ f	823.8/f	4.89/ f	2.19/f	900/ f ²	180/ f ²	
30 - 300	61.4	27.5	0.163	0.0729	1.0	0.2	
300 - 1,500	3.54 √ f	1.59 √ f	√ f/106	√ ƒ/238	f/300	f/1500	
1,500 - 100,000	137	61.4	0.364	0.163	5.0	1.0	



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.



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FCC Guidelines Figure 1

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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:

power density
$$S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$$
, in mW/cm²,

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 ($1.6 \times 1.6 = 2.56$). 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.



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Methodology Figure 2

Compliance with Santa Cruz County Code §13.10.659(g)(2)(ix)

"Compliance with the FCC's non-ionizing electromagnetic radiation (NIER) standards or other applicable standards shall be demonstrated for any new wireless communication facility through submission, at the time of application for the necessary permit or entitlement, of NIER calculations specifying NIER levels in the area surrounding the proposed facility. Calculations shall be made of expected NIER exposure levels during peak operation periods at a range of distances from fifty (50) to one thousand (1,000) feet, taking into account cumulative NIER exposure levels from the proposed source in combination with all other existing NIER transmission sources within a one-mile radius. This should also include a plan to ensure that the public world be kept at a safe distance from any NIER transmission source associated with the proposed wireless communication facility, consistent with the NIER standards of the FCC, or any potential future superceding standards."



Calculated Cumulative NIER Exposure Levels during Peak Operation Periods

Distance (feet) in direction of maximum level

Kr level (% min							
Distance (feet)	50	100	200	300	500	750	1,000
ground	0.57%	0.39%	0.79%	0.94%	0.63%	0.31%	0.18%
second floor	2.6%	3.8%	3.0%	1.8%	0.70%	0.31%	0.17%

Calculated using formulas in FCC Office of Engineering Technology Bulletin No. 65 (1997), considering terrain variations within 1,000 feet of site.

Maximum effective radiated power (peak operation) - 4,810 watts (cumulative)

Effective T-Mobile antenna height above ground - 42 feet

Other sources nearby - AT&T Mobility

Other sources within one mile - Sprint Nextel and MetroPCS on PG&E tower ¹/4-mile away No AM, FM, or TV broadcast stations No two-way stations close enough to affect compliance

Plan for restricting public access - Restrict access to rooftop



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DT Louis (Of limit)

TM05738A595.1 Figure 3A

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Calculated NIER Exposure Levels Within 1,000 Feet of Site for Operation of T-Mobile and AT&T Mobility



Aerial photo from Terraserver

Legend

blank - less than 1% of FCC public limit (*i.e.*, more than 100 times below) - 1.0% and above near ground level (highest level is 2.4%)

- 1.0% and above at second-floor level (highest level is 6.1%)

Calculated using formulas in FCC Office of Engineering Technology Bulletin No. 65 (1997), considering terrain variations within 1,000 feet of site. See text for further information.



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TM05738A595.1 Figure 3B

EAH HERNIKL

COUNTY OF SANTA CRUZ

Planning Department

INTEROFFICE MEMO

APPLICATION NO: 09-0133

Date: April 13, 2009

To: Sheila McDaniel, Project Planner

From: Larry Kasparowitz, Urban Designer

Re: Cellular antennae at Dominican Hospital, Santa Cruz

COMPLETENESS ITEMS

none

COMPLIANCE ISSUES

Provide a parapet screen (the same height as the existing mechanical equipment screen) – T Mobile equipment
and existing equipment must be screened (note that AT&T has a similar requirement and has been requested to
cooperate with this application)