The Rancho Santa Fe Covenant

WIRELESS FACILITIES MASTER PLAN

Contents

1. Purpose

The purpose of this Master Plan is to protect the safety, general welfare and visual assets of the Village of Santa Fe while accommodating the communication needs of residents and businesses. Its purpose is also to educate the general public about personal wireless service facilities and the community's design expectations in order to improve their involvement and participation in the decision making process. The glossary at the back of the plan is intended to help the layperson understand the jargon that unfortunately must be used.

This plan intends to:

A. Preserve the historic character and appearance of the Rancho Santa Fe Covenant area while allowing adequate wireless telecommunications services to be developed.
B. Protect the scenic, historic, environmental and natural resources of the RSF Covenant area.
C. Provide standards and requirements for the operation, siting, design, appearance, construction, monitoring, modification and removal of wireless telecommunications facilities.
D. Minimize the proliferation of antenna structures by requiring the sharing of existing communications facilities and sites where possible and appropriate.
E. Facilitate the provision of telecommunications services to the residences and businesses of the RSF Covenant.
F. Minimize the adverse visual effects of antenna structures and other facilities through careful design and siting standards.
G. Encourage, through performance standards, the location of antenna structures in non-residential areas and away from other sensitive areas such as schools and childcare facilities.
H. Assist the wireless companies and their representatives by providing information that facilitates the deployment process.
I. Provide guidance to the RSF Planning Committee for its decisions about these facilities.

The plan does not:

A. Prohibit or have the effect of prohibiting the provision of personal wireless services:
B. Unreasonably discriminate among providers of functionally equivalent services; or
C. Regulate personal wireless services on the basis of the environmental effects of radio frequency emissions to the extent that the regulated services and facilities comply with the Federal Communications Commission (FCC) regulations concerning such emissions.

The RSF Planning Committee and the RSF Association Board of Directors will make its decision to recommend approval or denial of an installation to the County of San Diego based on the applicant's conformance to this plan and responsiveness to questions at the Planning Committee meeting.

2. Locations and Structures

This section deals with the locations and types of wireless facilities that are most appropriate for the RSF community. As the expanding use of personal wireless services requires more facilities to be built, the visual qualities of the community - it's natural vistas, its rural streets, the well-tended and attractive commercial areas - become at risk. The key challenge is to protect community aesthetics and promote safety while facilitating the use of this technology throughout the community.

It is not the purpose of RSF's Covenant plan to encourage the location of every local personal wireless service facility within the RSF's boundaries. There are numerous nearby locations in other unincorporated areas that border RSF that may serve equally well or better as potential locations.

The best locations in the community for personal wireless facilities is a function of the land use and the presence or absence of taller structures that can accept antennas that will not be noticed. One of the overall goals is to locate facilities and to site and design them so they are as unobtrusive as possible. In general non-residential locations are better than residential locations because such facilities are less noticeable and more accepted by the public. Also facilities with antennas mounted on existing structures are generally preferred to facilities with antennas mounted on new structures. Antennas mounted on existing taller structures are usually' less noticeable because the structure is already part of the community's visual landscape. And all of these can be camouflaged.

RSF's preference order for locations of personal wireless service facilities is:

Most Preferred			Least Preferred
Existing Structures in Non-residential Areas	New structures in Non-Residential Areas	Camouflaged antenna structures on Non-Residential parcels	Small antennas on existing poles in the public rights of way

2.1. Existing Structures in Non-Residential Locations.

The following list describes the structures that have been used or may be potentially used for personal wireless service facilities on non-residential lands. It is meant to be as inclusive as possible, but there may be other opportunities that will be reviewed on a case-by-case basis.

A. Privately-Owned Locations

There are numerous taller structures on private non-residential property that are candidate locations for personal wireless service facilities. These include:
- ☐ Municipal or Commercial Buildings in the village
- ☐ Utility Structures: transmission towers, taller utility poles, private water tanks
- ☐ SDG&E Centers and Power Substations
- ☐ Personal Wireless Service Monopoles
- ☐ Religious Institutions

B. Publicly-Owned Locations

One and two story buildings that have yet to be built: ☐ Fire Station

Existing buildings:
- ☐ Fire Station
- ☐ Office Buildings

Relatively undeveloped and vacant properties:
- ☐ Association-owner properties
- ☐ Parks

Lands, such as lots and public rights of way that have other structures:
- ☐ Water tanks or towers
- ☐ Traffic Signal Poles
- ☐ Utility poles

Other locations owned by other government agencies may be suitable sites for personal wireless service facilities. Each agency would decide whether its properties would be available for lease for personal wireless service facilities. Such facilities need permits from the County since these commercial personal wireless service facilities do not relate directly to the government agency's mission.

- ☐ Public School District properties (building mounts)
- ☐ Water District Properties
- ☐ Community Service District Properties

2.2. New Structures in Non-Residential Locations.

There are many non-residential locations that lack a suitable mounting structure for a personal wireless service facility, especially elevated antennas. Under these circumstances, the personal wireless service facility should be located in an area that has the least visual impact in considering such a visible facility, all alternative locations should be reviewed and the carrier should apply the best available camouflage techniques to the facility.

Sometimes the most appropriate design solution may be "hiding the facility in plain sight." This is accomplished by camouflaging the personal wireless service facility with materials in colors, sizes, textures and proportions that blend into the environment, without creating visual contradictions. This is discussed in more detail in the Siting and Design Section. Possible custom-built structures to house or mount personal wireless service facilities include:

- ☐ Village gateway or neighborhood entry features
- ☐ Church steeples
- ☐ Building entry features
- ☐ Artificial trees (monotrees)
- ☐ Artificial street lamps or mission bells
- ☐ Artificial Power / Telephone poles

Because RSF has so many hills and canyons, there may be hillside locations in RSF where a ground-mounted personal wireless facility will be technically feasible and considered unobtrusive. There are currently no such facilities located in RSF.

2.3. Existing Structures in Residential Locations.

The plan assumes that future deployment of personal wireless service facilities in residential areas will occur at low antenna heights and as such, the most unobtrusive mounting structures will likely be existing utility poles. Techniques to camouflage these facilities are discussed in the Siting and Design section.

2.4. New Structures in Residential Locations.

Any new structures in the RSF Covenant Area must be camouflaged. Further information on suitable camouflage methods is provided in the Siting and Design section.

2.5. Non-Alpine Locations.

RSF is bordered by other unincorporated communities, parklands, and open space. Each area has buildings, site features, and property that could accommodate a personal wireless service facility. In

many cases, these locations may be preferable to a RSF-based location if they are less obtrusive to the surrounding area.

3. Siting and Design

Siting is the relationship of the personal wireless service facility to its site and any structures on that site. Design is the arrangement of parts, details, form, color, etc. to achieve a desired functionality and appearance. RSF is concerned with the appearance of the facility and how well it fits into the overall context of the built and natural environments. This plan provides specific siting and design guidance categorized by the type of equipment. In general the equipment should be sited to blend in with their surroundings. The environmental context will help dictate the best site and best camouflage technique(s) to use. Wireless companies are encouraged to provide creative solutions to facility siting and design that meet the plan' s goals.

3.1. Antenna Structures

Proposed facilities shall not unreasonably interfere with the view or from any public park, natural scenic vista, historic building or district, or major view corridor. Height and mass of facilities shall not exceed that which is essential for the intended use and public safety. Height shall be limited to 35 feet unless limited to is demonstrated that a co-location on a higher structure will eliminate other facilities among carriers.

A. Antennas and any necessary support structures shall be designed to blend into the surrounding environment through the use of color camouflaging and architectural treatment. Use of stealth design, including those that imitate natural features, may be required in visually sensitive locations,

B. Antennas and any necessary support structures shall be designed to avoid having an undue adverse impact aesthetic impact on prominent ridgelines and hilltops. In determining whether an antenna's aesthetic impact would be undue and adverse, the RSF Planning Committee will consider:

- the period of time during which the proposed tower would be viewed by the traveling public on a public highway;
- the frequency of the view experienced by the traveling public;
- the degree to which the tower would be screened by existing vegetation, the topography of the land, and existing structures;
- background features in the line of sight to the proposed tower that obscure the facility or make it more conspicuous;
- the distance of the proposed tower from the view point and the proportion of the facility that is visible above the skyline:
- the sensitivity or unique value of a particular view effected by the proposed tower;
- significant disruption of a viewshed that provides context to a historic or scenic resource

RSF shall have the authority to impose conditions consistent with the purpose of this section in approving a proposed facility. Furthermore, RSF may designate an alternative location for the antenna to be evaluated by the applicant if it is determined that the proposed location would result in undue adverse aesthetic impacts. In consideration of this, the applicant may revise its application to include such a site, assuming it is available to the applicant and reasonably technically feasible to meet the applicant's communication objectives.

C. All buildings and accessory structures shall meet the minimum setback requirements of the underlying county zoning or setback requirements specified in this bylaw.

D. Ground mounted equipment or antennas as well as buildings and accessory structures shall be screened from view by suitable vegetation, except where a design of non-vegetative screening better complements the architectural character of the surrounding neighborhood. A planted or vegetative screen shall have a minimum of height of six feet and shall have the potential to grow to a height of at least 15 feet and a breadth of 10 feet at maturity. Existing on-site vegetation outside the immediate site for the wireless facility shall be preserved or improved. Disturbance to existing topography shall be minimized unless the disturbance is demonstrated to result in less visual impact on the facility from surrounding properties and other vantage points.

3.2 Other Design Requirements for Antenna Structures

☐ Existing structures or poles should be used whenever possible
☐ Antennas near the ground in hilly locations should be screened by existing vegetation. if vegetation is sparse, additional landscaping may be planted that is similar to the surrounding vegetation or native to the area.
☐ Antennas should be painted and textured to match the background view or foreground view whichever will make the antennas less obtrusive. If the background is the sky, the preference is a flat gray color.
☐ Typically the least obtrusive placement on a building is a flush mounting on some roof-top equipment, structure, penthouse or building wall. A secondary location is a central place on the roof where the rootline can cut off angles of view, making the antennas less visible. The least desirable roof mount is a vertical protrusion at or near the parapet where the antennas are likely to be the most visible.
☐ Select antennas of a shape and size that are in proportion to the mounting surface, and mount them flush against the structure.
☐ On a monopole, antennas should be mounted flush to the shaft or in vertical alignment with the shaft. The antennas should be enclosed in a screening cylinder if this reduces the obtrusiveness of the facility.
☐ A new antenna rack configuration on an existing monopole should only be considered if the monopole can be adapted with adequate camoutlage.
☐ The antenna shape and mounting orientation guideline may be relaxed if the antenna is of such a small size that its presence would not be noticed by the general public.
☐ Antennas may be mounted on top of a pole-type structure (e.g., traffic signal pole, power / telephone pole. etc.) if the pole is 30 feet or less in height. The antennas should be vertically aligned with the pole and shall not exceed 20% of the height of the pole or 35 feet whichever is smaller.

3.3 Co-Located Antennas

An application for a new wireless telecommunications facility shall not be approved unless the facilities planned for the proposed structure cannot be accommodated on an existing or approved structure due to one of the following reasons:

A. The proposed antennas and equipment would exceed the structural or spatial capacity of the existing or approved tower or facility, as documented by a qualified engineer licensed to practice in the State of California.
B. The proposed antennas and equipment would cause interference materially impacting the usefulness of other existing or permitted equipment at the existing or approved tower or facility as documented by a qualified engineer and such interference cannot be mitigated at a reasonable cost.
C. The proposed antennas and equipment, either alone or together with existing facilities, equipment or antennas, would create excessive radiofrequency exposure.

D. Existing or approved locations cannot accommodate the planned equipment at a height necessary to function reasonably or are too far from the area of needed coverage to function reasonably as documented by a qualified engineer.
E. Aesthetic reasons make it unreasonable to locate the planned telecommunications equipment upon an existing or approved tower or building.
F. There is no existing antenna in the area in which coverage is sought.
G. Other unforeseen specific reasons make it unreasonable to locate the planned telecommunications equipment upon an existing or approved tower or building

Where applicable, structures must be designed to allow for future placement of antennas upon the tower and to accept antennas mounted at varying heights when overall permitted height allows. Structures shall be designed in all respects to accommodate both the applicant's antennas and additional antennas when overall permitted height allows.

3.4 Other Co-location Requirements

□ In general co-located antennas mounted on the same utility pole, monopole or building roof should be less visually obtrusive than separate personal Wireless service facilities.
□ All of the siting and design guidelines applicable to a single set of antennas apply to co-located antennas as well.
□ Building rooftops suitable for numerous co-located antennas should be retro-fitted with larger equipment screens or extensions of the roof element that are architecturally compatible with the building.

3.5 Cables

□ Cable runs along the ground should generally be placed underground unless the health of nearby mature trees would be affected.
□ If the cable runs are located above ground, they should be camouflaged from public view. Cables should not be routed along exterior surfaces unless they are camouflaged with materials that integrate with the design of the structure.

3.6 Equipment Cabinets and Enclosures

□ On developed sites, the best location for equipment cabinets is an interior building space. Secondary locations include the roof and ground level parking areas, roof-mounted equipment should be adequately screened. Ground level equipment enclosures should not remove County code-required parking spaces or landscaped areas.
□ Ground level enclosures should be tall enough to screen the equipment and match the building materials of other onsite structures \\ihenever possible.
□ Screening landscaping should also match existing, onsite landscaping if appropriate.
□ For utility pole-type mounts, equipment cabinets may be mounted on the shaft if they are small enough in size to integrate with the appearance of the structure.
□ In the public right of way, equipment cabinets should be sited in underground vaults. The best locations are the street and the sidewalk areas. In general the vaults should avoid landscaped areas and street trees.
□ Equipment cabinets should also be sited in the rear [illegible] adjacent residences. Equipment cabinets should not be visible above the fence line. [illegible] companies will need to negotiate land leases and easements with affected property own[illegible].

3.7 Lattice Towers and Monopoles.

□ New lattice towers are not allowed by Alpine because of their obtrusiveness and because

monopoles satisfactorily serve the same purpose of elevating the antennas with fewer visual impacts.
□ A monopole should be sited among other tall vertical structures or elements to reduce its obtrusiveness, such as, among a cluster of buildings, grove of trees, or within a power substation.
□ Monopoles should be approximately the same or smaller diameter as other vertical dements in the surrounding em1ronment. "Slim line" monopoles are preferred except when co-location of additional antennas is proposed.
□ Monopoles should be colored to match their foreground or background elements. If the sky is the background or foreground element then the monopole should be painted a flat gray color.
□ Monopoles should generally be camouflaged as the artificial trees listed in Appendix A. Since such artificial trees appear more authentic when placed next to real trees, the planting of larger trees near the monopole may be a project requirement.
□ The artificial tree should be of a form similar to the surrounding trees to which it is being visually integrated and be constructed of materials that retain a natural appearance for the life of the personal wireless service facility.
□ The artificial tree should not be significantly taller than the surrounding vertical elements (i.e.. buildings. trees. structures. etc.)

3.8 Other Structure Mounts.

There is a host of other types of structures that are not buildings or monopoles that may be suitable for elevating antennas and around which a satisfactory personal wireless service facility can be built. This category includes power/telephone poles, street lamps, etc. Some of these structures may not be structurally suitable to carry such wireless facilities, so RSF will allow the wireless companies to fabricate suitable replacement structures. In other cases where a structure does not exist, RSF may allow wireless companies to design and fabricate a custom-built facility that will fit into its surroundings. Additions or changes to County-owned utility structures will require the review and approval of the County of San Diego Public Works Department.

3.9 Replacement Structures

□ If the wireless company needs to fabricate a new structure to replace one that is not suitable for antenna mounting, then the new structure shall approximate the size. height shape. colors and dimensions of the existing structure in order to fit the new structure into the visual landscape. Replacement public structure will need the approval of the County of San Diego Public Works Department and shat be designed and built in accordance with this Master Plan

4. Health & Safety

Radio Frequency Radiation (RFR) or Non-Ionizing Electromagnetic Radiation (NIER)

4.1 Background

'There is an ongoing debate among scientists and the general public as to the health risks associated with exposure to RFR from personal wireless service facilities. The RSF Planning Committee does not have the authority to regulate personal wireless service facilities on the basis of RFR, nor does the RSFPC have the authority to set exposure standards for RFR emissions from personal wireless service facilities, which has been pre-empted by the Telecommunications Act of 1996. The Telecommunications Act is very dear that the RSFPC may not deny an application for a personal wireless service facility because of RFR if the facility meets the FCC Guidelines for RFR exposure. The prohibition applies only to personal wireless service facilities.

The adopted federal RFR exposure standards are embodied in FCC Guidelines published on August 1. 1996 and titled: "Guidelines for Evaluating the Environmental Effects of Radiofrequency

Radiation:' The FCC-adopted standards are the 1991 Institute of Electronics and Electrical Engineers (IEEE) standards that were subsequently adopted by the American National Standards Institute (ANSI) and became known as ANSI/IEEE C95.1-1992 in combination with a stricter National Council on Radiation Protection and Measurement (NCRP) standard that NCRP set in 1986.

If the RSFPC suspects that RFR standards are being exceeded, an FCC Guide titled: "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance," published in June 2000, suggests that the local government first contact the facility operator, and if it still has questions about compliance, the local government should contact the FCC.

While the RSFPC has no authority to regulate or enforce police powers on RFR, it appears the RSFPC may review and monitor RFR for compliance with FCC Guidelines. In fact the FCC Guide previously mentioned states:
" ... *This document recognizes that, as a practical matter, state and local governments have a role to play in ensuring compliance with FCC's limits, and it provides guidance* to *assist you in effectively fulfilling that role. The twin goals of this document are:* (1) *to define and promote locally-adaptable procedures that will provide you, ... with adequate assurance of compliance, while* (2) *at the same time, avoiding the impm;itiol1 of unnecessary burdens on either the local government process or the FCC's licensees.*

4.2 Review of RFR Emissions for Compliance with Federal Standards

As a general rule, the applicant should bear the entire cost associated with measuring, recording, reporting and monitoring RFR emissions associated with personal wireless service facilities.

Public Health. No wireless communication facility shall be located or operated in such a manner that it poses, either by itself or in combination with other such facilities, a potential threat to public health. To that end, no telecommunication facility or combination of facilities shall produce at any time power densities in any area that exceed the FCC-adopted standard for human exposure, as amended, or any more restrictive standard subsequently adopted or promulgated by the County. the State of California, or the federal government. Areas in the immediate vicinity of all antennas or other transmitting devices in which the FCC RF radiation exposure standards could potentially be exceeded, especially near rooftop antennas, must be clearly demarcated and/or fenced off, with warning signs in English and Spanish clearly visible.

4.3 Pre-Construction Measurement of Background Non-Ionizing Electromagnetic Radiation (NIER) Levels and Calculation of Predicted Post-Construction NIER Levels

Pre-construction compliance with the FCC's NIER standards or other applicable standards shall be demonstrated for any new wireless communication facility through submission. at the time of application of: (a) baseline/ambient NIER measurements, and (b) calculations of expected NIER exposure levels during peak operation periods.

4.4 Initial Post-Construction Monitoring of NIER

Initial compliance with the FCC's NIER standards shall be demonstrated for all new wireless communication facilities through submission of a report documenting initial NIER monitoring at the facility site after the commencement of normal operations. The NIER measurements shall be made. at the applicant's expense, by a qualified County approved third-party telecommunications or radio-frequency engineer, during typical peak-use periods with measurements taken at various locations, including those from which public RF exposure levels are expected to be the highest. The report shall list and describe each transmitter/antenna present at the facility, indicating the effective

radiated power of each. The report shall include field measurements of NIER emissions generated by the facility and also other nearby emission sources from various directions and particularly from adjacent areas with habitable structures. The report shall compare the measured results to the FCC NIER standards for such facilities. The report documenting these measurements and the findings with respect to compliance with the established NIER standards and also proof of general liability insurance for the facility, shall be submitted to the Alpine Planning Group within 90-days of commencement of facility operation.

4.5 Noise

Some of the wireless communication companies require mechanical ventilation to keep their equipment operating within an acceptable temperature range and generators to provide power or backup power in the event of a power outage. All of this equipment are potential noise sources and must comply with the San Diego County Noise Ordinance.

4.6 Falling Materials

Antennas mounted at taller heights and the artificial branches and foliage found on a tree pole are subject to strong winds, which may cause breakage and a potential falling material hazard to persons and property at the ground level. At the county building permit stage, applicants should be prepared to provide for the artificial tree branches: an analysis of wind resistance factors, testing for material strength and stiffness, and a description of the environmental effects related to solar degradation and fatigue.

5. Monitoring

5.1 Ongoing Monitoring of NIER Levels and Structural Integrity/Appearance

Every wireless communication facility authorized, shall demonstrate continued compliance with the NIER standard established by the FCC, and any NIER standards of other regulatory agencies as may become effective. By July 1st *of* each year, a report listing and describing each transmitter/antenna present at the facility and the effective radiated power of each shall be submitted to the Alpine Planning Group. This annual report shall also include field measurements *of* NIER emissions generated by the facility and other nearby emission sources from various directions and particularly from adjacent areas with habitable structures and/or other locations from which public RF exposure levels are expected to be the highest, during typical peak-use periods. The operator of the facility shall hire a qualified County-approved third-party telecommunications or radiofrequency engineer to conduct the NIER measurements, The annual monitoring report must also include inspection *of* structural integrity, by a licensed professional structural engineer, and appearance, such as condition *of* branches/needles *of* stealth technology "monopines", condition of screening vegetation, etc., at the service provider's expense. This annual report must also include proof of ongoing general liability insurance for the facility.

5.2 Failed Compliance

Failure to supply the required reports and proof of insurance, or to remain in continued compliance with the NIER standard established by the FCC. or other regulatory agency if applicable. or failure to maintain structural integrity and facility appearance as proposed. shall be grounds for the Alpine Planning Group to request the County to perform a review of the use permit or other entitlement.

5.3 Abandonment or Discontinuation *of* Use

All operators who intend to abandon or discontinue the use of any wireless telecommunications

facility shall notify the RSFPC *of* such intentions no less than 60 days prior to the final day of use. Wireless telecommunications facilities with *use* discontinued shall be considered abandoned *90* days following the final day of use. All abandoned facilities shall be physically removed by the facility owner no more than 90 days following the final day of use or of determination that the facility has been abandoned, whichever occurs first. Any abandoned site shall be restored to it') natural or former condition. Grading and landscaping in good condition may remain.

6. Implementation

This section of the plan addresses how the RSFPC will implement this Wireless Facilities Master Plan in conjunction with the County of San Diego's Zoning Ordinance. While all wireless service facilities will require discretionary review and approval. the RSFPC will fast track its approval of applications for well designed and sited facilities that are camouflaged, are unobtrusive in appearance to the viewing public, and otherwise meet the goals of this plan.

6.1 Pre-Application Review Meeting

Prior to starting the formal application submission, a Pre-Application Review meeting shall be held with the wireless Subcommittee of the RSFPC. In the pre-application review meeting the applicant will receive feedback regarding facility siting and design prior to making a formal application. Any feedback given shall not constitute approval by the RSFPC.

6.2 Submittal Information

Applications for the installation of Wireless Facilities in the RSF Covenant Area shall provide the following information to for RSFPC not less than twenty (20) days prior to its monthly meeting. In addition, to ensure that no delay occurs in the decision process, the applicant's representative(s) at this meeting must have the technical and business knowledge to answer questions *in depth* about the information provided.

1. The identity and legal status of the applicant, including any affiliates.
2. The name, address. and telephone number of the officer, agent or employee responsible for the accuracy of the application information.
3. The name, address, and telephone number of the owner, and agent representing the owner if applicable, of the property upon which the proposed wireless communication facility is to be built.
4. The address and assessor parcel number(s) of the proposed wireless communication facility site, including the precise latitude/longitude coordinates and Thomas Brothers map reference of the proposed facility.
5. The names and addresses of the record owners of all abutting property.
6. Evidence of need for the proposed new wireless communication facility shall be provided demonstrating that existing facilities in the RSF Covenant area cannot reasonably be modified to provide adequate coverage and/or adequate capacity to the intended service area. The documentation shall include a description of the service provider's existing wireless communication facilities network in the RSF Covenant Area. This must include existing and proposed coverage maps and a table listing facility sites/addresses, site names/identification, facility types, and precise latitude/longitude coordinates. for all existing facilities. In addition, the following information must be submitted for each of the service provider's existing facilities in the vicinity of the proposed facility site. so as to provide information sufficient for the evaluation of the need for the proposed facility:

   ☐ Ground elevation at base of structure

- ☐ Height of structure
- ☐ Type of antennas
- ☐ Height of antennas on structure
- ☐ The existence of space on the tower/facility for any potential co-location

Any functional changes in the equipment after installation that affect the visual appearance shall be submitted to the RSFPC Wireless Subcommittee for approval.

The RSFPC shall use this information to make a general analysis of the implications of this new installation for the location and types of future installations in the applicant's and competitors' networks as the needs of the RSF community increase.

6.3 The Level of Service

The level of service provided shall be indicated in the existing and proposed coverage maps.

6.4 Compliance

Compliance with the ANSI/IEEE C95.1-1992 standard for non-ionizing electromagnetic radiation (1\IER) shall be demonstrated for any new wireless communication facility through submission, at the time of application, of

a. Baseline/ambient NIER measurements, utilizing: the Monitoring Protocol in the area surrounding the proposed facility made by a qualified third-party telecommunications or radio-frequency engineer, with measurements taken at various locations, including those from *which* public RF exposure levels are expected to be the highest:

b. Calculations of expected NIER exposure levels at maximum power output, taking into account cumulative NIER exposure levels from the proposed source in combination with all other existing NIER transmission sources in the vicinity of the proposed project site. RF exposure calculations shall be made for various locations, including those from which public RF exposure levels are expected to be highest.

c. A detailed description of the proposed measures 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.

6.5 A Detailed Visual Analysis

The detailed visual analysis shall include computer photo simulations and a written description of the proposed wireless communication facility, shall be provided. Photo simulations shall be submitted of the proposed wireless communication facility from various locations and/or angles from which the public would typically view the site. The Visual Analysis shall include an assessment of the cumulative visual impacts of the proposed facility and other existing and known/anticipated future wireless communication facilities in the area, and shall identify and include all potential mitigation measures for visual impacts, consistent with the technological requirements of the proposed telecommunication service,

6.6 An Alternatives Analysis

The applicant shall submit an alternatives analysis, which shall at a minimum:

a. Identify all technically feasible alternative locations, and facility designs or types.
b. Address the potential for co-location with existing facilities.
c. Explain the rationale for selection of the proposed site based on its technical and environmental merits.
d. Include conceptual diagrams/plans of the primary alternative design and site.
e. Document the attempt to obtain the use of the primary alternative site.

6.7 Detailed maps of proposed facility site and vicinity

Signal propagation and radio-frequency studies, plots and related materials shall be prepared. clearly identified and signed by a qualified radio-frequency engineer. The following maps are required at the time of application submittal:

a. Location Map - copy a portion of the most recent U.S.G.S. Quadrangle map, at a scale of 1:24,000, indicating the proposed tower/facility site, and showing the area within at least two miles from the proposed site.
b. Vicinity Map - at a scale of] 00=416' (1 :5,000) with contour intervals no greater than 10 feet showing the entire vicinity within a 2.500' radius of the tower/facility site, and including topography, public and private roads and driveways, buildings and structures, bodies of water, wetlands, landscape features, historic sites, and habitats for Federally or state listed threatened or endangered species (or candidate species for listed status). Draw a 1000' radius circle on the map with the proposed tower/facility at its center and indicate all habitable structures within 1,000 feet of the proposed tower/facility. Indicate property lines of the proposed tower/facility site parcel and of all abutters to the tower site parcel. Indicate any access easement or right-of-way needed for access from a public way to the tower, and names of all abutters or property owners along the access easement or who have deeded rights to the easement.
c. Radio-frequency (RF) Radiation Propagation Study Map{s) - RF radiation emissions/exposures study of the site vicinity, at an appropriate scale, in the form of radial or tiled coverage plots. Indicating estimated power densities and exposure levels at designed power output. The map should display the approximate footprints of all habitable structures \Vo1thin 500 feet of the proposed facility. indicating which structures are used as dwelling units, and indicating the estimated maximum possible exposure levels at the exteriors of the most affected structures.

6.8 Detailed plans/diagrams of proposed facility and site

The following plans/diagrams. on 24" x 36." sheets. shall be provided at the time of application submittal:

A. Proposed Site Plan

a. Proposed facility site layout, grading and utilities at a scale no smaller than 1"=40' (1:480) with topography drawn at a minimum of 10' contour intervals, showing existing utilities, property lines, existing buildings or structures, walls or fence lines, wooded areas, existing water wells, springs, and the boundaries of any wetlands, watercourses and/or floodplains,
b. Proposed facility location, including supports and guy wires, if any, and any accessory building (communication equipment shelter or other). Indicate property boundaries and setback distances to the base(s) of the tower/facility and to the nearest comers of each appurtenant structure to those boundaries, and dimensions of all proposed improvements,
c. Indicate proposed spot elevations at the base of the proposed tower/facility, and at the base of any guy wires, and the corners of all appurtenant structures
d. Proposed route for utilities, including distance from source of power, sizes of service available and required, locations of any proposed utility or communication lines and whether underground or above ground.

e. Limits of area where vegetation is to be cleared or altered, and justification for any such clearing or alteration. f. Any direct or indirect wetlands alteration proposed. g. Plans indicating locations and specifics of proposed screening, landscaping, ground cover, fencing, etc: any exterior lighting or signs.

h. Plans of proposed access driveway or roadway and parking area at the tower/facility site,

B. Proposed Facility

a. Plans, elevations, sections and details at appropriate scales, but no smaller than1"=10'.

b. Two cross sections through proposed facility drawn at right angles to each other, and showing the ground profile to at least 100 feet beyond the limit of clearing, and showing any guy wires or supports. Dimension the proposed height of the facility above average grade at tower/facility base. Show all proposed antennas including their location on the tower/facility.

c. Detail proposed exterior finish of the tower/facility, including the camouflage used to blend the facility into the environment.

d. Indicate relative height of the facility to the tops of surrounding buildings and any vegetation, as it presently exists, and the height to which it is expected to grow.

e. A description of the available space on the tower, providing illustrations and examples of the type and number of Personal Wireless Service Facilities which could be mounted on the structure.

C *Proposed Communications Equipment Shelter*

a. Floor plans, elevations and cross sections at a scale of no smaller than 1/4"= 1 ' (1:48) of any proposed appurtenant structure.

b. Representative elevation views, indicating the roof facades, doors and other exterior appearance and materials.

D. Proposed Equipment Plan

a. Plans, elevations, sections and details at appropriate scales but no smaller than1"=10'.

b. Number of antennas and microwave dishes, as well as the exact location of antenna(s) and microwave dishes located on a map as well as by degrees, minutes and seconds of Latitude and Longitude.

c. Mounting locations on tower or structure, including height above ground.

d. A recent survey of the facility site at a scale no smaller than 1"=40' (1:480) showing horizontal and radial distances of antenna(s) to nearest point on property line and to the nearest dwelling unit.

e. Power output, in normal use and at maximum output for each antenna and antennas as an aggregate.

6.10 Amendment

The applicant shall inform the RSFPC within thirty (30) days of any change to the information required.

6.11 Recommendation to Approve or Deny Application

The RSFPC will make its decision to recommend approval or denial of the installation to the County of San Diego based on this information and the applicant's responsiveness to questions at the APG meeting.

Glossary of Telecommunications Terms

Above Ground Level (AGL): A measurement of height from the natural grade of a site to the highest point of a structure.

Adequate Capacity: Capacity for wireless telephony is considered to be "adequate" if the grade of service ("GOS") is p.05 or better for median teletraffic levels offered during the typical bas)' hoar, as assessed by direct measurement of the facility in question. The OOS shall be determined by the use of standard Erlang B calculations. As call blocking may occur in either the landline or radio portions of a wireless network. Adequate Capacity for this regulation shall apply only to the capacity of the radio components. Where capacity must be determined prior to the installation of the personal wireless services facility in question. Adequate Capacity shall be determined on the basis of a 20% busy hour (20% of all offered traffic occurring within the busiest hour of the day), with total daily traffic based on aggregate estimates of the expected traffic in the coverage area.

Adequate Coverage: Coverage for wireless telephony is "adequate" within that area surrounding a base station where the predicted or measured median field strength of the transmitted signal is such that most of the time. Transceivers properly installed and operated will be able to communicate with the base station without objectionable noise (or excessive bit-error-rate for digital) and without caJ1s being dropped. In the case of cellular communications in a rural environment, this would be a signal strength of at least -90 dBm, it is acceptable for there to be holes \\1tmn the area of adequate coverage as long as the signal regains its strength further away from the base station. The outer boundary of the area of adequate coverage, however, is that location past which the signal does not regain.

Affiliate: When used in relation to an operator, another person who directly or indirectly owns or controls. is owned or controlled by, or is under common ownership or common control with the operator. or an operator's principal partners. shareholders, or owners of some other ownership interest. When used in relation to the municipality, any agency, board, authority or political subdivision affiliated with the municipality or other person in which the municipality has legal or financial interest.

Alternative Design Tower Structure: Artificial trees, clock towers, bell steeples, light poles. silos and similar alternative-design mounting structures that camouflage or conceal the presence of antennas or towers. Also see Stealth Facility.

Antenna: Any system of wires. poles, rods. reflecting discs, flat panels, or similar devices, attached to a telecommunications tower or other structure, used for the transmission or reception of electromagnetic waves. The antennas tend [0 be. proportionally. a small part of the wireless telecommunications facility. Presently. five (5) types of antenna have been identified: Dish or Parabolic Antenna, Global Positioning System (GPS) Antenna, Panel Antenna, Whip Antenna, and Yagi Antenna.

Antenna Mount: This term refers to the antenna mounting hardware and the structure, if any, that elevates the antennas above the surrounding landscape; for example, a building, monopole. lattice tower, etc. There are five (5) typical types of mounts: Ground-mount. Roof-mount. Side-mount. Tower or Monopole-mount. and Structure-mount.

Antenna Height: The vertical distance measured from the base of the antenna support structure at grade to the highest point of the structure. If the support structure is on a sloped grade. then the average between the highest and lowest grades shall be used in calculating the antenna height.

Antenna Support Structure: Any pole, telescoping mast, tower tripod, or any other structure which supports a device used in the transmitting and/or receiving of electromagnetic waves.

Applicant: A person who applies for a telecommunications facility siting permit. An applicant can be the telecommunications service provider with the owner's written permission (or other legally designated representative) or the owner of the property.

Available Space: The space on a tower or structure to which antennas of a telecommunications provider are both structurally able and electromagnetically able to be attached.

Base Station: The primary sending and receiving site in a telecommunications facility network. More than one base station and/or more than one variety of telecommunications provider can be located on a single tower or structure.

Base Transceiver Station: The telecommunications facility equipment housed in cabinets or an enclosure or shelter. The term is usually used for a PCS-type cell she.

Building-mount: Antennas that are mounted to an existing structure on a building face of the roof (including rooftop appurtenances).

Bulletin 65: A document published by the Federal Communications Commission (FCC) Office of Engineering and Technology specifying radiofrequency radiation levels and methods to determine compliance.

Camouflage: A palette of techniques used to disguise, hide and conceal a personal wireless service facility from public view by blending its appearance into elements of the visual background. The term connotes the use of paint, landscaping, building materials and artificial screens in patterns that merge with the elements in the background environment.

Carrier: An entity or company in the business of providing personal wireless services.

Cell Site: A tract or parcel of land that contains a wireless telecommunications facility.