Staff Report to the Zoning Administrator

Application Number: **06-0023**

Applicant: Evan Shepherd Reiff
Owner: Ray & Carmen Russo
APN: 031-021-74

Agenda Date: 4/21/06
Agenda Item #: 6
Time: After 10:00 a.m.

Project Description: Proposal to construct a new wireless communication facility on an existing commercial building. Includes 6 antennas, parapet wall, GPS and 2 roof-mounted equipment cabinets, all behind a new parapet wall.

Location: Property located two parcels north of the intersection of Soquel Ave. and Gross Rd. on the west side (9000 Soquel Ave.)

Supervisoral District: First District (District Supervisor: Janet Beautz)

Permits Required Amendment to Commercial Development Permit 87-1094

Staff Recommendation:

- Approval of Application 06-0023, based on the attached findings and conditions.
- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

Exhibits

A. Project plans
B. Findings
C. Conditions
D. Categorical Exemption (CEQA determination)
E. Assessor's parcel map
F. Zoning map
G. Comments & Correspondence

Parcel Information

Parcel Size:	36,154 square feet (estimate)
Existing Land Use - Parcel:	Commercial
Existing Land Use - Surrounding:	Commercial, Public & Community Facility and Residential
Project Access:	Soquel Avenue
Planning Area:	Live Oak

Land Use Designation:	C-0 (Office)
Zone District:	PA (Professional and Administrative Offices)
Coastal Zone:	__ Inside X Outside
Appealable to Calif. Coastal Comm.	__ ***Yes*** X No

Environmental Information

Geologic Hazards:	Not mapped/no physical evidence on site
Soils:	No soils report required
Fire Hazard:	Not a mapped constraint
Slopes:	N/A
Env. Sen. Habitat:	Not mapped/no physical evidence on site
Grading:	No grading proposed
Tree Removal:	No trees proposed to be removed
Scenic:	Adjacent to Highway 1, a scenic comdor
Drainage:	Existing drainage adequate
Archeology:	Not mapped/no physical evidence on site

Services Information

Urban/Rural Services Line:	X Inside __ Outside
Water Supply:	City of Santa Cruz Water District
Sewage Disposal:	Santa Cruz County Sanitation District
Fire District:	Central Fire Protection District
Drainage District:	Zone 5 Flood Control District

History

Commercial Development Permit **87-1094** allowed the construction of the existing two-story office building and parking area. Since this approval and the subsequent construction of the building, several change of occupancy permits have been issued to allow new tenants to occupy the building. The current proposal seeks to add a wireless communication facility hidden behind a new parapet wall to the building's roof.

Project Setting

The project site is located on a pie-shaped parcel fronting on Soquel Avenue where the road curves south away from Highway 1. Surrounding land uses include: Highway 1 to the north, office buildings to the east and west, and a single-family residential zone directly to the south. The project site's parking lot provides an approximately 60-foot buffer between the office building and the residential uses to the south. The office building is two stories in height and finished with horizontal wood siding painted a neutral color.

Zoning & General Plan Consistency

The subject property is an approximately **36,000** square foot lot, located in the PA (Professional

and Administrative Offices) zone district, a designation which allows commercial uses. The proposed wireless communication facility is an allowed use within the zone district and the project is consistent with the site's (C-0) Office General Plan designation.

Visual Impacts/Design Review

Because this parcel is adjacent to Highway 1, a scenic comdor, visual impacts are a critical consideration of this project. Vegetation and an earthen berm mostly screen the existing office building from Highway 1. The visual impact of the proposed wireless communication facility will be minimal in that it will be entirely obscured behind a new 3-foot parapet wall. The parapet wall will be finished with materials and paint to match the existing office building and will appear as an integral element of the building's design. Even with the three-foot increase in height resulting from the parapet wall, the building's overall height will be below the 35-foot height limit for the zone district. The County's Urban Designer has reviewed the proposed design and has found it to be in compliance with the County Design Review Ordinance.

To ensure that this project's long-term visual impact is minimized, several conditions of approval are proposed including allowing only manual lighting on a timer and a requirement that the parapet wall be maintained in good condition throughout the life of the building with the RF-transparent portions remaining indistinguishable from the rest of the parapet wall.

Although not required by County Code for this zone district, the applicant considered an alternative location at the existing Live Oak Business Park wireless communication facility. This site, however, was infeasible as it did not meet the coverage needs that the current proposal fulfills.

Radio Frequency (RF) Exposure

The maximum ambient RF exposure level anywhere on the ground will be .97% of the applicable RF exposure levels established by the Federal Communications Commission (FCC). Within the subject building, the maximum ambient RF level will be 1.4% of the public exposure limit, and the maximum calculated exposure level at any nearby residence will be .41% of the public exposure limit. The ambient RF exposure for the second floor of surrounding properties peaks at .41% of the FCC limit at about 200 feet away from the proposed wireless communication facility.

Areas of the subject building's roof may exceed the applicable exposure limit. Bilingual warning signs will be posted at all roof access points and in the non-ionizing electromagnetic radiation (NIER) hazard area. In addition, the existing roof access door will be required to be locked at all times except when authorized personnel are present.

Section 47 USC 332(c)(7)(iv) of the Telecommunications Act of 1996 forbids 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. The RF emissions of the proposed wireless communication facility comply with FCC standards.

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- **APPROVAL** of Application Number 06-0023, based on the attached findings and conditions.
- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

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

Report Prepared By: Annette Olson
Santa Cruz County Planning Department
701 Ocean Street, 4th Floor
Santa Cruz CA 95060
Phone Number: (831) 454-3134
E-mail: annette.olson@co.santa-cruz.ca.us

EXHIBIT A

5

metroPCS

RUSSO PROPERTY
SF16670-C
9000 SOQUEL AVENUE
SANTA CRUZ, CA 95062
SANTA CRUZ COUNTY

LANDLORD/OWNER

CONSTRUCTION MANAGER

LEASING

PLANNING

RF ENGINEER

NET OPS

UTILITIES

(44) APPROVALS

APPLICANT/LESSEE

COMPANY: METRO PCS, INC
ADDRESS: 1080 MARINA VILLAGE PKWY 4TH FLOOR
CITY, STATE, ZIP: ALAMEDA, CA 94501
CONTACT: KIRSTEN R. RUTHERFORD
PHONE: 510.747.1664
FAX: 510.748.1822

PROPERTY OWNER

COMPANY: RAY & CARMEN RUSSO
ADDRESS: 9000 SOQUEL AVENUE
CITY, STATE, ZIP: SANTA CRUZ, CA 95062
CONTACT: NELLO SANTACROCE
PHONE:
FAX:

SITE ACQUISITION

COMPANY: PEAC OCE ASSOCIATES
ADDRESS: 1900 HOLLIS ST. SUITE 8-1
CITY, STATE, ZIP: EMERYVILLE, CA 94608
CONTACT: STEVE RICHARD
PHONE: 631.906.9564
FAX: 510.746.1923

ZONING

COMPANY: PEAC OCE ASSOCIATES
ADDRESS: 1900 HOLLIS ST. SUITE 8-1
CITY, STATE, ZIP: EMERYVILLE, CA 94608
CONTACT: LYMAN SHEPHERD BEAM
PHONE: 831.345.2245
FAX: 831.438.0849

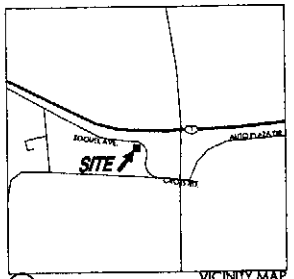
ARCHITECT

COMPANY: OMNI DESIGN GROUP
ADDRESS: 520 CROSS ST. SUITE 104
CITY, STATE, ZIP: SAN LUIS OBISPO, CA 93401
CONTACT: STEVE HANNAG
PHONE: 805.544.9730
FAX: 805.544.4327

ELECTRICAL ENGINEER

COMPANY: SAME
ADDRESS: 136 W. Arrellaga Ave. S.Ste 8
CITY, STATE, ZIP: Santa Barbara, CA 93101
CONTACT: John McHenry
PHONE: 805.899.2775
FAX: 805.569.2400

(34) PROJECT TEAM



(23) VICINITY MAP

DRIVING DIRECTIONS

FROM SAN JOSE, TAKE THE CA-17 TOWARD SANTA CRUZ. THEN TAKE THE CA-1 SOUTH EXIT TOWARD WATSONVILLE/MONTEREY. TAKE 41ST AVE. EXIT. TURN RIGHT. THEN TURN RIGHT ON CROSS RD. AND ANOTHER RIGHT ON SOQUEL AVE. ARRIVE AT 9000 SOQUEL AVE.

PROPERTY INFORMATION

AREA OF CONSTRUCTION:	TBA
EXISTING OCCUPANCY TYPE:	PARE/PROFESSIONAL & ADMINISTRATIVE
EXISTING CONSTRUCTION TYPE:	TBA
TELECOM FACILITY OCCUPANCY TYPE:	U
TELECOM FACILITY CONSTRUCTION TYPE:	TBA
CURRENT ZONING:	-
A.P.N.:	031-021-74

HANDICAP REQUIREMENTS:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.

PROJECT DESCRIPTION

METRO PCS PROPOSES TO INSTALL (12) OUTDOOR EQUIPMENT CABINETS ON NEW WOOD PLATFORM ON BUILDING ROOF, (6) ANTENNAS MOUNTED BEHIND A NEW 3 INCH ROOF SCREEN WALL, UTILITY CONNECTIONS & COAXIAL CABLES ROUTED THROUGH BUILDING.

(24) PROJECT INFORMATION

SHEET	DESCRIPTION
T-1	TITLE SHEET
A-1	PLANS
A-2	ELEVATIONS
Z-1	TOPOGRAPHIC/AREA MAP
Z-2	PROXIMITY MAP/AERIAL PHOTO

(13) SHEET INDEX

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 THE PLANS & / OR SPECIFICATIONS IS TO BE INTERPRETED AS PERMITTING WORK NOT CONFORMING TO THESE CODES.

1. CALIFORNIA ADMINISTRATIVE CODE (PART 1, TITLE 24 & 25) 2005
2. UNIFORM BUILDING CODE 1997 / CALIFORNIA BUILDING CODE 2001
3. UNIFORM MECHANICAL CODE 1997
4. ANSI/EIA-222-F LIFE SAFETY CODE NFPA-101-1999
5. CALIFORNIA PLUMBING CODE 2001
6. NATIONAL ELECTRIC CODE 1996 / CALIFORNIA ELECTRIC CODE 2001
7. LOCAL BUILDING CODE
8. CITY/COUNTY ORDINANCES

(14) CODE COMPLIANCE

metroPCS
METRO PCS, INC.
1080 MARINA VILLAGE PARKWAY
4th FLOOR
ALAMEDA, CA 94501
PHONE: 510.523.2610
FAX: 510.748.1822

ARCHITECT:
OMNI DESIGN GROUP, INC.

CONSULTANT:

SEAL:

REV.	DATE	DESCRIPTION	BY
	12/14/05	ISSUED FOR 90% ZONING	JMH
	12/20/05	ISSUED FOR 100% ZONING	SH

DRAWN BY:	CHK:	APV:
CJP	SH	

CURRENT ISSUE DATE: 12/20/05

ISSUED FOR: 100% ZONING

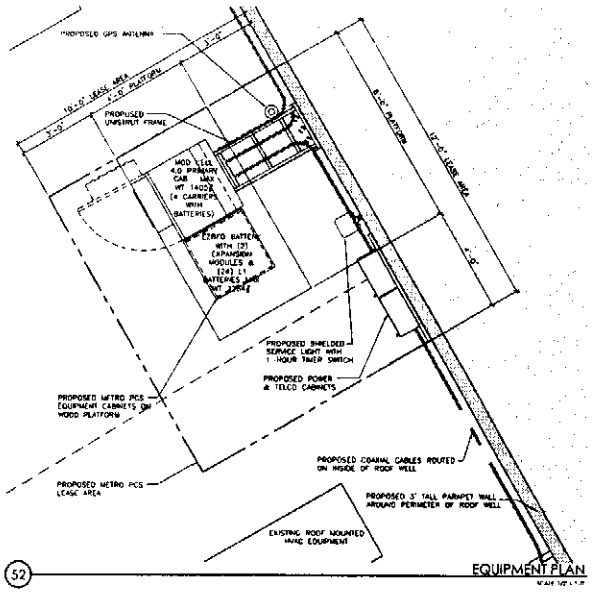
PROJECT INFORMATION:
RUSSO PROPERTY
SF16670-C
9000 SOQUEL AVENUE
SANTA CRUZ, CA 95062
COUNTY OF SANTA CRUZ
APN: 031-021-74

SHEET TITLE: TITLE SHEET

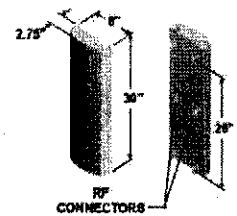
SHEET NUMBER: **T-1** REVISION:

855-46A

EXHIBIT A



52 EQUIPMENT PLAN

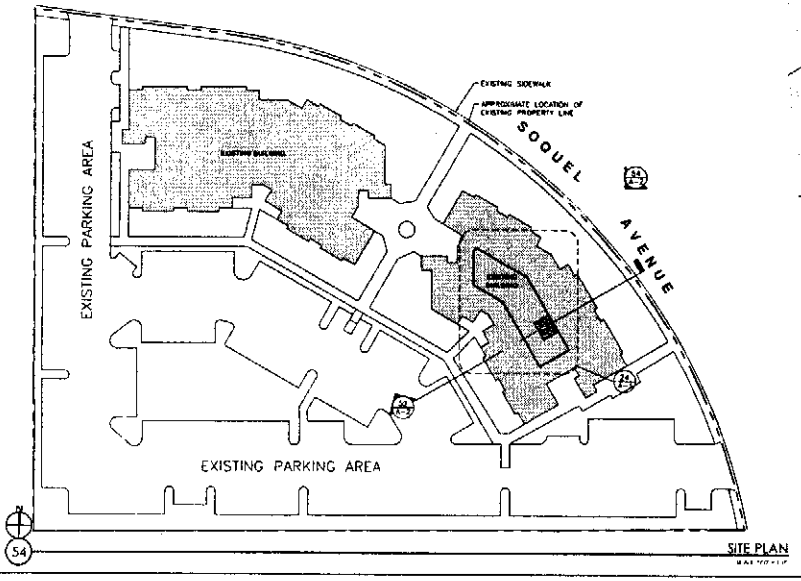


31 ANTENNA DETAIL

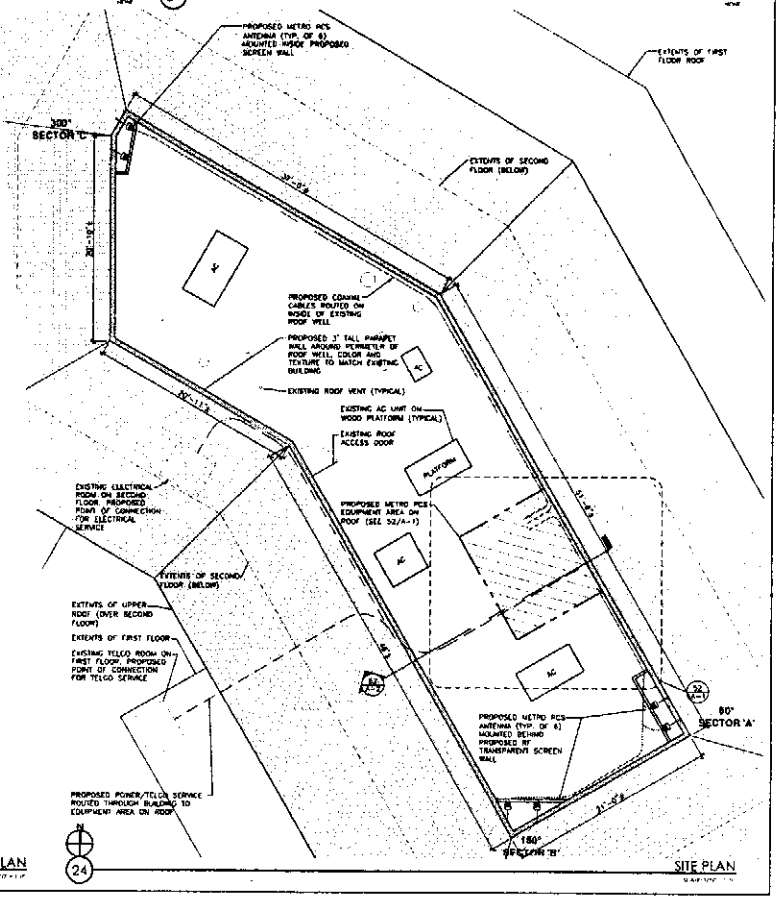
ANTENNA SECTOR	AZIMUTH	ANTENNA TYPE	ANT. PER SECTOR	CABLE LENGTH	CABLE SIZE	CABLE#/ PORT#	COLOR CODE	MECH DOWNTILT	NOTES
A (ALPHA)	80°	RR65-17-00DPC2	2	70'±	7/8"±	TX/RX: ALPHA 1/PORT 1	RED	-	-
						TX: ALPHA 2/PORT 2	RED WHITE		
B (BETA)	180°	RR65-17-00DPC2	2	13'±	7/8"±	TX/RX: BETA 1/PORT 3	BLUE	-	-
						TX: BETA 2/PORT 4	BLUE WHITE		
C (GAMMA)	300°	RR65-17-00DPC2	2	80'±	7/8"±	TX/RX: GAMMA 1/PORT 5	GREEN	-	-
						TX: GAMMA 2/PORT 6	GREEN WHITE		
GPS	UP	LUCENT	1	5'±	---	TX/RX PORT 7	NONE		-

NOTE:
1. ALL AZIMUTHS REFERENCE TRUE NORTH. ALL ELEVATIONS REFERENCE ADJACENT GRADE

21 RF DATA CHART



54 SITE PLAN



24 SITE PLAN

metroPCS
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ARCHITECT:
OMNI DESIGN GROUP, INC.

CONSULTANT:

SEAL:

REV.:	DATE	DESCRIPTION:	BY
	12/14/05	ISSUED FOR 90% ZONING	JMM
	12/20/05	ISSUED FOR 100% ZONING	SH

DRAWN BY:	CHK.	APV.
CJP	SH	

CURRENT ISSUE DATE:
12/20/05

ISSUED FOR:
100% ZONING

PROJECT INFORMATION:
RUSSO PROPERTY
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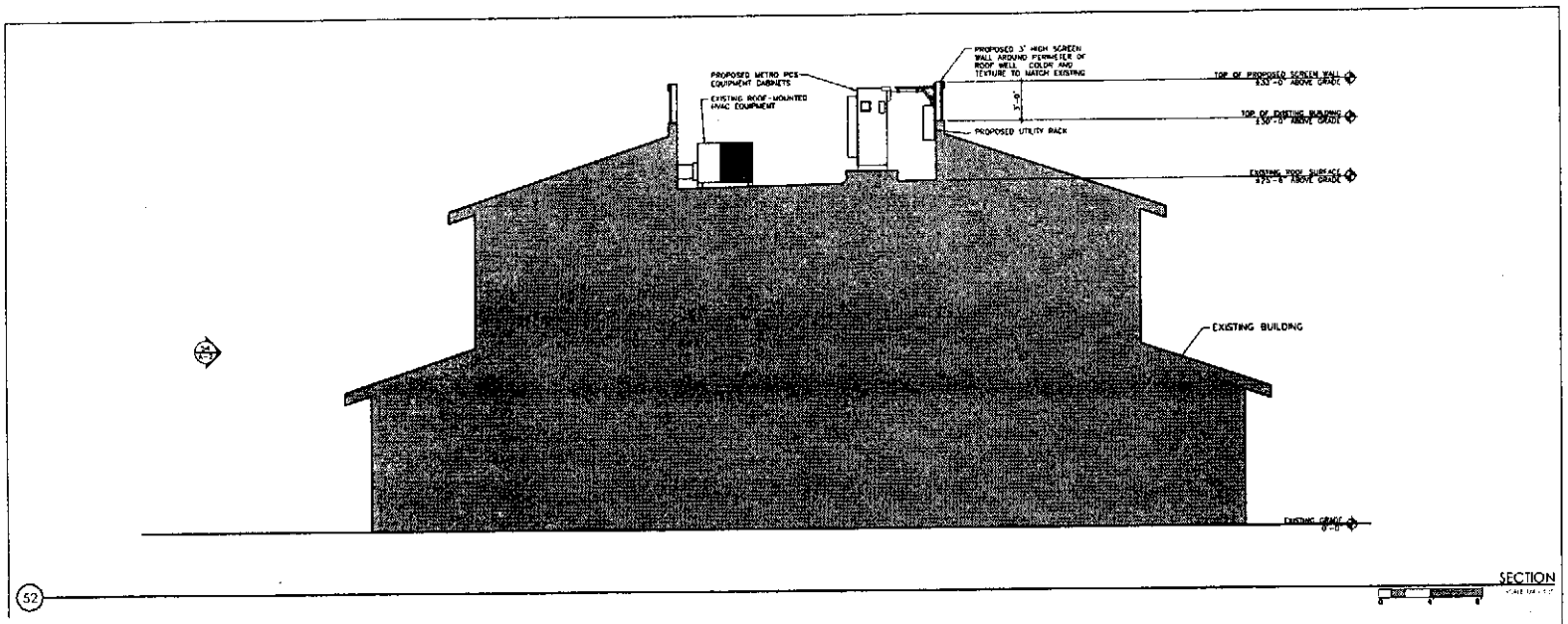
9000 SOQUEL AVENUE
SANTA CRUZ, CA 95062
COUNTY OF SANTA CRUZ
APN: 031-021-74

SHEET TITLE:
PLANS

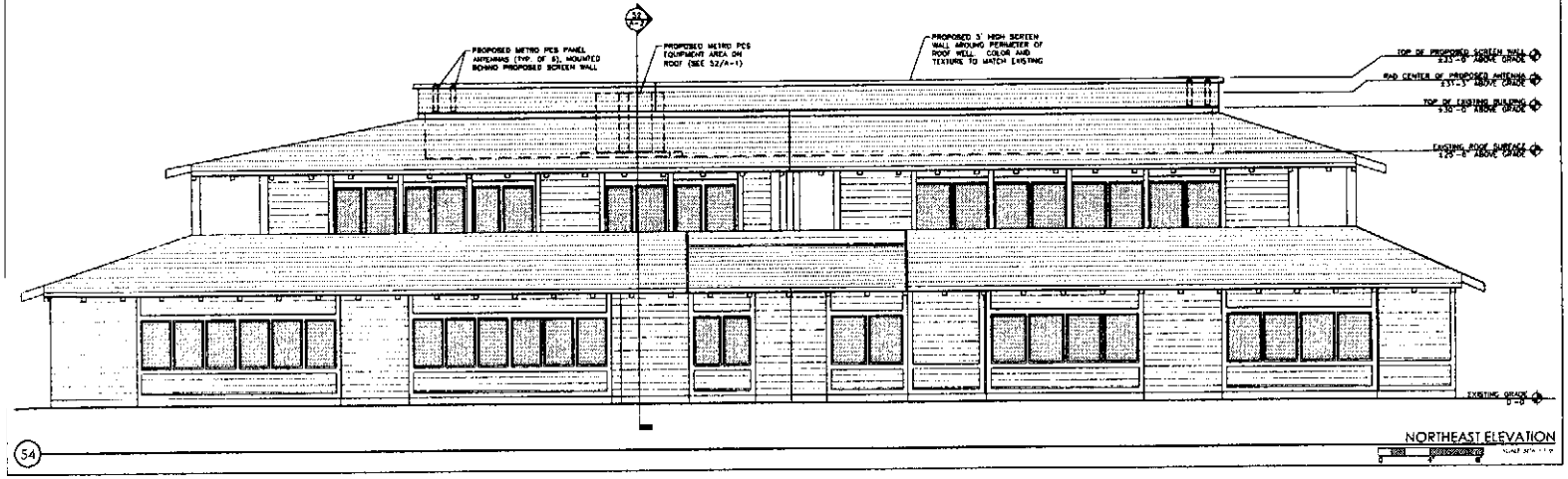
SHEET NUMBER: **A-1** REVISION:

855-46A

EXHIBIT A



52 SECTION



54 NORTHEAST ELEVATION

metroPCS

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FAX: 510.748.1823

ARCHITECT
OMNI
CONSULTANT
EAL

REV.:	DATE:	DESCRIPTION:	BY:
	11/14/05	ISSUED FOR 90% ZONING	AMM
	12/20/05	ISSUED FOR 100% ZONING	SH

DRAWN BY:	CHK.:	APV.:
CJP	SH	

CURRENT ISSUE DATE:
12/20/05

ISSUED FOR:
100% ZONING

PROJECT INFORMATION:
RUSSO PROPERTY
SF16670-C
9000 SOQUEL AVENUE
SANTA CRUZ, CA 95062
COUNTY OF SANTA CRUZ
APN: 031-021-74

SHEET TITLE:
ELEVATIONS

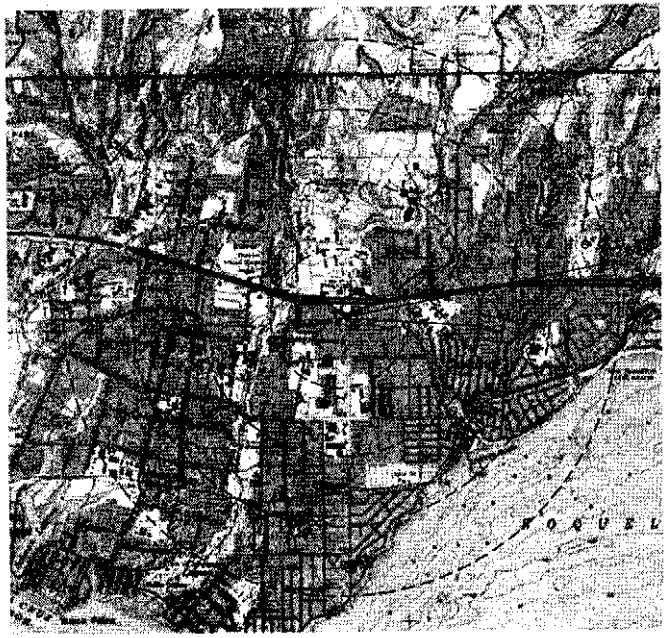
SHEET NUMBER: **A-2** REVISION

855-46A

7

EXHIBIT A

8



TOPOGRAPHIC/AREA MAP

SCALE: 1" = 2000'
0 1000' 2000' 4000'

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1080 MARINA VILLAGE PARKWAY
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PHONE: 510.523.2610
FAX: 510.748.1823

ARCHITECT:

OMNI

CONSULTANT:

SEAL:

REV.:	DATE:	DESCRIPTION:	BY:
	12/14/05	ISSUED FOR 90% ZONING	JNW
	12/20/05	ISSUED FOR 100% ZONING	SH

DRAWN BY:	CHK.:	APV.:
JNW	SH	

CURRENT ISSUE DATE:
12/20/05

ISSUED FOR:
100% ZONING

PROJECT INFORMATION:
RUSSO PROPERTY
SF16670-C
9000 SOQUEL AVENUE
SANTA CRUZ, CA 95062
COUNTY OF SANTA CRUZ
APN: 031-021-74

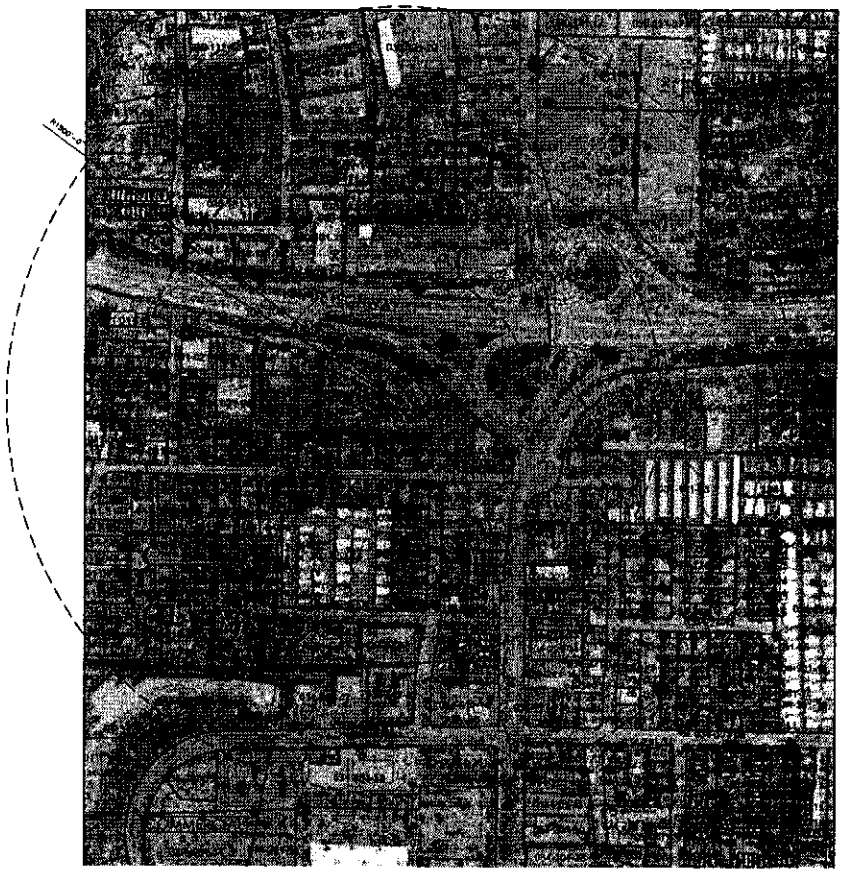
SHEET TITLE:
TOPOGRAPHIC/AREA MAP

SHEET NUMBER: REVISION:
Z-1

855-46A

EXHIBIT A

9



PROXIMITY MAP/AERIAL PHOTO

0 100 200 400

54

metroPCS

METRO PCS, INC
1080 MARINA VILLAGE PARKWAY
4th FLOOR
ALAMEDA, CA 94501
PHONE: 510.523.2610
FAX: 510.745.1823

ARCHITECT:

OMNI DESIGN GROUP, INC.

CONSULTANT:

SEAL:

REV.:	DATE:	DESCRIPTION:	BY:
	11/16/05	ISSUED FOR 90% ZONING	JNW
	12/20/05	ISSUED FOR 100% ZONING	SH

DRAWN BY:	CHK.:	APV.
JNW	SH	

CURRENT ISSUE DATE:
12/20/05

ISSUED FOR:
100% ZONING

PROJECT INFORMATION:
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SANTA CRUZ, CA 95062
COUNTY OF SANTA CRUZ
APN: 031-021-74

SHEET TITLE:
PROXIMITY MAP/
AERIAL PHOTO

SHEET NUMBER: REVISION:
Z-2

855-46A

Application #: 06-0023
APN 031-021-74
Owner: Ray & Carmen Russo

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 wireless communication antennas and equipment cabinets will be hidden behind a new parapet wall. The proposal will not significantly affect any designated visual resources, including Highway 1, a scenic corridor. In addition, the project will not affect environmentally sensitive resources or any other significant County resource as its visual impact will be minimal.

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 the proposed site is not located in a prohibited or restricted area as set forth in Sections 13.10.661(b) and 13.10.661(c). As such, no alternative site analysis or alternative designs are required. Wireless communication facilities are an allowed use with the PA (Professional and Administrative Offices) zone 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 existing office building is a permitted use under Commercial Development Permit 87-1094. This application does not propose any alterations to the existing structure beyond the installation of the wireless communication facility and parapet wall as shown in Exhibit A.

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 and parapet wall will increase the existing structure's height just three feet to 33 feet which is less than the 35-foot height limit of the zone district. As such, the proposal will not create a hazard for aircraft in flight.

EXHIBIT B

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 maximum RF exposure levels within 1,000 feet of the proposed antennas will be less than 1.5% of the maximum public exposure limit as set by the FCC and California PUC standards.

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

The proposed wireless communication facility is not located within the coastal zone.

Application #: 06-0023
APN: 031-021-74
Owner: Ray & Carmen Russo

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 proposed wireless communication facility will comply with all FCC regulations and will be entirely hidden behind a new parapet wall so that the visual impact to neighboring properties and Highway 1 will be minimal. The proposed wireless communication facility will require a building and electrical permit to ensure structural safety and energy conservation. Security measures will be required to prevent people from accessing the antennas or equipment cabinets.

The proposed project will not result in inefficient or wasteful use of energy, in that the most recent and efficient technology available to provide wireless communication services will be required as a condition of this permit. Upgrades to more efficient and effective technologies will be required to occur as new technologies are developed.

The proposed wireless communications facility will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the structure meets all current setbacks and the zone district's height limit that ensure access to light, air, and open space in the neighborhood.

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 wireless communications facility and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the PA (Professional and Administrative Offices) zone district. The primary use of the property will continue to be one office building that meets all current site standards for the zone district.

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 proposed commercial use is consistent with the use and density requirements specified for the Office (C-0) land use designation in the County General Plan.

The proposed wireless communication facility is compatible with adjacent uses in that the wireless communications facility was subject to Design Review and its design was accepted by the County's Urban Designer as specified in Policy 8.5.2 (Commercial Compatibility With Other Uses).

The proposed project complies with General Plan Policy **5.10.3** (Protection of Public Vistas), in

that no views of the beach, ocean, or other significant vistas can be viewed past or across the subject property and the proposed parapet wall will not significantly impact the vista fiom Highway 1.

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 adequate electrical service will be available to the facility, and no additional traffic will be generated beyond occasional trips for maintenance and inspection of the facility.

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 wireless communication facility will be ancillary to the primary use of the property as an office building, and the wireless communication facility will be entirely hidden behind a new parapet wall which will appear to be an integral design element of the building.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.1**1.070** through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed wireless communication facility and associated equipment cabinet will be hidden behind a new parapet wall designed to appear **as** an integral element of the office building. This will minimize the visual impacts to the surrounding properties and will not reduce or visually impact available open space in the surrounding area.

Conditions of Approval

Exhibit A: Project plans, five sheets, drawn by Omni Design Group, Inc., dated 12/14/06 and revised 12/20/06.

I. This permit authorizes the construction of a Wireless Communications Facility and parapet wall. 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. Obtain a Building Permit fiom the Santa Cruz County Building Official.

C. The applicant shall obtain approval fiom the California Public Utilities Commission and the Federal Communications Commission to install and operate this facility.

D. To ensure that the storage of hazardous materials on the site does not result in adverse environmental impacts, the applicant shall submit a Hazardous Materials Management Plan for review and approval by the County Department of Environmental Health Services.

II. Prior to issuance of a Building Permit the applicant/owner shall:

A. Submit Final Architectural Plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. The final plans shall include the following additional information:

1. Identify finish materials and paint color of the parapet wall.

2. Details showing compliance with fire department requirements.

3. All new electric and telecommunications lines shall be placed underground.

B. To guarantee that the parapet wall remains in good visual condition and to ensure the continued provision of mitigation of the visual impact of the wireless communications facility, the applicant shall submit a maintenance program prior to building permit issuance which includes the following:

1. A signed contract for maintenance with a company that provides for annual visual inspection and follow-up repair, painting, and resurfacing as necessary.

C. Submit a plan review letter fiom the project acoustical engineer with recommended noise attenuation methods, if necessary, to reduce the noise level at the property line to the level specified in General Plan policies 6.9.1 and 6.9.4.

D. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services.

E. Meet all requirements and pay any applicable plan check fee of the Central Fire Protection District.

III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:

A. All site improvements shown on the final approved Building Permit plans shall be installed.

B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.

C. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource **or** a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.

IV. Operational Conditions

A. The project's noise level must be in compliance with General Plan policies 6.9.1 and 6.9.4. Should the noise level exceed the limits established in the General Plan policy 6.9.1 and 6.9.4, sound attenuation will be required to bring the project into compliance.

B. **A** Planning Department review that includes a public hearing shall be required for any future co-location at this wireless communications facility.

C. Future wireless communication facilities which are to be co-located on the subject roof may be required to provide a structural engineer's evaluation of the load-carrying capacity of the roof.

D. The non-ionizing electromagnetic radiation (NIER) hazard zone will be posted with bilingual NIER hazard warning signage that also indicates the facility operator and a 24-hour emergency contact who is authorized by the applicant to act on behalf of the applicant regarding an emergency situation. In addition, bilingual signs must be posted on all access points to the roof.

E. Access to the roof must be locked at all times except **when** authorized personnel are present. The antennas must not be accessible to the public. **A** rapid entry (KNOX) system shall **be** installed if required by the Fire Chief.

F. In conformance with the recommendations of the January 6, 2006 Hammet & Edison, Inc. report, no access within five feet in front of the antennas themselves will be allowed while the site is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met.

G. Any modification in the type of equipment shall be reviewed and acted on by the Planning Department staff. The County may deny or modify the conditions at this time, or the Planning Director may refer it for public hearing before the Zoning Administrator.

H. The parapet wall shall be permanently maintained **and** replacement materials and/or paint shall be applied **as** necessary. The RF transparent material must be indistinguishable from the non-transparent portions of the parapet wall.

I. Within 90 days of the commencement of normal operations, or within 90 days after any modification to power output of the facility, a report must be submitted documenting the non-ionizing electromagnetic radiation (NIER) emissions of the project in order to verify compliance with the FCC's NIER standards.

J. 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 on timer. The site shall be unlit except when authorized personnel are present at night.

K. If future technological advances would allow for reduced visual impacts resulting from the proposed telecommunication facility, the applicant agrees through accepting the terms of this permit to make those modifications which would allow for 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 applicant agrees to 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 vegetation.

L. **If, as** a result of future scientific studies and alterations of industry-wide standards resulting from those studies, substantial evidence is presented to Santa Cmz 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.

M. 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.

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. Settlement. 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. Successors Bound. "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 two years from the effective date unless you obtain the required permits and commence construction.**

Approval Date: _____

Effective Date: _____

Expiration Date: _____

-· +—+— *E*—

Don Bussey
Deputy Zoning Administrator

Annette Olson
Project **Planner**

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.

EXHIBIT D

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: 06-0023
Assessor Parcel Number: 031-021-74
Project Location: 9000 Soquel Avenue

Project Description: Proposal to construct a new wireless communication facility on an existing **commercial building.**

Person or Agency Proposing Project: Evan Shepherd Reiff

Contact Phone Number: (831) 345-2245

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. ____ **Ministerial Project** 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 3 – New Construction **or** Conversion of Small Structures (Section 15303)

F. Reasons why the project is exempt:

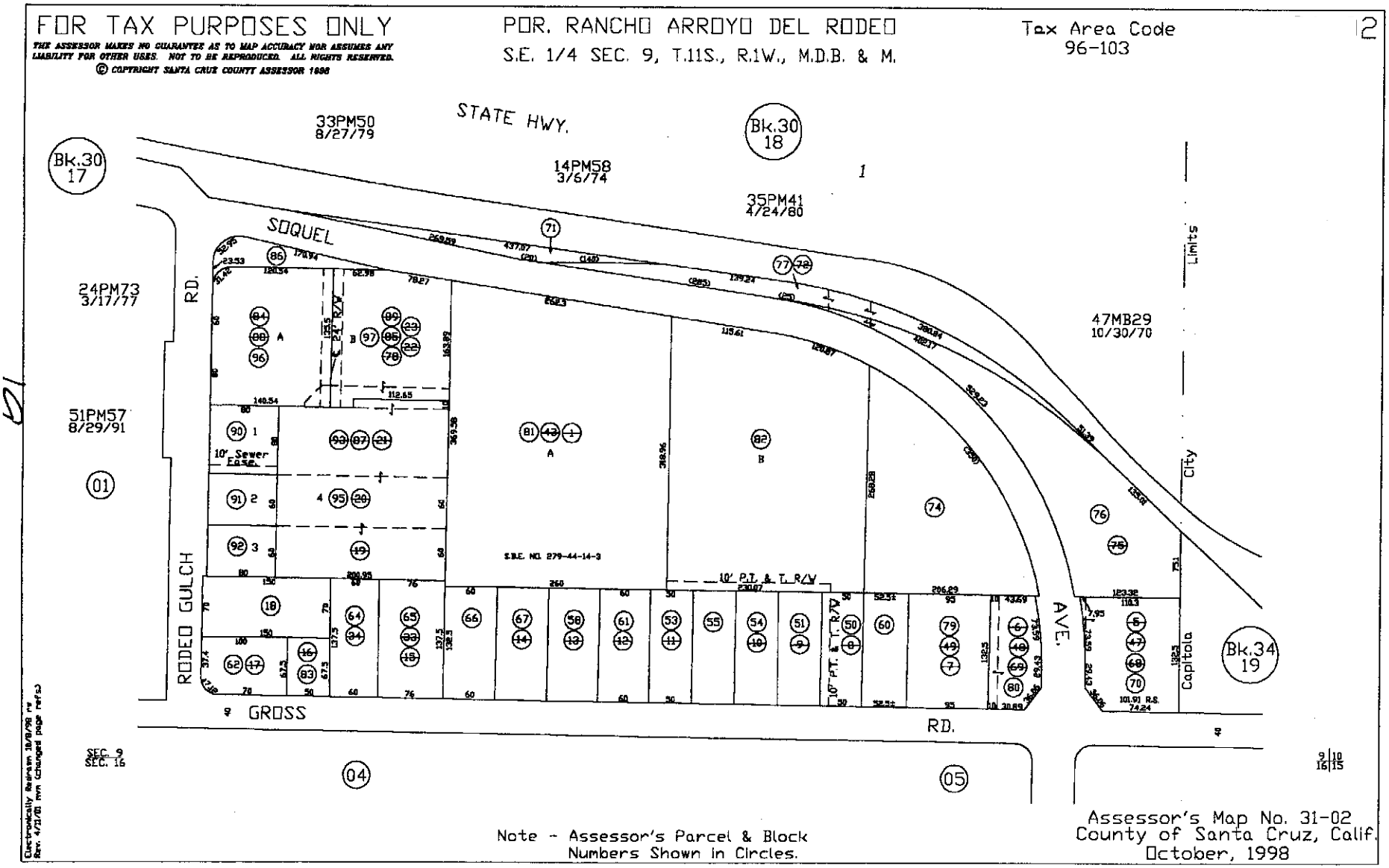
New construction **of** small structures.

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

Date: *3 / 7 / 0 6*

Annette Olson, Project Planner

EXHIBIT D


FOR TAX PURPOSES ONLY
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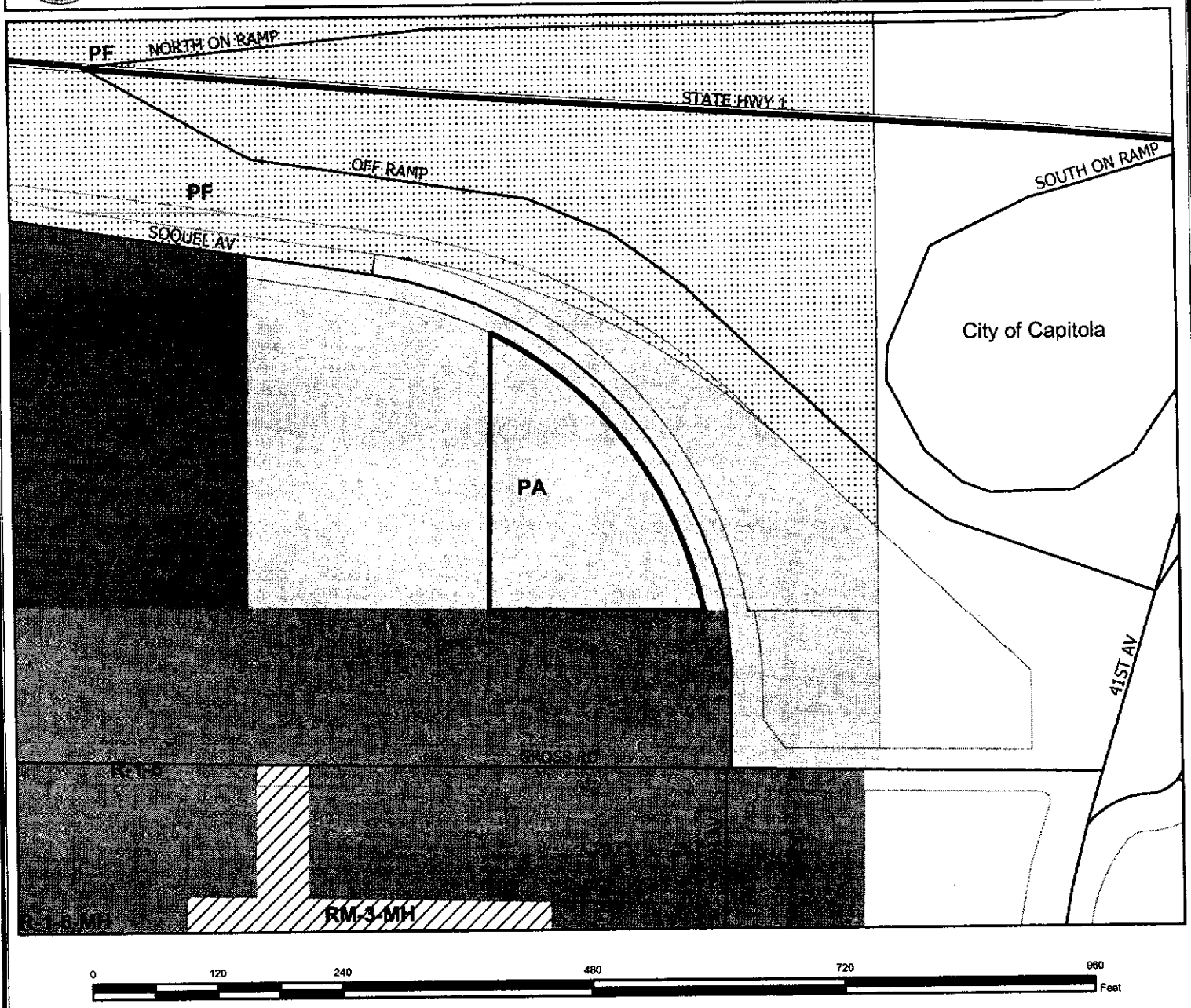
POR. RANCHO ARROYO DEL RODEO
S.E. 1/4 SEC. 9, T.11S., R.1W., M.D.B. & M.
Tax Area Code
96-103
2
STATE HWY.
33PM50
8/27/79
14PM58
3/6/74
35PM41
4/24/80
47MB29
10/30/70
24PM73
3/17/77
51PM57
8/29/91
Bk.30
17
Bk.30
18
Bk.34
19
SOQUEL
RODEO GULCH
RD.
GROSS
AVE.
Capitola
City Limits
10' Sewer Ease.
S.B.E. NO. 279-44-14-3
10' P.T. & T. R/W
24' R/W
SEC. 9
SEC. 16
01
04
05
Note - Assessor's Parcel & Block Numbers Shown in Circles.
Assessor's Map No. 31-02
County of Santa Cruz, Calif.
October, 1998

EXHIBIT E

Zoning Map



0 120 240 480 720 960 Feet

Legend

- APN 031-021-74
- Streets
- State Highways
- Assessors Parcels
- COMMERCIAL-PROF OFFICE (PA)
- RESIDENTIAL-SINGLE FAMILY (R-1)
- COMMERCIAL SERVICE (C-4)
- PUBLIC FACILITY (PF)
- RESIDENTIAL-MULTI FAMILY (RM)

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Map Created by
County of Santa Cruz
Planning Department
March 2006

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EXHIBIT F

COUNTY OF SANTA CRUZ Planning Department

MEMORANDUM

Application No: 06-0023

Date: February 16, 2006

To: Annette Olson, Project Planner

From: Lawrence Kasparowitz, Urban Designer

Re: Design Review for a new cellular antennae installation at 9000 Soquel Avenue, Santa Cruz

GENERAL PLAN / ZONING CODE ISSUES

Desian Review Authority

13.11.040 Projects requiring design review.

(e) All commercial remodels or new commercial construction.

Evaluation Criteria	Meets criteria in code(✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Compatible Site Design			
Location and type of access to the site			N/A
Building siting in terms of its location and orientation			N/A
Building bulk, massing and scale	✔		
Parking location and layout			N/A
Relationship to natural site features and environmental influences			N/A
Landscaping			N/A
Streetscape relationship			N/A
Street design and transit facilities			N/A
Relationship to existing structures	✔		
Views			
Protection of public viewshed	✔		

EXHIBIT G

13.11.073Building design.

Evaluation Criteria	Meets criteria In code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Compatible Building Design			
Massing of building form	✔		
Building silhouette	✔		
Spacing between buildings	✔		
Street face setbacks			N/A
Character of architecture	✔		
Building scale	✔		
Proportion and composition of projections and recesses, doors and windows, and other features	✔		
Location and treatment of entryways			N/A
Finish material, texture and color	✔		
Scale			
Scale is addressed on appropriate levels	✔		
Design elements create a sense of human scale and pedestrian	✔		
Building Articulation			
Variation in wall plane, roof line, detailing, materials and siting.	✔		

COUNTY OF SANTA CRUZ
INTEROFFICE CORRESPONDENCE

DATE: February **10,2006**
TO: Annette Olson, Planning Department, Project Planner
FROM: Melissa Allen, Planning Liaison to the Redevelopment Agency
SUBJECT: Application **#06-0023**, APN 031-021-74, 9000 Soquel Avenue, Live *Oak*

The applicant is proposing to construct a new wireless communication facility **on** an existing commercial building, to include ***6*** antennas, parapet wall, GPS, and **2** roof-mounted equipment cabinets, all behind a new parapet wall. The project requires an Amendment to Commercial Development Permit 87-1094. The property is located two parcels north **of** the intersection **of** Soquel Avenue and Gross Road, on the west side (9000 Soquel Avenue).

Other than encouraging design review and scenic considerations of views from Soquel Avenue (a major County roadway) and from the state highway relative to the increased height of *the* building with the 3-foot parapet addition and compatibility with the existing building to the west, the Redevelopment Agency (RDA) has no additional comments on this application.

The issues referenced above should be evaluated as part **of** this application and/or addressed by conditions of approval. RDA does not need to see future routings of this application. RDA appreciates this opportunity to comment. Thank **you.**

cc: Paul Rodrigues, RDA Urban Designer

EXHIBIT G

CENTRAL
FIRE PROTECTION DISTRICT
of Santa Cruz County
Fire Prevention Division

930 17th Avenue, Santa Cruz, CA 95062
phone (831) 479-6843 fax (831) 479-6847

Date:	January 24,2006
To:	Ray and Carmen **RUSSO**
Applicant:	**Evan Shepherd Reiff**
From:	Tom Wiley
Subject:	**06-0023**
Address	**9000 Soquel Ave.**
APN:	031-021-74
OCC:	0568
Permit:	20060011

We have reviewed plans for the above subject project. District requirements appear to have been met.

The job copies of the building and fire systems plans and permits must **be** on-site during inspections.

Submit a check in the amount of $100.00 for this particular plan check, made payable to Central Fire Protection District. A $35.00 **Late *Fee*** may ***be*** added to your plan check fees if payment is not received within 30 days of the date of this Discretionary Letter. INVOICE MAILED TO APPLICANT. Please contact the Fire Prevention Secretary at (831) 479-6843 for total fees due for your project.

If you should have any questions regarding the plan check comments, please call me at (831) 479-6843 and leave a message, or email me at tomw@centralfpd.com. All other questions may be directed to Fire Prevention at (831)479-6843.

CC: File & County

As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source. Further, the submitter, designer, and installer agrees to hold harmless from any and all alleged claims to have arisen from any compliance deficiencies, without prejudice, the reviewer and the Central FPD of Santa Cruz County.
0568-012406

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of MetroPCS, a personal wireless telecommunications carrier, to evaluate the base station (Site No. SF16670C) proposed to be located at 9000 Soquel Avenue 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 Institute of Electrical and Electronics Engineers ("IEEE") Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes nearly identical 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 limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

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

General Facility Requirements

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

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 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 MetroPCS, including zoning drawings by Omni Design Group, Inc., dated December **14,** 2005, it is proposed to mount six EMS Model RR6517-00DPL2 directional panel PCS antennas behind a new fiberglass screen to be installed above the roof of the two-story building located at 9000 Soquel Avenue in Santa **Cruz.** The antennas would be mounted at the southwest, southeast and northwest comers of the roof **an** effective height of about 30 1/2 feet above ground, 5 feet above the roof, and would be oriented in pairs toward 90°T, 180°T, and 280°T. The maximum effective radiated power in any direction would be 1,890 watts. There are reported no other wireless telecommunications base stations installed nearby.

Study Results

For a person anywhere at ground, the maximum ambient RF exposure level due to the proposed Metro operation is calculated to be 0.0097 mW/cm^2, which is 0.97% of the applicable public exposure limit. The maximum calculated level inside of the subject building is 1.4% of the public exposure limit; the maximum calculated level at any nearby residence* is 0.41% 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. Areas on the roof of the subject building may exceed the applicable exposure limit. 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.

* Located at least 100 feet to the south, based on **aerial** photographs from Terraserver.

Recommended Mitigation Measures

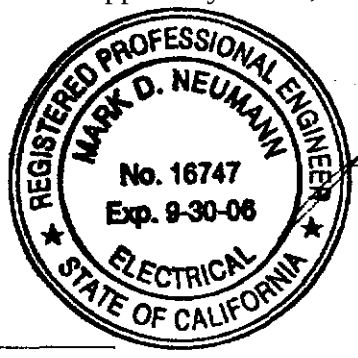
Due to their mounting locations, the Metro antennas are not accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within ***5*** feet in front of the Metro antennas themselves, such as might occur during building maintenance activities, should be allowed while the site is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Posting explanatory warning signs† at roof access location(s) and 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 base station proposed by MetroPCS at 9000 Soquel Avenue 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 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 No. 16747, which expires on September 30, 2006. This work has been carried out by him or under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



Mark D. Neumann, P.E.

January 6,2006

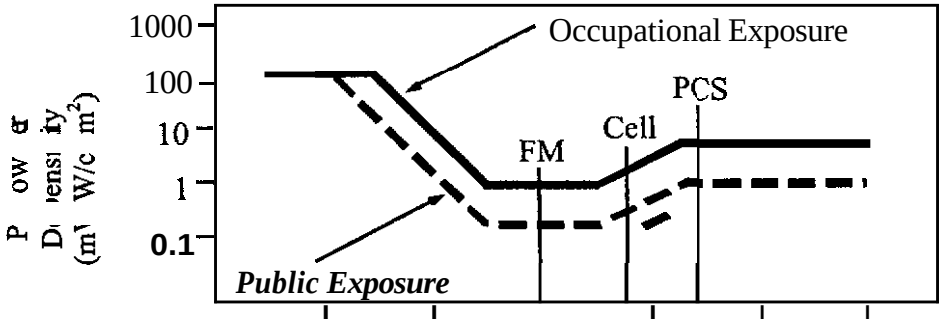
† Warning signs should comply with ANSI **C95.2** color, symbol, and content conventions. In addition, contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, 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, which are nearly identical to the more recent Institute of Electrical and Electronics Engineers Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, *3* kHz to 300 GHz." These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

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

Freauencv	Electromagnetic Fields (f is freauencv of emission in MHz)					
Applicable Range (MHz)	**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*	**4.891f**	*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**	*√f/238*	f/300	*f/1500*
1,500 – 100,000	**137**	*61.4*	**0.364**	***0.163***	***5.0***	***1.0***



RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

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

Near Field.

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

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

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

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

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

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

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

Far Field.

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

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

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.

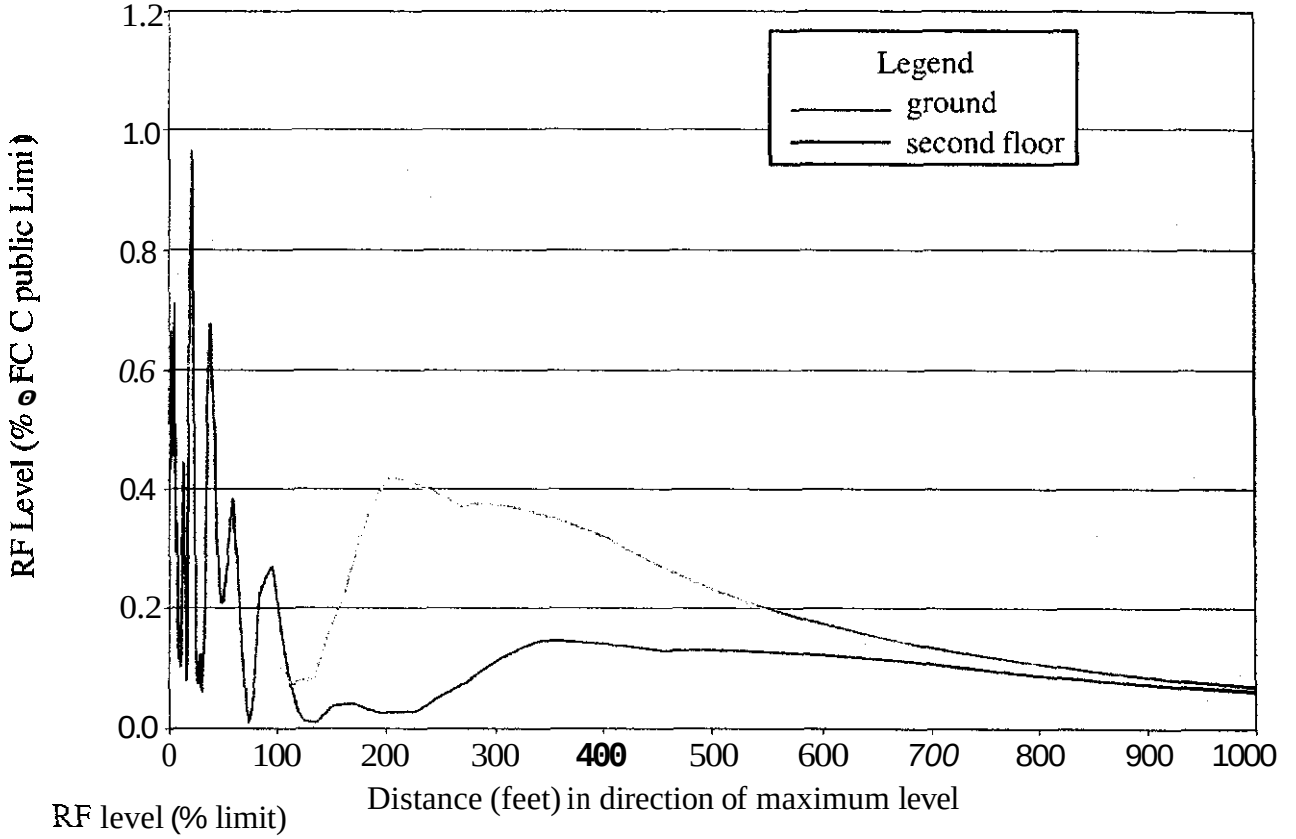
The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units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

MetroPCS • Proposed Base Station (Site No. SF16670C)
9000 Soquel Avenue • Santa Cruz, California

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 would 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



RF level (% limit)

Distance (feet)	50	100	200	300	500	750	1,000
ground	0.22%	0.21%	0.026%	0.11%	0.13%	0.096%	0.062%
second floor	-	0.12%	0.41%	0.37%	0.23%	0.12%	0.068%

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) - 1,890 watts

Effective Metro antenna height above ground - 30½ feet

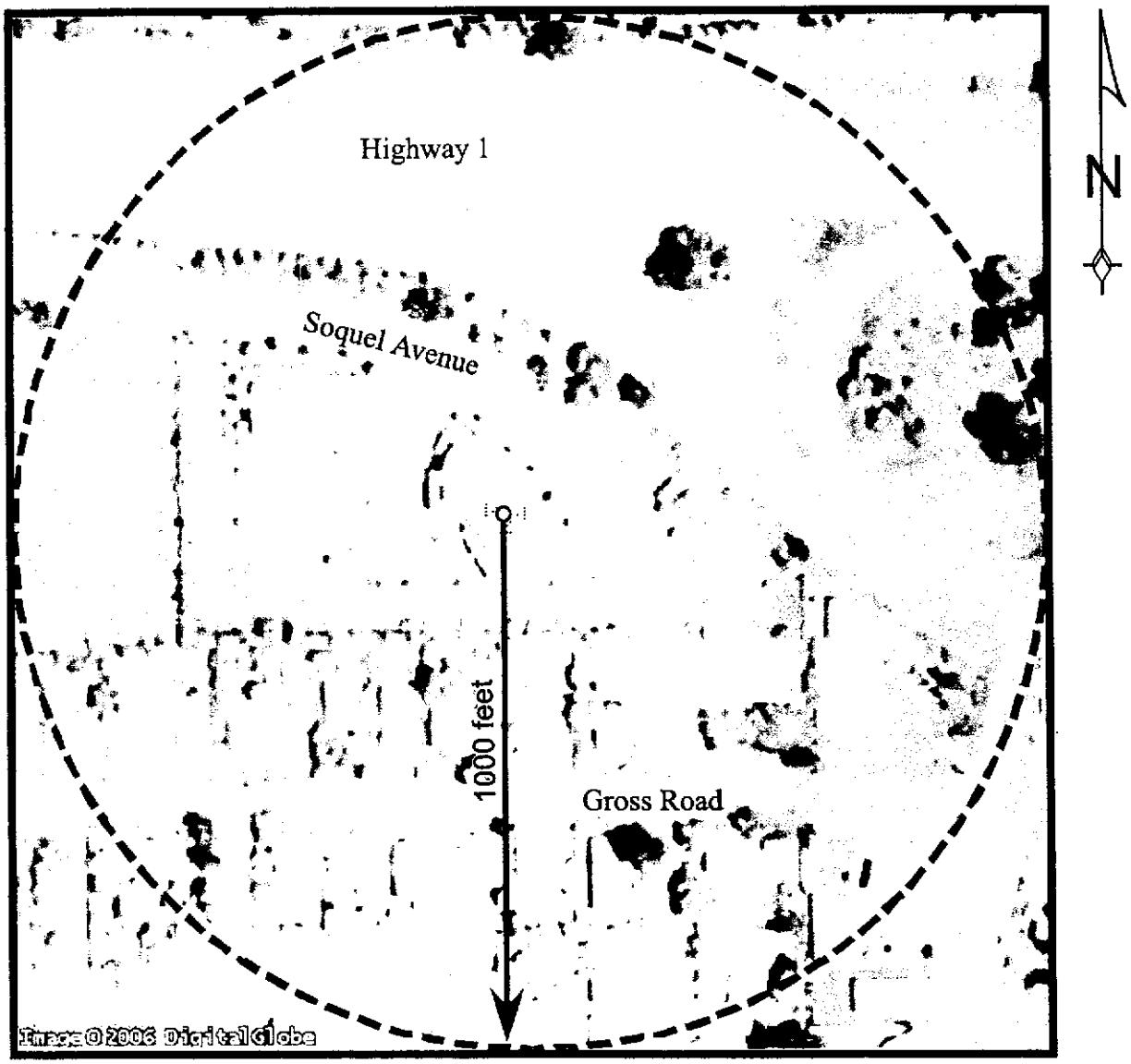
Other sources nearby - None

Other sources within one mile - No AM, FM, or TV broadcast stations
No two-way stations close enough to affect compliance

Plan for restricting public access - Antennas are mounted above the roof of a two-story building

Metro S • **Proposed Base Station *(Site* .SF16670C)**
9000 Soquel Avenue • Santa Cruz California

Calculated NIER Exposure Levels
Within 1,000 Feet of Proposed Site



Aerial photo from Terraserver

Legend
blank - less than 0.5% of FCC public limit (*i.e.*, more than 200 times below)
- 0.5% and above near ground level (highest level is 0.97%)
- 0.5% and above at 2nd floor level (highest level is 0.41%)

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.

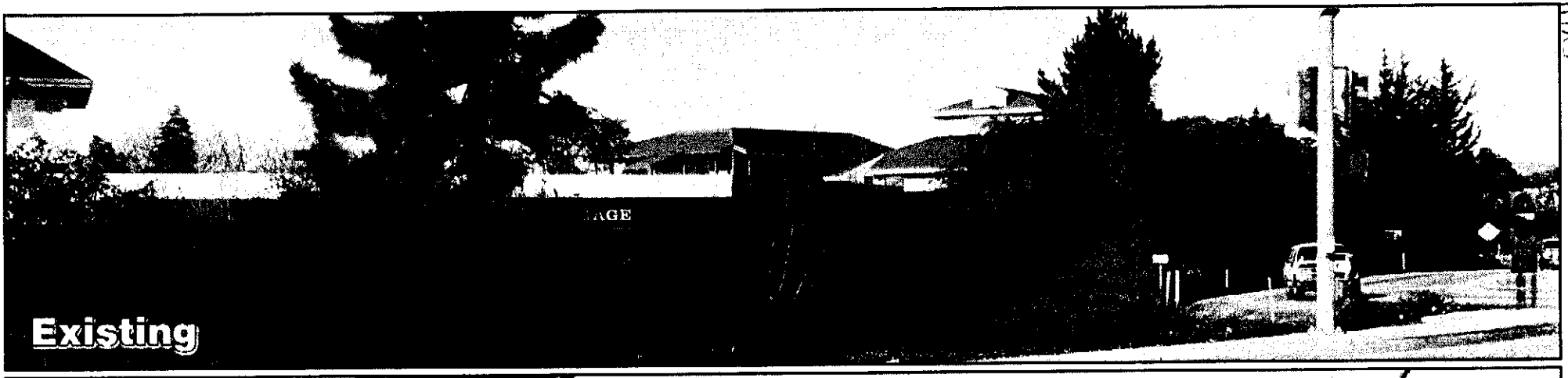
HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

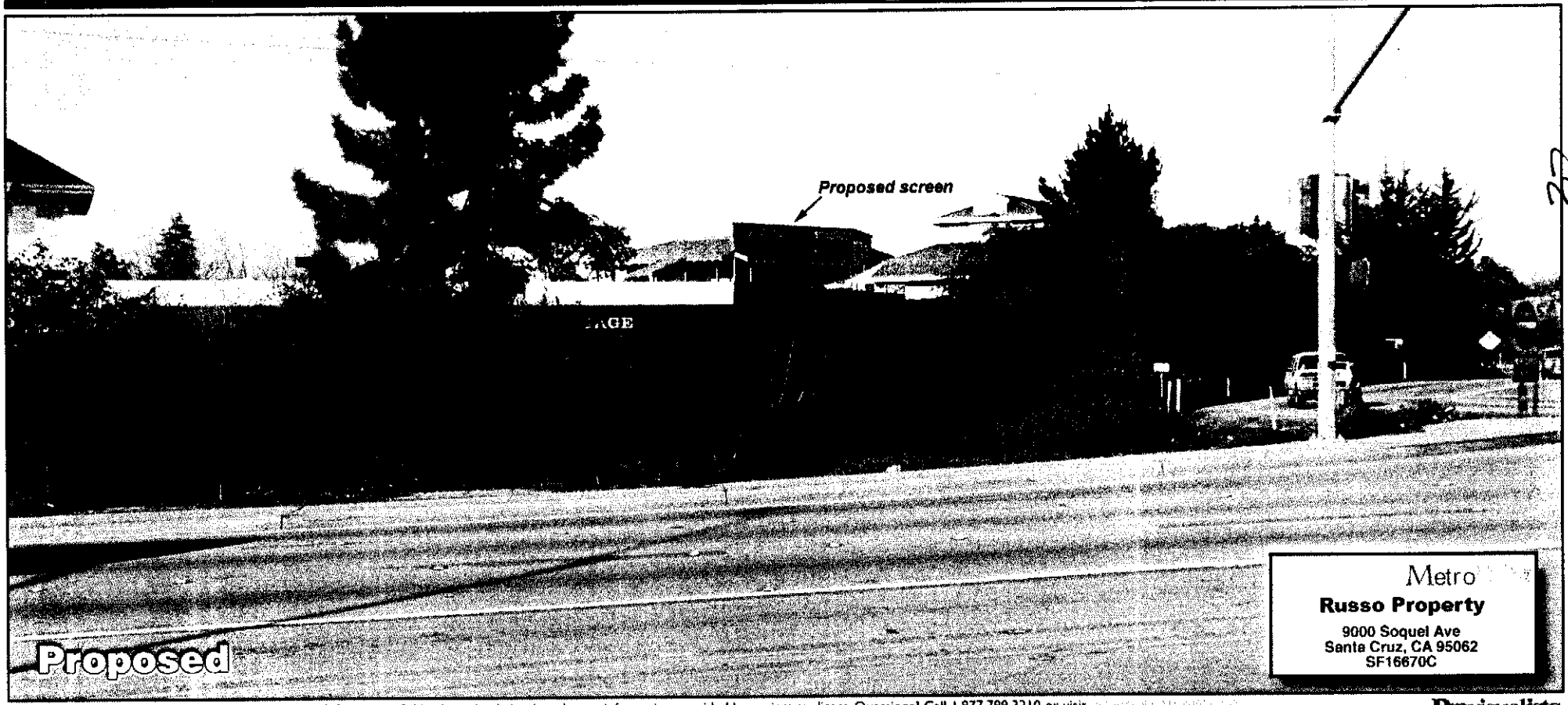
MP1670C595
Figure **3B**

EXHIBIT G

EXHIBIT G

Photosimulation of view looking west from 41st Ave, just south of Hwy 1-





Metro

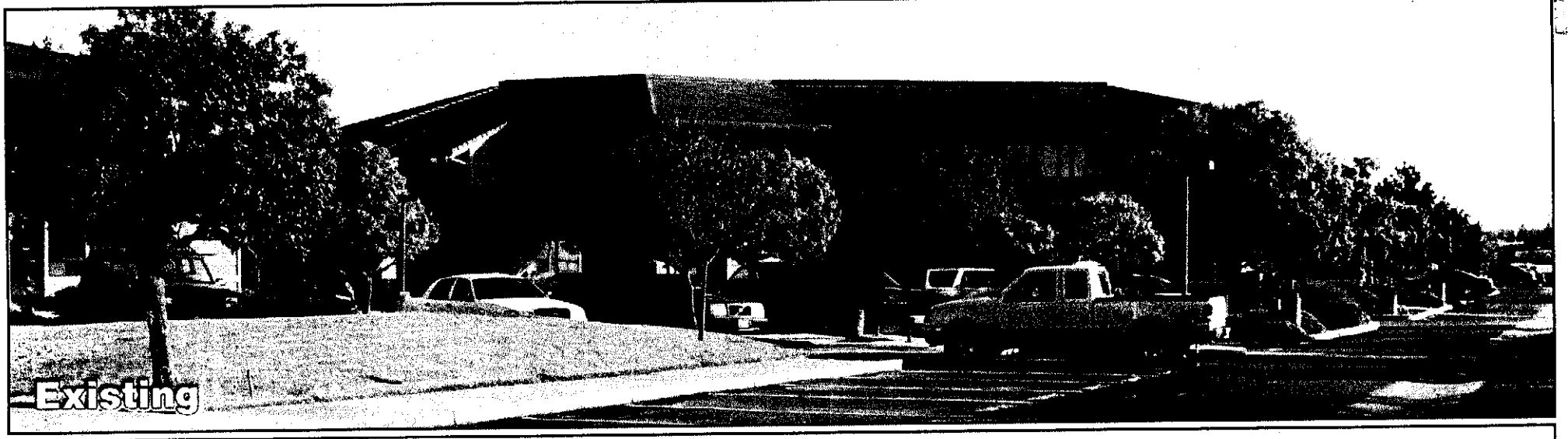
Russo Property

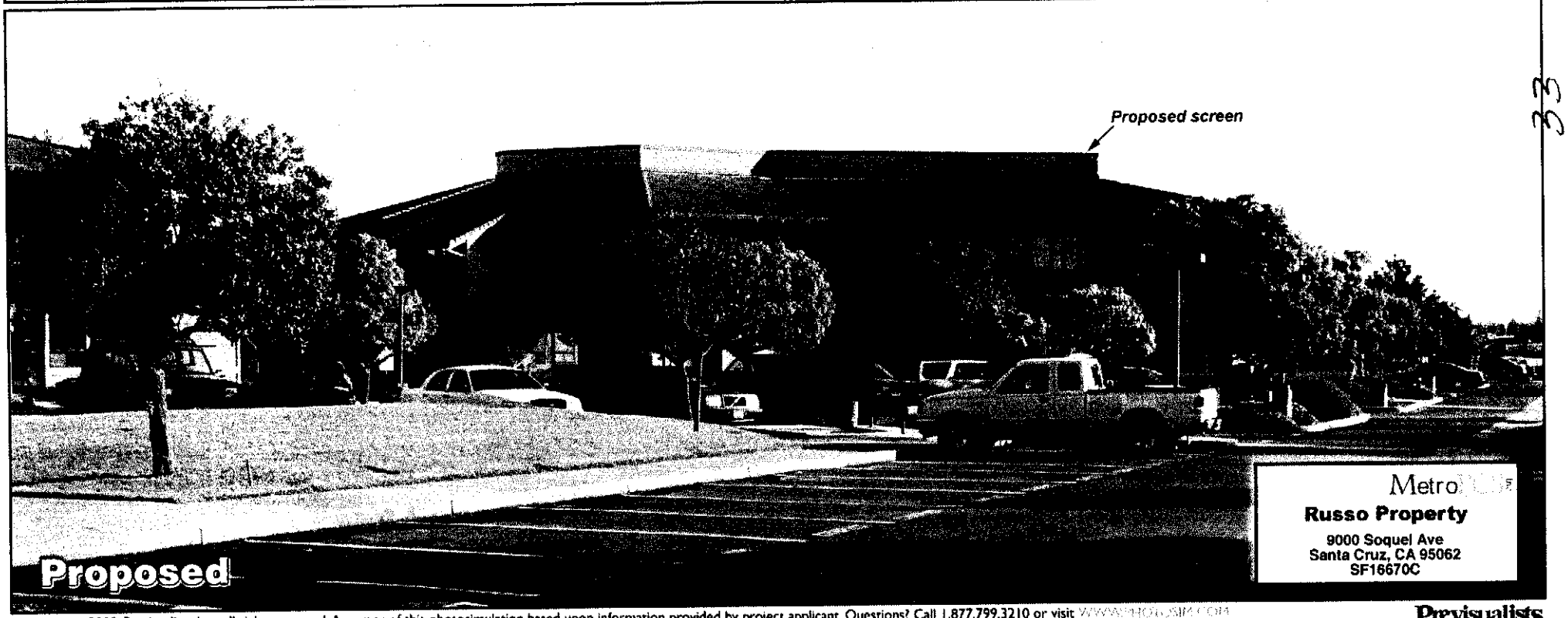
9000 Soquel Ave
Santa Cruz, CA 95062
SF16670C

Previsualists

EXHIBIT

Photosimulation of view looking northeast from the back corner of the parking lot.





Previsualists

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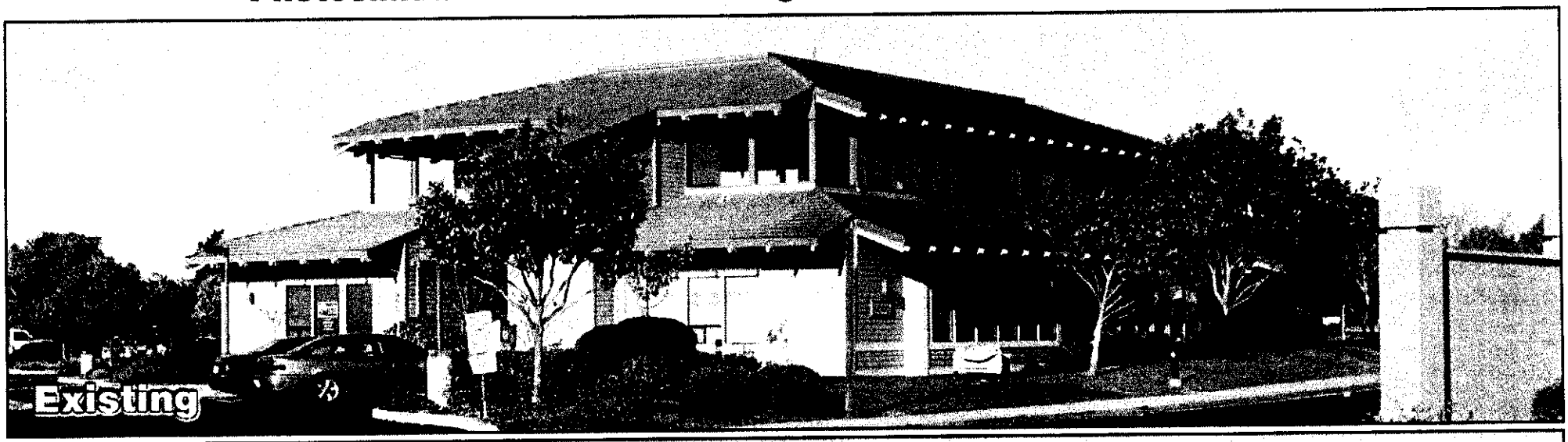
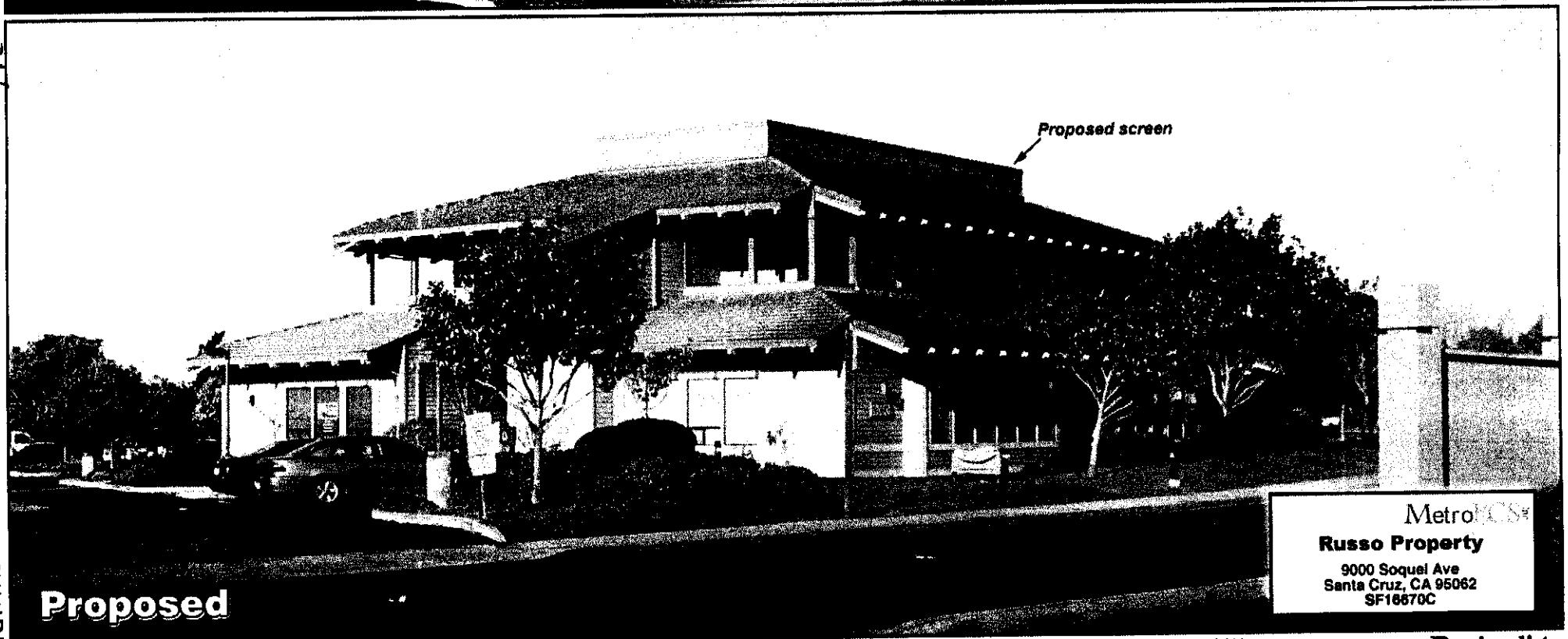
Photosimulation of view looking west from across Soquel Ave.





Previsualists

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EXHIBIT G

Site Location - The site was located by using the street address, plotted on MapQuest, found with posted address sign on the building.

Viewpoint Selection - The site is located on the south side of Hwy 1, and west of 41st Ave. Because the site is going on an existing building, it is easy to determine how visible the site will be. The site could not be clearly photographed from the freeway, because of the elevation change, and blockage from a large number of dense evergreen trees on the north side of Soquel Drive and along the interchange.
A view was provided from the back parking lot. This provides a clear panoramic view of the building, although it is taken from an area that is not considered to be a high-traffic public area.
The best view of the building comes from Soquel Ave, approaching the site. The view from across the street best illustrates this.
The photograph from 41st Ave was considerably more difficult to get. The photographer walked up and down 41st Ave to attempt to get a clear unobstructed view. The photograph was taken in a gap between buildings and trees.

Scale - The proposed antennas will be mounted inside a stealth screen atop an existing building near the freeway interchange. The height of the building is noted on the plans dated 12/20/2005 by Omni Design Group. Rough measurements were taken in the field and confirm these heights.

Equipment Information - The images were taken with a Canon 1Ds Mark II Professional Digital camera with a 1:1 conversion ratio using standard lenses. GPS equipment: Garmin Vista. Distance measured with Bushnell 1000 digital laser range finder. Height scale achieved with a Suunto clinometer. All image manipulation is done using Adobe Photoshop on Macintosh G5 workstations.

Metro
Russo Property
9000 Soquel Ave
Santa Cruz, CA 95062
SF16670C

Previsualists

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EXHIBIT G

Lucent Technologies
Bell Labs Innovations

Network Systems - **Product** Realization Center

subject: Bellcore Requirement GR-487-CORE
Section 3.28 (R3-157) Acoustical Noise Suppression
Test Report on Flexent Modular Cell Enclosure

date: January 24,2000

from: Gregory P. Mikus
Org. JC012E002
NJ0452, 1H3B
(973) **426-1230**
gmikus@lucent.com

Memorandum for Record

Introduction

The Acoustical Noise Suppression test was performed on the Outdoor Flexent Modular Cell enclosure at **NU** laboratories located in Annandale NJ on January **24,** 2000 in order to verify compliance to the Bellcore requirement specified in section **3.28** *of* GR-487-CORE (Generic Requirements for Electronic Cabinets) see Noise Unlimited test report No. **9065.1.** Marvin Lowman of Noise Unlimited Inc. conducted the testing. G. Mikus and J. Stofanak of Lucent Technologies were present during the testing.

Bellcore Requirement Description (R3-157)

Cabinets, equipped with telecommunications equipment and associated cooling fans, shall suppress acoustical noise to a level of 65dBA at a distance of **1.5** m *(5* ft) from the cabinet with the doors closed during times of maximum noise generation within the cabinet.

Test Procedure:

- Sound measurements shall be made in a room or enclosure that duplicates as much as possible the acoustic properties of a network facility and the actual service environment.
- The sound level shall be measured by a sound meter meeting **ANSI** I 4, and set to the A-weighting scale and the slow meter response setting.
- Measurements shall be made in accordance with ANSI S1.18.
- Cabinet doors shall be closed.
- Sound levels produced shall be measured at **5ft** from the cabinet surfaces in **all** horizontal directions at a height of 3ft from the cabinet-mounting surface.

Test Setup

The Flexent Modcell outdoor version was placed inside the acoustic room; a background noise measurement was taken. The Modcell outdoor version enclosure was then rendered operational and acoustic measurements were taken around the enclosure.

Position	Location	DBA re: 20 uPa
1	Ambient	43
1	Front	61
2	Left Side	53
3	Rear	52
4	Right Side	53

At the completion of the test as described in the Bellcore requirement the Flexent Modular Cell test data was reviewed and the noise levels did not exceed the specified requirement. Therefore the Outdoor Flexent Modular Cell enclosure meets the requirements set forth in Bellcore GR-487 –CORE section 3.28. This data is also in the Noise Unlimited test report No. 9065.1

Respectfully,

Gregory P. Mikus