

# PLANNING COMMISSION

Agenda Item No.: 6.4 Date: June 28, 2011

**CASE NUMBER:** 

PHG 10-0030

**APPLICANT:** 

T-Mobile

LOCATION:

East of North Centre City Parkway, north of Amber Lane, south of Coyote Hill Glen, addressed as

25005 N. Centre City Parkway (APN 224-240-16).

TYPE OF PROJECT: Conditional Use Permit

PROJECT DESCRIPTION: A Conditional Use Permit for T-Mobile to install a wireless communication facility consisting of up to nine panel antennas mounted on a 33-foot-high faux broadleaf tree.

**STAFF RECOMMENDATION:** Approval

GENERAL PLAN DESIGNATION/TIER: R2 (Rural II), Jesmond Dene/Tier 2B

**ZONING**: RE-80 (Residential Estate, 80,000 SF min. lot size)

#### **BACKGROUND/SUMMARY OF ISSUES:**

The project applicant (T-Mobile) is proposing to install a proposed wireless communication facility consisting of up to nine panel antennas mounted onto a new, 33-foot-high faux broad-leaf tree. The proposed facility would be located within the southwestern area of a large 16.03 acre rural/estate lot adjacent to five other wireless communication facilities on the subject property (Sprint, Nextel, Verizon, AT&T and Cricket Communication). The supporting equipment cabinets would be located within a new, approximately 176 foot masonry enclosure area. Several specimen sized trees would be installed along with an irrigation system to provide the appropriate context for the faux tree.

LEGAL REQUIREMENTS: In 1996, the U.S. Congress added a section to the Communications Act of 1934 to promote the expansion of personal wireless communications service, adding section 332(c)(7). This section preserves local zoning authority over the "placement, construction, and modification" of wireless facilities, while imposing certain federal requirements. Specifically, Section 332(c)(7) requires that state or local government decisions regarding wireless service facilities must not: 1) unreasonably discriminate between one cellular provider and another; or 2) prohibit or have the effect of prohibiting the provision of personal wireless services; or 3) be founded on "the environmental effects of radio frequency (RF) emissions to the extent that such facilities comply with the FCC's regulations" (emphasis added).

In summary, once the Commission is satisfied the project's RF emissions are within the federal thresholds, then the review must be based on otherwise applicable local zoning criteria. A denial of a proposed facility must not run afoul of the federal restrictions set forth as 1), 2) and 3) above.

#### Staff feels the issues are as follows:

1. Whether the design and location of the proposed facility is appropriate for the site and consistent with the Wireless Facility Guidelines.

#### REASONS FOR STAFF RECOMMENDATION:

1. The proposed facility would be consistent with the Communication Antennas Ordinance since the antennas would be incorporated into a simulated tree, which is a stealthy design and would be in context with the surrounding open space setting with the installation of additional specimen sized trees. The facility (as conditioned) would be consistent with the Wireless Facility Guidelines since it would not result in any adverse individual or cumulative visual impacts; is

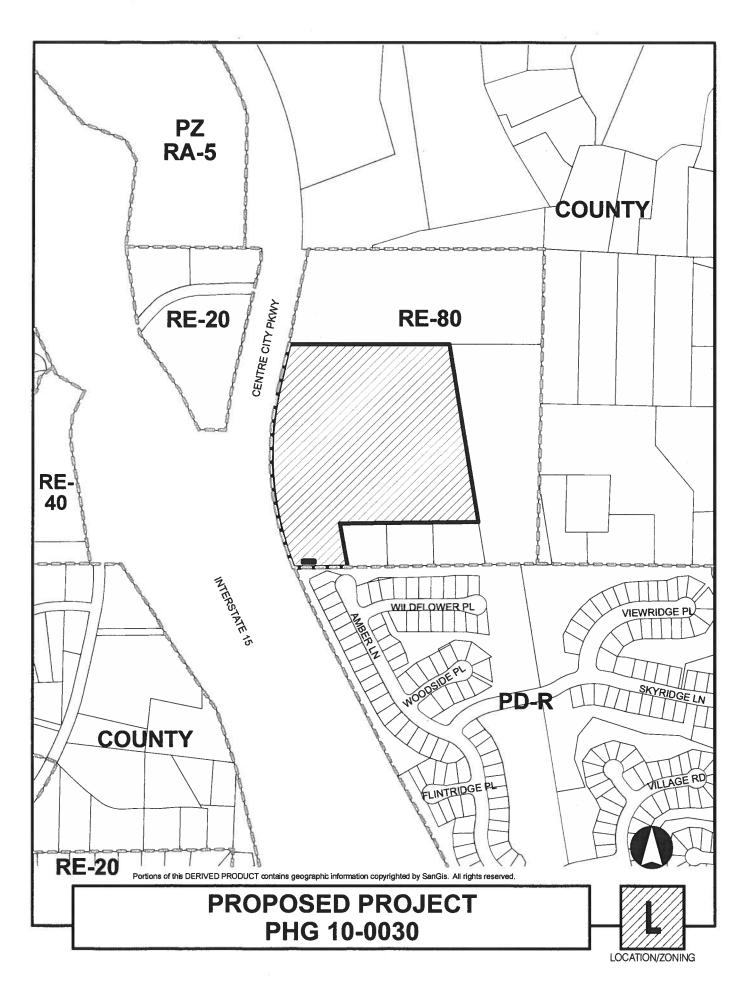
located on a large residential site; blends in with the surrounding built environment; and would be in conformance with FCC emission standards.

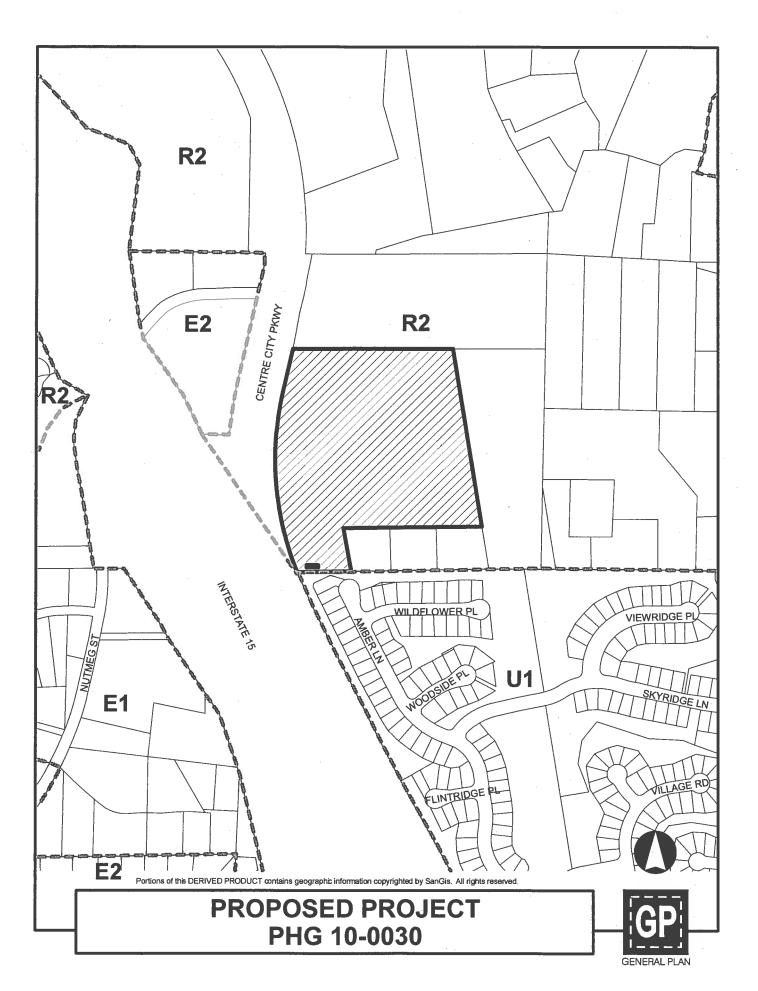
2. Staff feels the proposed facility would not result in a potential health hazards on site and to nearby residents since the Radio Frequency (RF) study prepared for the proposed project indicates the facility would be conditionally compliant within maximum permissible exposure (MPE) limits and Federal Communication Commission (FCC) standards.

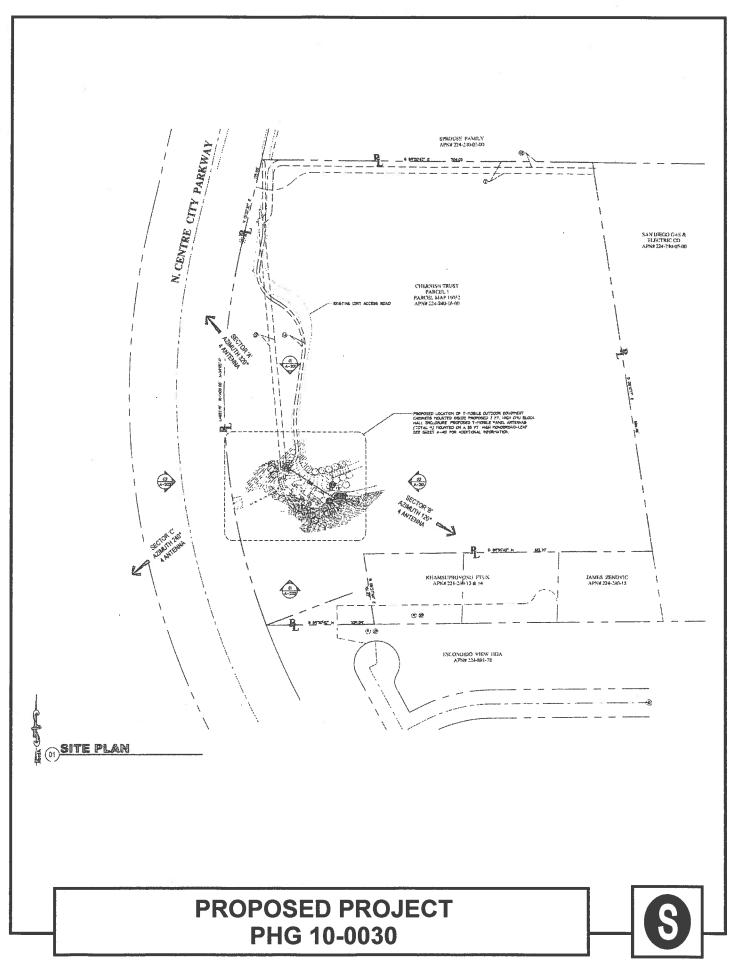
Respectfully submitted,

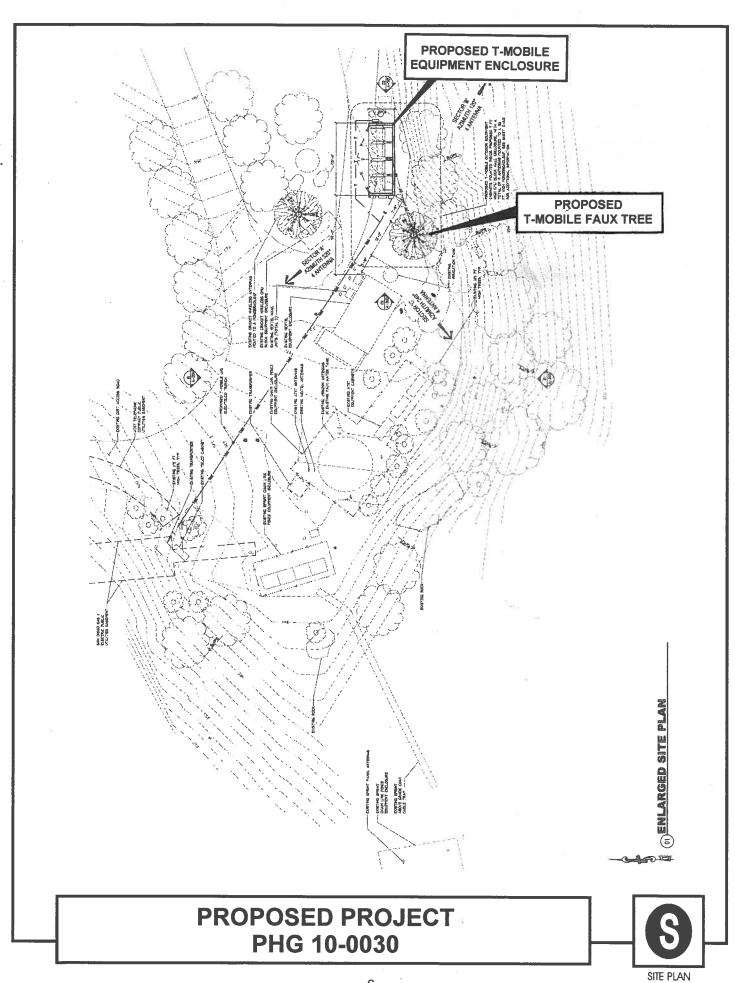
Jay Paul

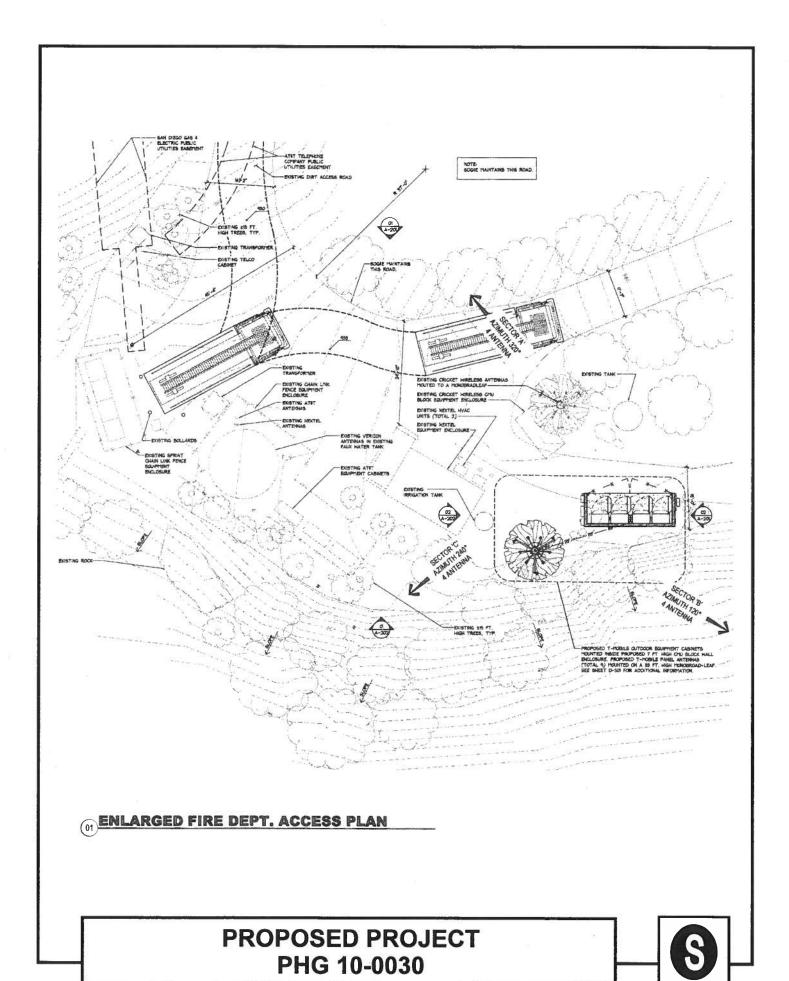
Associate Planner



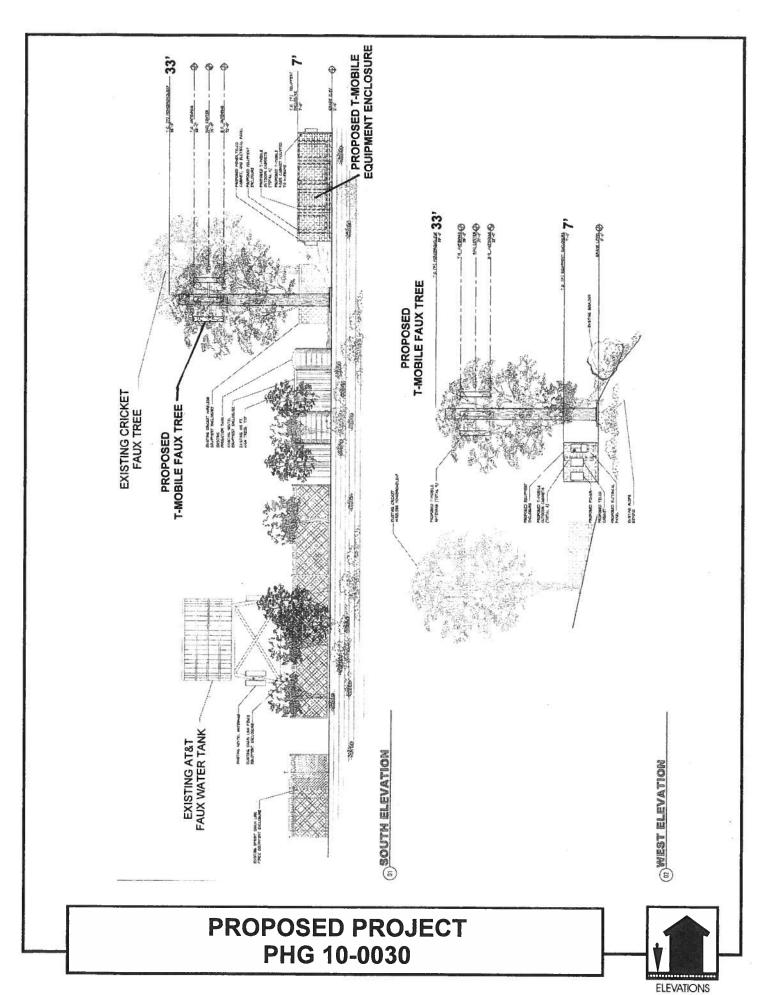


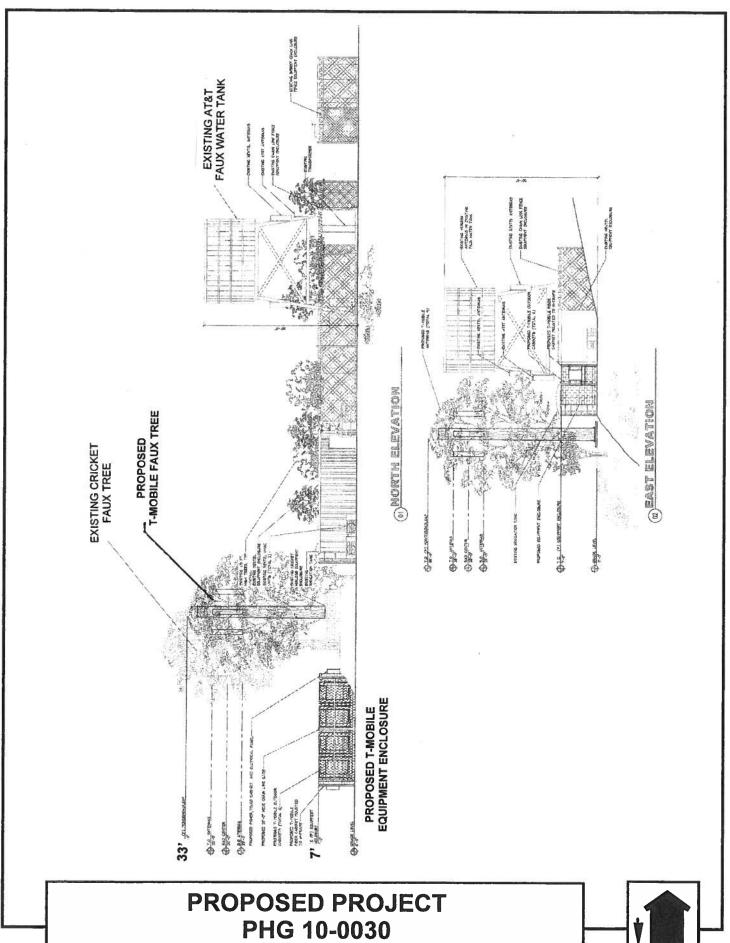




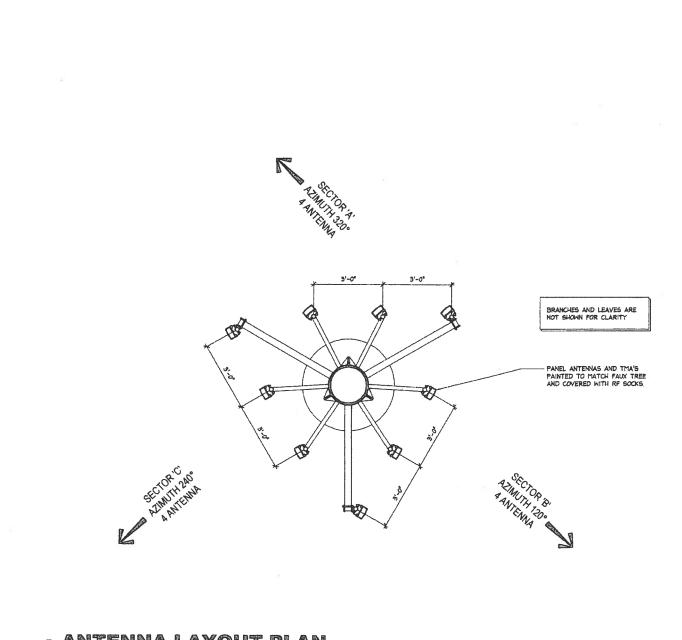


SITE PLAN



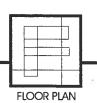


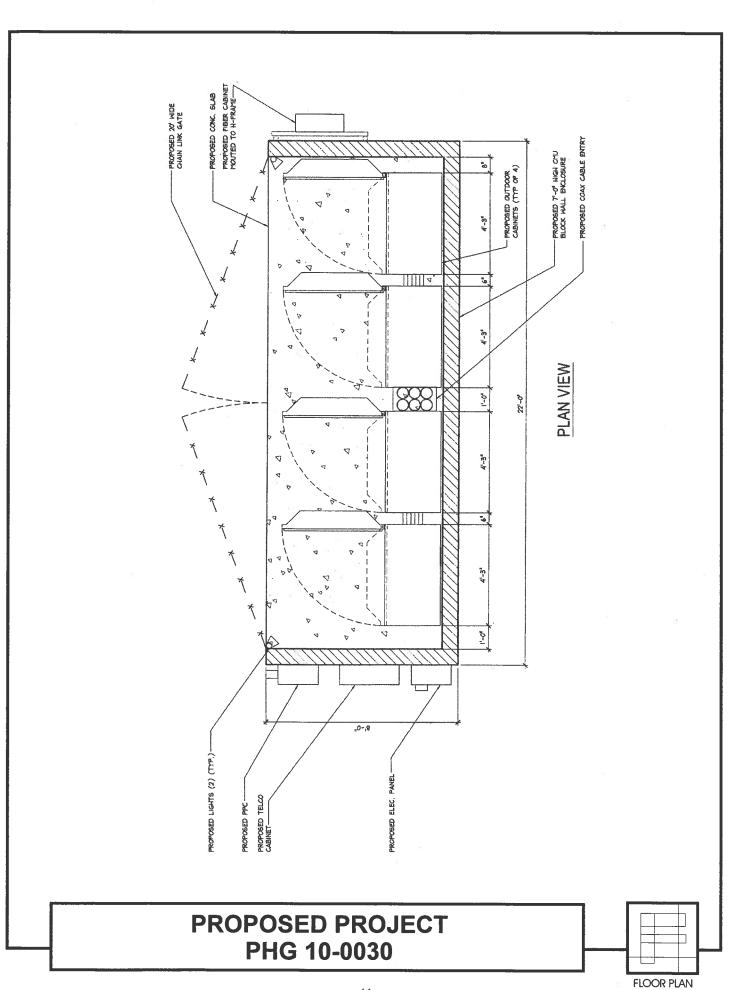


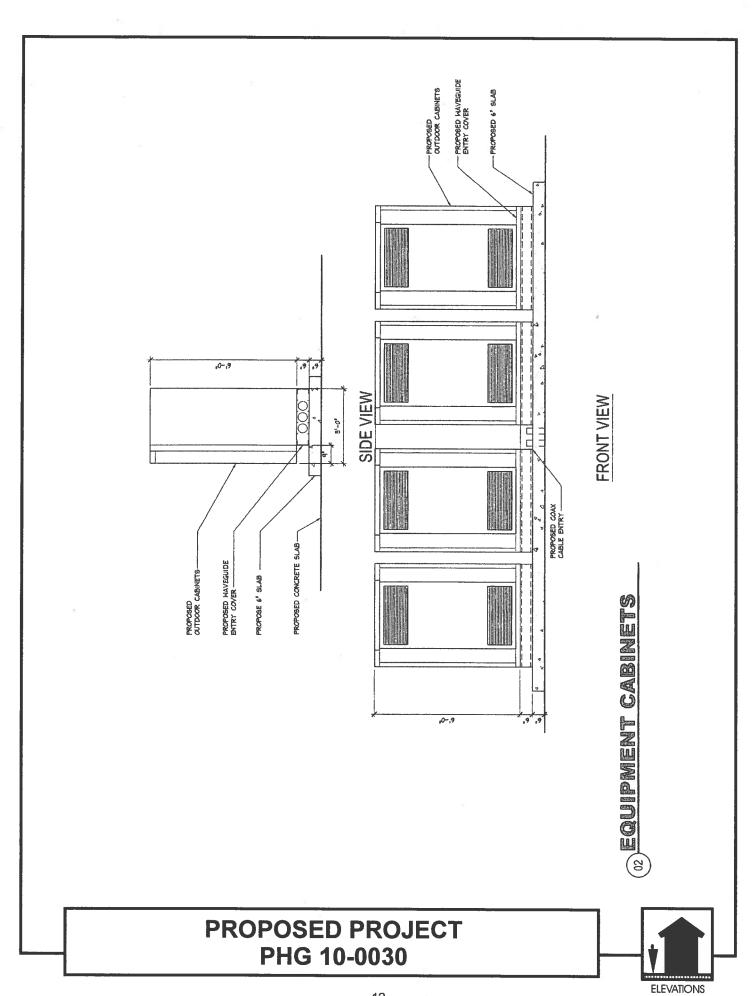


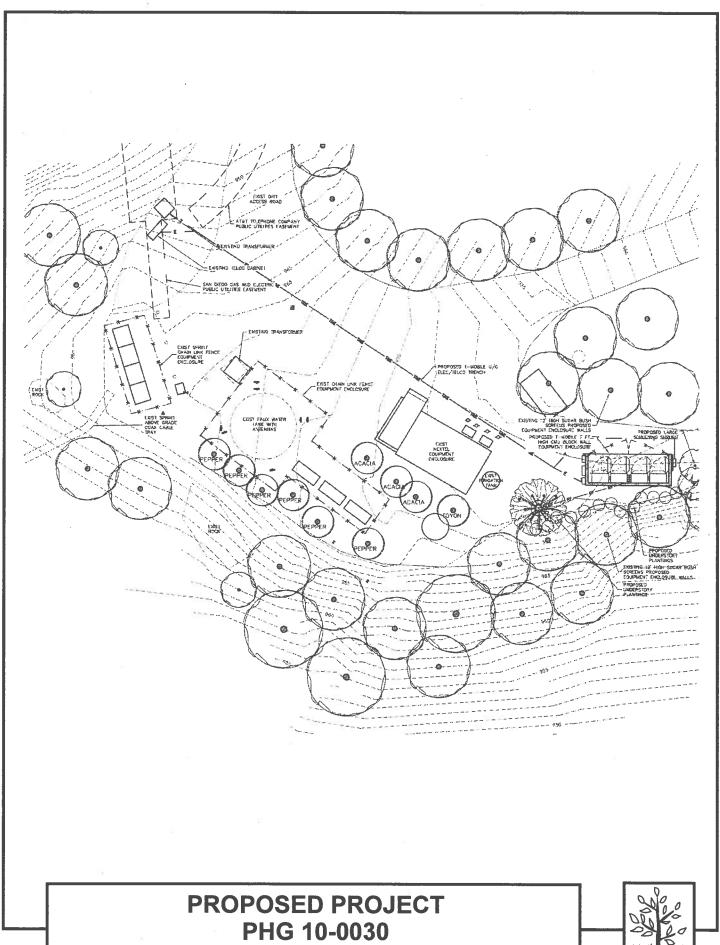
# (01) ANTENNA LAYOUT PLAN

PROPOSED PROJECT PHG 10-0030









# **ANALYSIS**

### A. LAND USE COMPATIBILITY/SURROUNDING ZONING

- NORTH RE-80 zoning (Residential Estate, 80,000 SF min. lot size) / A single-family residence is located approximately 700 feet north of the project site on the northern side of Coyote Hill. The proposed wireless site is proposed on the southern side or southern facing portion of the hill. The topography of the 16-acre site separates the proposed wireless site from any residences to the north. Centre City Parkway and Interstate 15 also are located north of the project site. A dirt easement road, steep topography and native vegetation are located immediately north of the proposed lease area for the facility.
- SOUTH RE-80 and PD zoning (Residential Estate, 80,000 SF min. lot size and Planned Development-Residential) / Undeveloped parcels and a residential development are located south of the project site. The nearest existing homes are located approximately 320 feet south and approximately 90 feet lower than the project site. Existing native vegetation is located on the southern areas of the subject 16-acre parcel, and native and non-native vegetation is located on the vacant and developed properties south of the project site. Native vegetation (Laurel sumac) approximately six to seven feet in height is located along the southern edge of the existing dirt easement road and proposed development area. A row of pepper trees are located immediately southwest of the project site, which were installed by AT&T as part of their wireless facility.
- <u>EAST</u> RE-80 zoning / A large, primarily vacant parcel is located east of the project site. Above ground water tanks are located approx. 1,000' east of the project site. Vegetation to the east primarily consists of native sage scrub and chaparral type plants.
- WEST RE-20 and RE-40 zoning / (Residential Estate 20,000 and 40,000 SF min. lot size) / Centre City Parkway and Interstate 15 are located west of the project at a significantly lower elevation (approx. 60 feet lower). Generally vacant or large residential parcels are located west of the project site across Interstate 15. Five existing wireless communication facilities are located immediately southwest of the project site on the same parcel (Verizon, Sprint/Nextel, AT&T and Cricket). One of the facilities is designed to resemble a faux water tank and the other a faux broad-leaf tree. Ornamental landscape has been introduced within the area to provide screening for the wireless facilities. Native vegetation surrounds the site on the sloping hillsides.

#### **B. AVAILABILITY OF PUBLIC SERVICES**

- 1. <u>Effect on Police Service</u> The Police Department expressed no concern regarding the proposed project and their ability to provide service to the site.
- 2. <u>Effect on Fire Service</u> The Fire Department indicated that adequate services can be provided to the site and the proposed project would not impact levels of service. The Fire Department has required the support equipment to be located within a masonry enclosure rather than a chain-link enclosure. The project has been conditioned accordingly.
- 3. <u>Traffic</u> The Engineering Department indicated the project would not have any impacts to existing traffic or circulation within the area. Anticipated vehicle trips to the site would be infrequent (generally one or two a month) for routine maintenance.
- 4. <u>Utilities</u> The Engineering Department indicated the project would not result in a significant impact to public services or utilities.
- 5. <u>Drainage</u> The Engineering Department determined the project would not materially degrade the levels of service of the existing drainage facilities.

# C. ENVIRONMENTAL STATUS

1. The proposal is exempt from the California Environmental Quality Act (CEQA) in accordance with CEQA Section 15303, "New Small Facilities and Structures," and a Statement of Exemption was prepared for the proposed project. In staff's opinion, the request does not have the potential for causing a significant effect on the environment.

2. In staff's opinion, no significant issues remain unresolved through compliance with code requirements and the recommended conditions of approval.

#### D. GENERAL PLAN ANALYSIS:

General Plan – The project site is located within the City of Escondido Rural II (Single-Family Residential) land-use designation with an underlying zoning of RE-80 (Residential Estate, 80,000 SF min. lot size). The requested Conditional Use Permit is consistent with the Rural II land-use designation of the General Plan since communication facilities customarily are permitted when conditioned to observe the underlying zone requirements and any related ordinance restrictions; are in conformance with the wireless design requirements; and when compatible with surrounding properties. The site currently is developed with wireless communication facilities and the proposed project is in substantial compliance with any relevant General Plan criteria and RE-80 zone standards for setbacks and height, and also is in conformance with the Personal Wireless Service Facilities Guidelines for location and design. The subject property is identified on the City's Draft Multiple Habitat Conservation Program (MHCP) Subarea Plan (Spring 2002) for up to 50% preservation. The installation of the wireless facility would not have a direct impact to any sensitive habitat and also would not impact any future preservation efforts on the site.

# E. PROJECT ANALYSIS

# Appropriateness of the Proposed Design within a Residential Zone and Conformance with the Communication Antennas Ordinance

T-Mobile proposes to install a 33-foot-high simulated pine tree to support up to nine panel antennas on a large residential lot. Electrical and other related equipment would be placed within a new masonry block equipment enclosure. The Wireless Facilities Guidelines encourages facilities to be in context with the surrounding area; in scale with surrounding buildings and tree heights; and discourages further consideration of high profile antennas installations on visually prominent sites. The site is developed with five other wireless communication facilities, which includes pole-mounted antennas, a faux water tank and a faux broadleaf tree. The surrounding area contains mainly native vegetation, but also contains some ornamental trees that were installed with the existing wireless facilities, which are approximately 10 to 12 feet in height. In order to provide the appropriate context for the faux 33-foot-high tree, the applicant would install additional large specimen sized trees around the new facility. The proposed equipment enclosure generally would not be visible from surrounding views due to the existing topography and surrounding vegetation. The project has been conditioned to install a masonry enclosure and the exterior painted to blend in with the surrounding vegetation/hillside.

The Design Review Board discussed the appropriateness of the faux tree on the hillside and approved the project design on January 27, 2011 (vote 6-1, Bell voting no). The applicant originally proposed up to 12 panel antennas, but staff and the DRB felt that a maximum of nine antennas would be more appropriate for this site. The DRB also felt the top of the tree should be increased (an additional three feet in height above the top of the antennas) and wider at the bottom to more resemble a real tree. The Board's recommendations have been included in the conditions of approval. Staff feels the proposed project is consistent with the Wireless Facilities Guidelines and is recommending approval, as conditioned.

### **Conformance with FCC Emission Requirements**

Operation of the facility would generate electromagnetic emissions (RF radiation). A RF study was prepared for the project by Dtech, to determine whether the proposed communication facility complies with the FCC Rules and Regulations for RF emissions for "Occupational" and "General Public" classifications. The study concluded the project site would be compliant with FCC rules and regulations. T-Mobile is predicted to contribute approximately 0.6% of the maximum permissible exposure (MPE) based on theoretical modeling. The maximum cumulative level for all facilities is calculated at 45.2% of MPE. The compliance determination is based on General Public MPE levels due to predicted and measured levels (and cumulative levels), RF signage placement, and the level of restricted access to the antennas at the site. Appropriate signage is required to be posted at access areas to the antennas and equipment providing warning/safety notice. A copy of the study has been attached with this report.

# SUPPLEMENT TO STAFF REPORT/DETAILS OF REQUEST

### A. PHYSICAL CHARACTERISTICS

The 16.03-acre property is developed with a single-family residence within the northeastern portion of the site and five wireless communication facilities within the southwestern corner of the site. Major SDG&E transmission lines bisect the property from north to south. Several dirt roads also crisscross the site and access to the southern area of the site and to the existing wireless facilities is gated to control access. Primary access to the site is provided by a private road (Coyote Hill Glen) which intersects North Centre City Parkway on the west. Interstate 15 is located further to the west. The proposed lease area on which the facility would be installed is located towards the base of a slightly sloping hill (western facing side) that continues further to the northeast to an elevation of approximately 1,100 feet. The proposed wireless facility would be situated at an elevation of approximately 970' to 972' and the subject site is surrounded by native vegetation. The proposed lease area is immediately adjacent to a larger disturbed area on the west and north that supports five other wireless communication facilities (AT&T, Nextel, Verizon, Sprint and Cricket). The proposed lease area also is immediately adjacent to two dirt roads (to the north, west and south) that provide access to existing SDG&E transmission facilities, the existing wireless communication facilities, and other areas of the property. Native vegetation is located on all of the surrounding undeveloped areas of the property and surrounding hillsides.

# B. SUPPLEMENTAL DETAILS OF REQUEST

1. Property Size:

16.03 acres

2. Height:

Approx. 33 feet to top of faux tree, approx. 28 feet top of antennas

3. Antennas:

Up to nine panel antennas mounted in a triangular array around the center pole. The antennas painted to blend in with the tree and covered with faux leaves (socks).

4. Material/Color:

Antennas painted green to match leaves on simulated tree. Antennas to be covered in simulated leaves. Support brackets to be painted a combination of green/brown to blend in with the tree design. Equipment masonry enclosure to be finished in a tan/brown color to blend in with the area.

5. Power Density:

T-Mobile is predicted to contribute approximately 0.6% of the maximum permissible exposure (MPE) based on theoretical modeling. The maximum cumulative level for all facilities is calculated at 45.2% of MPE.

6. Equipment Enclosure:

An approximately 8' x 22' masonry equipment enclosure (approx. 7 feet in height). Enclosure to painted to blend in with surrounding environment.

7. Hours of Operation Wireless Facility:

24 hours, unmanned

8. Landscaping:

Three min. 36" box-sized trees to be installed around the faux tree. A portable water tank to provide permanent irrigation. Tank to be painted olive green to blend with the surrounding background

# EXHIBIT "A" FINDINGS OF FACT PHG 10-0030

# **Conditional Use Permit**

- 1. General Plan Residential Policy B2.1 (page II-17) states that residential neighborhoods shall be protected from the encroachment of incompatible activities which may have a negative impact on the residential living environment. Granting this Conditional Use Permit to allow a personal wireless communication facility on the subject property, would not conflict with this policy and would be based on sound principles of land use since the facility is in response to services desired by the community and the facility would enhance communication services in the city without posing a health threat to the surrounding area. The proposed wireless facility would not result in a potential health hazard to nearby residents since the facility would be within MPE (maximum permissible exposure) limits as indicated in the radio frequency analysis prepared for the project. The proposed facility would be in compliance with the City's Wireless Facility Guidelines, as discussed in the Planning Commission staff report dated June 28, 2011.
- 2. The proposed personal wireless communication facility would be located within a Residential Estate zone and personal wireless communication facilities are permitted within this zone pursuant to approval of a Conditional Use Permit (CUP). The proposed facility would not result in a substantial alteration of the present or planned land use since the project area is relatively small in size and located within an area currently developed with utility structures/poles and other wireless communication facilities approved through the Conditional Use Permit process. The proposal would not cause deterioration of bordering land uses since the facility would be located approximately 265' from the nearest developed residential property (approx. 200' from potential future residences) and incorporates a design with the least visible impact for the site along with appropriate landscaping. The height of the top of the proposed panels (up to 28' in height) would be in conformance with the maximum height requirements of the Residential Estate zone and compatible with other utility structures throughout the area.
- 3. The visual impacts related to the proposed personal wireless communication facility are not considered significant since the facilities would be situated within an existing small area along a dirt road and the facility is designed to simulate a broadleaf tree. The design of the proposed equipment enclosure generally would be screened from adjacent views by existing topography and vegetation. The equipment enclosure would use materials and colors to blend in with the adjacent hillside vegetation and colors. Landscaping and permanent irrigation is proposed to provide the appropriate context for the faux tree. The design and location of the proposed facility would be in substantial conformance with the City's Personal Wireless Service Facilities Guidelines, as discussed in the Planning Commission staff report.
- 4. The proposed personal wireless communication facility would not be hazardous to the health of nearby residents since the radio frequency (RF) analysis prepared for the project concluded the maximum operation levels of radiation for the facility would be within the MPE (Maximum Permissible Exposure) limit established by FCC requirements.
- 5. The proposed Conditional Use Permit has been considered in relationship to its effect on the community, and the request would be in compliance with the General Plan Policies and the Wireless Facility Guidelines, and would not result in a negative impact to the adjacent neighborhood for the reasons stated above and detailed in the Planning Commission staff report and radio frequency analysis.

# **EXHIBIT "B"**

# **CONDITIONS OF APPROVAL**

PHG 10-0030

#### General

- 1. All construction shall comply with all applicable requirements of the Escondido Zoning Code and requirements of the Planning Department, Director of Building, and the Fire Chief.
- 2. Access for use of heavy fire fighting equipment as required by the Fire Chief shall be provided to the job site at the start of any construction and maintained until all construction is complete. Also, there shall be no stockpiling of combustible materials, and there shall be no foundation inspections given until on-site fire hydrants (if necessary) with adequate fire flow are in service to the satisfaction of the Fire Marshal.
- 3. Appropriate access shall be provide to the project site, to the satisfaction of the Fire Department.
- 4. The legal description attached to the application has been provided by the applicant and neither the City of Escondido nor any of its employees assume responsibility for the accuracy of said legal description.
- 5. All requirements of the Public Partnership Program, Ordinance No. 86-70 shall be satisfied prior to building permit issuance. The ordinance requires that a public art fee be added at the time of the building permit issuance for the purpose of participating in the City Public Art Program
- 6. Prior to or concurrent with the issuance of building permits, the appropriate development fees and Citywide Facility fees shall be paid in accordance with the prevailing fee schedule in effect at the time of building permit issuance, to the satisfaction of the Director of Planning and Building.
- 7. Prior to obtaining building permits, the applicant shall demonstrate compliance with the requirements of the Citywide Facilities Plan, to the satisfaction of the Planning Division and Engineering Department.
- 8. All exterior lighting shall conform to the requirements of Article 1072, Outdoor Lighting (Ordinance No. 86-75).
- 9. As proposed, the design, color and materials of the proposed facilities shall be in accordance with the staff report, exhibits, and the project's Details of Request, including the following to the satisfaction of the Planning Division:
  - a. Any support poles, brackets, cable runs and other support equipment shall be painted to match/blend with the varying colors and textures of the tree and surrounding area. This shall be clearly noted on the building plans.
  - b. The antenna panels shall be painted to blend in with the tree and covered in faux leaves (socks). This shall be identified on the building plans.
  - b. The tree shall be designed to include additional height above the panel antennas (at least five above the top of the antenna panels) with a sufficient number of branches at the top, along with branches that are wider at the bottom of the tree to resemble a more real broadlead tree. This shall clearly be identified on the building plans. The final branch count and location of the additional branches shall be identified on the plans, and clearly indicate how they would screen the panel antennas. The branches also shall extend at least 18" beyond the proposed number of antennas to provide sufficient visual screening of the antennas.
  - e. The equipment enclosure shall be constructed of solid block material with a solid metal door, and painted to blend in with the surrounding environment. The color scheme shall be clearly identified on the building plans. The actual colors also shall be submitted with the building plans for Planning Division review and approval. Any green colors shall be a more dark olive type shades (flat finish).
- 10. All proposed signage associated with the project must comply with the City of Escondido Sign Ordinance (Ord. 92-47) and the exhibits included in the staff report(s), to the satisfaction of the Planning Division. Appropriate signs providing notice, caution or warning, and other necessary markings, shall be placed at the main site access point(s) and other locations, as may be required, in order to alert the general pubic, maintenance or other workers

- approaching the antennas to the presence of RF transmissions and to take precautions to avoid exposures in excess of FCC limits. The requirement for the appropriate signage/notice shall be indicated on the building plans.
- 11. T-Mobile or any subsequent operator/lease holder of the wireless facility agrees to investigate any complaints related to possible interference with electronic equipment in the surrounding area to determine the cause of the interference. Any interference shall be resolved in a timely manner to the satisfaction of the Director of Community Development. If the facility is determined to be the cause of the electronic interference, T-Mobile shall solve the problem in a timely manner to the satisfaction of the complainant and the Director of Community Development. In addition, any interference with public safety communications shall be corrected immediately, to the satisfaction of the City of Escondido.
- 12. All project generated noise shall conform to the City's Noise Ordinance (Ordinance 90-08).
- 13. If requested by the City of Escondido, T-Mobile, or any subsequent operator/lease holder of the facilities shall permit co-location of other wireless providers on its facility (subject to City of Escondido Approval) if it can be demonstrated that there would be no adverse effect on the existing facilities/operations.
- 14. T-Mobile shall select an independent third party consultant to conduct actual power density measurements of the facility within 90 days after installation and under full operation of the facility. The results of the study shall be submitted to the Director of Community Development so that the theoretical power density study can be compared to the actual output to ensure compliance with FCC requirements
- 15. T-Mobile or any subsequent operator/lease holder of the wireless facility shall be responsible for all on-going maintenance of the facility, including the antennas and supporting equipment to ensure the condition of the facility does not appear weathered.
- 16. All communication facilities on the site shall be promptly removed upon non use of the facilities, to the satisfaction of the Planning Division and Building Department.
- 17. All new utilities and utility runs shall be placed underground, to the satisfaction of the Planning Division and the Engineering Department, unless as specifically approved by this permit.
- 18. No additional antennas or expansion of this facility shall be permitted without a modification of the Conditional Use Permit and a public hearing before the Planning Commission. Minor changes within the approved size and design parameters may be permitted by the Director of Community Development, which might require review by the Design Review Board.
- 19. A final landscape plan shall be submitted for the project (separate from the building plans) which includes the installation of fast growing mature trees (min. 36" box) that would be appropriate for the hilltop and native setting. Native type shrubs (min. 15 gallon) also shall be incorporated into the plan. A permanent irrigation system also shall be provided. The color of the irrigation tank shall blend in with the surrounding vegetation (typically flat olive green) and shall not project above the height of the adjacent native vegetation.
- 20. Any proposed security gates shall provide rapid reliable access by means of a knox key box to provide immediate access for firefighting purposes.
- 21. The project shall not encroach into any native vegetation areas or removed existing native vegetation. This shall be noted on the building plans and appropriate signs and other barriers installed to avoid impacts to native vegetation. The actual method used to protect native vegetation areas shall be identified on the building plans.
- 22. The Conditional Use Permit shall be null and void if not utilized within twelve months of the effective date of approval, as determined by the Planning Division.
- 23. This Conditional Use Permit only is for the installation of a T-Mobile facility located on the site. The number of antennas allowed shall be used solely for T-Mobile, and not transferred or subleased to any other carriers unless approved by the City. No other carriers shall be allowed to be placed on the facility, unless a new Conditional Use Permit is approved by the City.
- 24. All communication facilities on the site shall be promptly removed upon non use of the facilities, to the satisfaction of the Planning Division and Building Department.

- 25. Any disturbed landscaping shall be repaired or replaced to the satisfaction of the Planning Division. All landscaping shall be maintained in a healthy and flourishing manner throughout the life of the project. Any dead or unhealthy vegetation shall promptly be replaced with like size and type of vegetation.
- 26. The property owner is responsible for ensuring the entire is property maintained, and free of any litter, trash, debris and graffiti.
- 27. This item may be referred back to the Planning Commission upon recommendation of the Director of Community Development for review and possible revocation or modification of the Conditional Use Permit upon receipt of nuisance complaints regarding the facility or non-compliance with the Conditions of Approval.
- 28. An inspection by the Planning Division will be required prior to operation of the project. Everything should be installed prior to calling for an inspection, although preliminary inspections may be requested. Contact the project planner at (760) 839-4671 to arrange a final inspection.
- 29. The City of Escondido hereby notifies the applicant that the County Clerk's office requires a documentary handling fee of \$50.00 in order to file a Notice of Exemption for the project (environmental determination for the project). In order to file the Notice of Exemption with the County Clerk, in conformance with the California Environmental Quality Act (CEQA) Section 15062, the applicant should remit to the City of Escondido Planning Division, within two working days of the final approval of the project (the final approval being the hearing date of the Planning Commission or City Council, if applicable), a certified check payable to the "County Clerk" in the amount of \$50.00. The filing of a Notice of Exemption and the posting with the County Clerk starts a 35 day statute of limitations period on legal challenges to the agency's decision that the project is exempt from CEQA. Failure to submit the required fee within the specific time noted above will result in the Notice of Exemption not being filed with the County Clerk, and a 180 day statute of limitations will apply.



# CITY OF ESCONDIDO PLANNING DIVISION 201 NORTH BROADWAY ESCONDIDO, CA 92025-2798 (760) 839-4671

# **Notice of Exemption**

To: San Diego County Recorder's Office

Attn: Linda Kesian P.O. Box 121750

San Diego, CA 92112-1750

From: City of Escondido

201 North Broadway Escondido, CA 92025

Project Title/Case No.: PHG 10-0030 (T-Mobile)

Project Location - Specific: 25005 N. Centre City Parkway (APN 224-240-16)

Project Location - City: Escondido, Project Location - County: San Diego

**Description of Project**: A Conditional Use Permit for T-Mobile to install a proposed wireless communication facility consisting of up to nine panel antennas mounted onto a new, 33-foot-high faux broad-leaf tree. The facility would be located within the southwestern area of a large 16.03 acre rural/estate lot adjacent to five other wireless communication facilities on the subject property (Sprint, Nextel, Verizon, AT&T and Cricket Communication). The supporting equipment cabinets would be located within a new, approximately 176 foot masonry enclosure area.

Name of Public Agency Approving Project City of Escondido

Name <u>T-Mobile</u>	e USA, Inc.	Telephone	(425) 378-4000		
Address <u>12920 S</u>	E 38 <sup>th</sup> St. Bellevue W	A 98006			
□ Private entity	☐ School district	☐ Local public agency	☐ State agency	Other special district	

Exempt Status: Categorical Exemption CEQA Section 15303, "New Small Facilities or Structures."

## Reasons why project is exempt:

- 1. The proposed facility would be consistent with the Communication Antennas Ordinance since the facility is relatively small in size and would introduce an appropriate stealthy design to the visually prominent hilltop site, which contains a variety of stealthy and non-stealthy wireless facilities. The proposed equipment cabinets would be placed within a new enclosure area and landscaping installed to screen views. The facility would not result in any adverse visual or noise impacts to surrounding areas, and would be in conformance with FCC radio frequency emission standards.
- The site is within an area that currently is developed with other wireless communication structures. The
  proposed development/lease area is not in an area has previously been disturbed with an unpaved on-site
  road/path. The proposed lease area does not contain any sensitive habitat and no significant grading or
  removal of native vegetation is proposed or required.
- 3. The proposed facility would not be hazardous to the health of nearby residents or the general public since the facility would be within maximum permissible exposure (MPE) limits and Federal Communication Commission (FCC) standards.
- All service and access to the proposed wireless facility are available and would be in conformance with local standards.

PHG 10-0030 T-Mobile N. CCP

Lead Agency Contact Person: Jay Paul, Plan	ning Division	Area Code/Telephone/Extension (760) 839-4537
Signature:		June 13, 2011
Jay Paul, Associate P	Date	
⊠ Signed by Lead Agency	Date received	or filing at OPR:N/A



11526 Sorrento Valley Road, Ste. F San Diego, CA 92121 Phone: 858.792.0066 www.dtechcom.com

# RADIO FREQUENCY ELECTROMAGNETIC FIELDS EXPOSURE REPORT

Prepared for T-Mobile

c/o DePratti, Inc.

Site Name:

**Centre City Summit** 

Site ID:

SD07212

Site Type:

Mono-Broadleaf

#### Located at:

25005 Centre City Pkwy Escondido, CA 92026 Latitude: 33.1643 / Longitude: -117.1047



Report Date: 6/16/2011



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#### **EXECUTIVE SUMMARY**

Dtech Communications, LLC ("Dtech") has been retained by DePratti, Inc., contractors to T-Mobile, to determine whether its wireless communications facility complies with the Federal Communications Commission ("FCC") Radio Frequency ("RF") Safety Guidelines. This report contains a computer-simulated analysis of the Electromagnetic Fields ("EMF") exposure resulting from the facility. The table below summarizes the result at a glance:

Table 1: EMF Summary

T-Mobile	Summary						
Access to antennas locked	NA						
RF Sign(s) @ access point(s)	NA						
RF Sign(s) @ antennas	None						
Barrier(s) @ sectors	NA						
Max cumulative EMF level for T-Mobile on ground	0.6 % General Population						
Max cumulative EMF level for facility on ground	45.2% General Population						
FCC Compliant	Yes						

## **BACKGROUND**

Dtech uses the FCC's guidelines described in detail in Office of Engineering & Technology, Bulletin No. 65 ("OET-65") "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Radiation". Table 2 below summarizes the current Maximum Permissible Exposure ("MPE") safety limits classified into two groups: General population and Occupational.



Table 2: FCC MPE Limits (from OET-65)

Frequency (Mhz)	General Population/ Uncontrolled MPE (mW/cm <sup>2</sup> )	Averaging Time (minutes)	Occupational/ Controlled MPE (mW/cm <sup>2</sup> )	Averaging Time (minutes)		
30-300	.2	30	1.0	6		
300-1500	Frequency (Mhz)/1500 (0.2 – 1.0)	30	Frequency (Mhz)/300 (1.0 – 5.0)	6		
1500- 100,000	1.0	30	5.0	6		

General population/uncontrolled limits apply in situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment, and may not be fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related.

Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment, and those persons have been made fully aware of the potential for exposure and can exercise control over their exposure.

Occupational/controlled limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

It is important to understand that the FCC guidelines specify exposure limits not emission limits. For a transmitting facility to be out of compliance with the FCC's RF safety guidelines an area or areas where levels exceed the MPE limits must, first of all, be in some way accessible to the public or to workers. When accessibility to an area where excessive levels is appropriately restricted, the facility or operation can certify that it complies with the FCC requirements.



### SITE DESCRIPTION

The wireless telecommunication facility is located on the ground. The antennas are mounted on a mono-broadleaf tower and connected to the equipment via coaxial cables. Technical specifications provided below are gathered from physical field surveys where possible, provided drawings and/or other documents provided by our clients, site/building managers and other licensees at this facility. "Generic", "Others", "Unknown" and conservative estimates are used where information are not available.

AT&T, Nextel, Verizon, Cricket, Sprint and Clearwire are co-located at this facility.

Table 3: Site technical specifications

Antenna					Orientation	Horizontal	Antenna	Antenna	2G/GSM	3G/UMTS	Total ERP			Bottom Tip Height	Bottom Tip Height
ID	Operator	Antonna Model	Type	(MHz)	(T)	BWdth (*)	Aperture (ft)	Gain (dBd)	Radios	Radios	(Watts)	X	Y	Above Ground (Z) (ft)	Above Roof (Z) (ft)
A1	T-Mobile	TMBX-6516-R2M		2100	350	65	4.5	15.5		2	80	89	45	23.5	N/A
A2	T-Mobile	TMBX-6516-R2M		1900	350	65	4.5	15.5	4		160	93	45	23.5	N/A
A3	T-Mobile	TMBX-6516-R2M	Panel	2100	350	65	4.5	15.5		2	80	96	45	23.5	N/A
B1	T-Mobile	TMBX-6516-R2M	Panel	2100	120	65	4.5	15.5		2	80	97	43	23.5	N/A
B2	T-Mobile	TMBX-6516-R2M	Panel	1900	120	65	4.5	15.5	4		160	96	40	23.5	N/A
B3	T-Mobile	TMBX-6516-R2M	Panel	2100	120	65	4.5	15.5		2	80	94	37	23.5	N/A
C1	T-Mobile	TMBX-6516-R2M	Panel	2100	240	65	4.5	15.5		2	80	92	37	23.5	N/A
C2	T-Mobile	TMBX-6516-R2M	Panel	1900	240	65	4.5	15.5	4		160		40	23.5	N/A
C3	T-Mobile	TMBX-6516-R2M	Penel	2100	240	65	4.5	15.5		2	80		43	23.5	N/A
1	AT&T	Generic	Panel	850	0	80	4	12	Generic	Generic	400		58	24	N/A
2	AT&T	Generic	Panel	1900	0	80	4	15	Generic	Generic	630	50	58	24	N/A
3	AT&T	Generic	Panel	850	0	80	4	12	Generic	Generic	400	53	58	24	N/A
4	AT&T	Generic	Panel	850	120	80	4	12	Generic	Generic	400	54	55	24	N/A
5	AT&T	Generic	Panel	1900	120	80	4	15	Generic	Generic	630	53	53	24	N/A
6	AT&T	Generic	Panel	850	120	80	4	12	Generic	Generic	400		51	24	N/A
7	AT&T	Generic	Panel	850	240	80	4	12	Generic	Generic	400	49	51	24	N/A
8	AT&T	Generic	Panel	1900	240	80	4	15	Generic	Generic	630	48	53	24	NA
9	AT&T	Generic	Panel	850	240	80	4	12	Generic	Generic	400		55	24	N/A
1	Nextel	Generic	Panel	800	0	80	4	12	Generic	Generic	800		61	18	N/A
2	Nextel	Generic	Panel	800	0	80	4	12	Generic	Generic	800		63	14	N/A
3	Nextel	Generic	Panel	800	180	80	4	12	Generic	Generic	800		48	18	N/A
4	Nextel	Generic	Panel	800	180	80	4	12	Generic	Generic	800		46	14	N/A
1	Verizon	Generic	Panel	1900	90	80	4	15	Generic	Generic	630		55	18	N/A
2	Verizon	Generic	Panel	1900	160	80	4	15	Generic	Generic	630		53	18	N/A
3	Verizon	Generic	Panel	1900	270	80	4	15	Generic	Generic	630	43		18	N/A
1	Cricket	Generic	Panel	1900	350	80	4	15	Generic	Generic	630		65	21	N/A
2	Cricket	Generic	Panel	1900	120	80	4	15	Generic	Generic	630		62	21	N/A
3	Cricket	Generic	Panel	1900	240	80	4	15	Generic	Generic	630	95		21	N/A
1	Sprint	Generic	Panel	1900	0	80	4	15	Generic	Generic	790	10		14	N/A
2	Sprint	Generic	Panel	1900	0	80	4	15	Generic	Generic	790		49	14	N/A
3	Sprint		Panel	1900	180	80	4	15	Generic	Generic	790		42	14	N/A
4	Sprint		Panel	1900	180	80	4	15	Generic	Generic	790	5	44	14	N/A
1	Clearwire		Panel	2500	0	80	4	14	Generic	Generic	375	7	50	14	N/A
2	Clearwire		Panal	2500	180	80	4	14	Generic	Generic	375	7	43	14	N/A



Figure 1: Site map

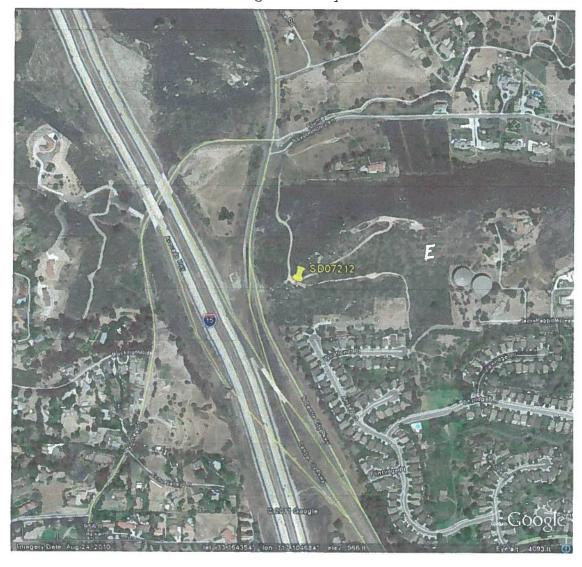
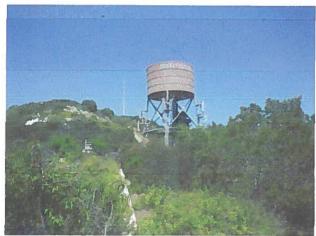




Figure 2: Site photographs



Faux water tank General View



AT&T Sectors A, B & C inside faux water tank (9 total)



Nextel Sector A (2 left), Verizon Sector B & C (2 right)



Nextel Sector B (2 left), Verizon Sector A (1 center)



Cricket All Antennas (3 total) flush mounted in Mono-Tree



Sprint/Clearwire All Antennas (6 total)

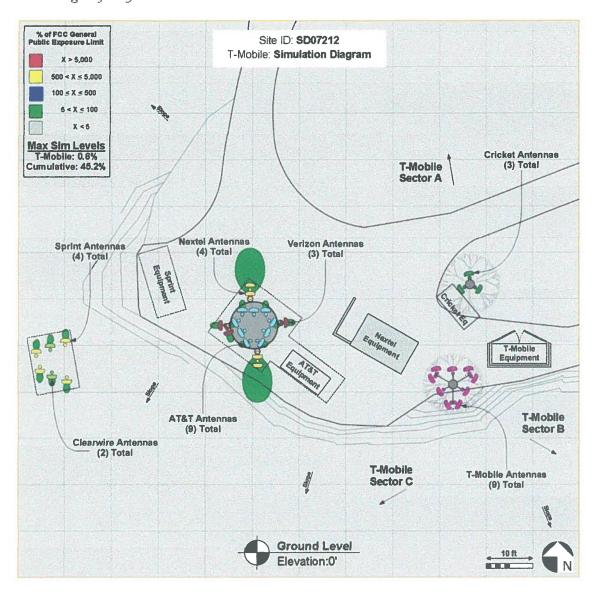
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# **RESULTS**

Figure 3: Result-The top (bird's eye) view of the resulting MPE (Maximum Permissible Exposure) map surrounding the facility.





# **RECOMMENDATION(S)**

On the ground calculations for T-Mobile's site including contributions from existing carriers resulted in exposure levels below the FCC's most stringent General Population MPE Limits in accessible areas. Since the antennas are mounted on a tall tower and therefore not accessible by the general public, compliance actions are not required. It is presumed that T-Mobile employees and contractors are aware of the transmitting antennas and will take appropriate precautions when working near them.

Compliance actions, if necessary, for the other carrier(s) at this site have not been determined as part of this study since estimates were used for their site specifications.

# **CONCLUSION**

Based on the above results, analysis and recommendation(s), it is the undersigned's professional opinion that T-Mobile's site including contributions from existing carriers complies with the FCC's RF Safety Guidelines. The worse-case exposure levels in publicly accessible areas are below the FCC's General Population MPE Limits.



# **CERTIFICATION**

This report has been prepared by or under the direction of the following Registered Professional Engineer: Darang Tech, holding California registration number 16000, with renewal date of 06/30/11.

Darang Tech, P.E.

Exp. 06/30/11



# Appendix A: Measurement and/or Computer Simulation Methods

Spatial averaging measurement technique is used. An area between 2 and 6 feet, approximately the size of an average human, is scanned in single passes from top to bottom in multiple planes. When possible, measurements were made at very close proximity to the antennas and inside the main beam where most of the energy is emitted. The maximum levels (max-hold) were recorded.

Dtech uses an industry standard power density prediction computer Model<sup>1</sup> to assess the worse-case, cumulative EMF impact of the surrounding areas of the subject site. The Model does not take into account losses due to buildings. Its methodologies are conservative enough to account for typical down-tilts deployed in wireless communications. In addition, the analysis is performed at 100% duty cycle-all transmitters are active at all times and transmitting at maximum power. For purposes of a cumulative study, nearby transmitters are included where possible. The result is a surrounding area map color-coded to percentages of the applicable FCC's MPE Limits. A result higher than 100% exceeds the Limits.

# Appendix B: Limitations

Dtech performed this analysis based on data provided by our clients that Dtech believes to be true and correct. Estimates where noted, are based on common industry practices and our best interpretation of available information. As mobile technologies continuously change, these data and results may also change. Therefore, Dtech disclaims all other warranties either expressed or implied. Any use of this document constitutes an agreement to hold Dtech and its employees harmless and indemnify it for any and all liability, claims, demands, litigation expenses and attorneys fees arising from such use. This is a technical document and may contain minor grammatical and/or spelling errors.

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<sup>&</sup>lt;sup>1</sup> Roofview® Version 4.15, Richard Tell Associates, Inc. © 1996-2000.