





# Report to Planning & Zoning Commission

Clay County, Missouri

## General Information

**Site Location:** 6717 Nebo Hills Rd  
Section 23 | Township 51 | Range 31

**Site Size:** 12.25± acres

**Existing Landuse & Zoning:** Agricultural District (AG)

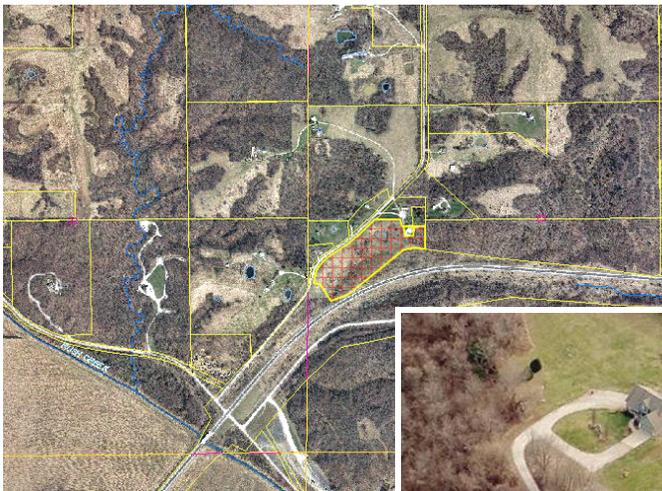
**Zoning/Platting History:** CUP, case # Jan 97-104 CUP, approved 03/13/1997.

### Surrounding Landuse & Zoning:

- North* – Agriculturally zoned land (AG), Nebo Hill Estates (R-1), Waterfall Manor (R-1)
- East* – Agriculturally zoned land (AG), Lazy J Replat (R-1 & AG)
- South* – Agriculturally zoned land (AG), Rush Creek Properties (I-1 & I-2 w/PUD)
- West* – Agriculturally zoned land (AG), City of Liberty [1 mile]

### Current Conditions:

Existing Property Lines = **YELLOW** | Subject Property Lines = **RED SQUARED HATCH**



Courtesy Clay County Assessor GIS/Mapping

Courtesy Microsoft® Bing™





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## PICTURES:

*Courtesy of the Clay County Assessor:*



*Clay County Assessor*

15603000200600 11/05/2010

*Courtesy of the applicant, SSC:*

*Fencing / Signage / Accessory Equipment*





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# Report to Planning & Zoning Commission

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*Driveway / PWSD #5 Water Tower*





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## Assessment

Justin Anderson of Selective Site Consultants (“SSC”), agent to applicant T-Mobile Central, LLC (“T-Mobile”) and property owners Robert E. Jr. & Ann M. Dorsel are requesting approval of a **Conditional Use Permit (CUP) RENEWAL** for an existing approximate 165-foot tall commercial telecommunications facility (also known as a “cell tower” or “commercial tower”) located at 6717 Nebo Hills Rd. The property is 12.25± acres in size, zoned Agricultural (AG).

### 2008 Comprehensive Plan Considerations

The Comprehensive Plan (“Plan”) indicates that the subject property is located in the RURAL LOW DENSITY TIER.

The following tables illustrate two (2) of the most pertinent policies shaped by the Plan. The first (1<sup>st</sup>) table shows the landuse tiers and corresponding guidelines, and the second (2<sup>nd</sup>) explains the exceptions to the 20-acre minimum lot size policy directed by the Plan.

	Natural Resources Tier † (Yellow)	Rural Low-Density Tier † (Green)	Urban Services Tier † (Salmon)
<b>Intent</b>	Support continued agricultural uses in areas beyond near- and long-term urban service extensions.	To accommodate low density rural uses in areas located beyond anticipated city or recreation areas.	To promote urban development compatible with the long range growth plans of adjoining cities.
<b>Primary Uses</b>	Agricultural-related uses, natural resources	Agricultural crop lands, livestock grazing, woodlands, grasslands, rural residences	Urban density residential and non-residential
<b>Residential Uses</b>	Rural Density: 1 dwelling unit per 20+ acres.	Rural Density; Rural Residential Density: low-density rural residential development: 1-dwelling unit per 20+ acres, or 1-farmstead dwelling on 5+ acres; Suburban Density: moderate-density development on municipal-level services: up to 4- units per acre.	Suburban Density: moderate-density development on municipal-level services: up to 4- units per acre. Urban Density: development on municipal-level services: greater than 4- units per acre. 20-acre minimum for agricultural and rural residential uses until such time as urban development occurs.
<b>Non-Residential Uses</b>	Farm service related, recreation	Farm service related, recreation	Recreation, limited commercial and industrial consistent with the long range growth plans of adjoining cities.
<b>Minimum Sanitary Sewer Provisions</b>	On-site septic, Community Wastewater Facility if indicated by LESA guidance.	On-site septic, Community Wastewater Facility if indicated by LESA guidance.	Municipal Wastewater Treatment Plant connection for Suburban Density or greater. <sup>(3)</sup>
<b>Zoning Districts</b>	Ag-related zoning districts; Open Space & Parks; non-agricultural zoning if on strict standards (not including Res. Low Density, such as on 3-acre lots).	Ag-related zoning districts; Open Space & Parks; non-agricultural zoning if on strict standards (not including Res. Low Density such as on 3-acre lots).	Open Space & Parks; and residential districts through general industrial (not including Res. Low Density such as on 3-acre lots).  AG, Agricultural zoning is appropriate until full range of urban services available.

<sup>(3)</sup> On-site septic allowed for agricultural uses only.

\* The **Planning Tier Map** notes a special designation of areas within one mile of each city: “1-Mile Urban Coordination Sub-Tier” where advise-and-consent should be solicited from the designated city. The applicant will be required to submit a letter from the city of jurisdiction concerning the proposal. The Clay County Planning and Zoning Commission may consider the letter as a non binding city recommendation for Clay County to consider in their deliberations.



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**Table 4.3 – Option B for Land Use Tier Implementation: Transition Policy Procedures**

	Natural Resources Tier* (Yellow)	Rural Low-Density Tier (Green)	Urban Services Tier (Salmon)
<b>Intent</b>	Exceptions from 20-acre minimum lot size in Ag-districts /		phasing in of new regulations
Density Exceptions for Legal Lots of Record as of the date of Revision of the Land Development Code	Subdivision of land to 5+acre lots, provided that 50% of the subdivided parcel is preserved, such as in an agriculture deed restriction.	Or, subdivision of land to 10+acre lots, provided that a "shadow plat" at urban density is approved.	Subdivision of land to 10+acre lots, provided that a "shadow plat" at urban density is approved, and—for plats within one mile of a city—the city's issues have been addressed.
Other Exceptions	Farmstead** dwellings allowed on 5+acre parcels.		City within one mile may review and recommend other exceptions granted in other tiers, provided a "shadow plat" at urban density is approved.

\* The Natural Resources Tier includes an "Urban Services Transition Sub-Tier" area along M-92 and C-Highways that extends where urban development is influenced by the urban highway; yet remains within the Natural Resources Tier designation for purposes of enhanced environmental review and scrutiny.

\*\* A "Farmstead Dwelling" is the original residence built and initially occupied by a farm family, regardless of whether the current household occupant is associated with farming.

## **Character of the General Neighborhood**

Agricultural (AG) zoned property is in each direction of the property with a few R-1 zoned subdivisions, along with Rush Creek Properties to the South and the City of Liberty to the West [See **Attachment B**].

## **Federal Aviation Administration (FAA) Considerations**

The FAA has no comments in regards to this proposed tower location as it is over 20,000 linear feet (approximately 3.79 miles) from a public use or military airport and not over 200 feet in height. The only known public use or military airports is the Roosterville Airport approximately 6 ¾ miles to the northwest, and the Midwest National Air Center ("MNAC") roughly 8 miles to the northeast of the proposed tower location.

## **Code Considerations**

The Conditional Use Permit (CUP) application was properly noticed in the Kearney Courier on April 12, 2012. Adjacent property owners within the statutory law mandated 1,000 foot distance were notified by means of a certified letter sent April 10, 2012.

The subject request for a commercial telecommunications facility, more specifically being a commercial cell tower, is handled under multiple portions of the 2011 Clay County Land Development Code ("LDC"). The use table inside **Section 151-6.1** includes a "Telecommunications Facility, Commercial" designation requiring approval of a Conditional Use Permit ("CUP") in the Agricultural ("AG"), Residential Rural (R-1), Residential Ranchette (R-5), Residential Urban (R-U), Commercial Services (C-3), Limited Industrial (I-1) and General Industrial (I-2) zoning districts. As such, the subject request must meet all of the approval criteria for a CUP in **Section 151-3.10 (A) (13)** detailed below:

- A) The proposed use complies with the intent of the Comprehensive Plan and general provisions of the Land Development Code, modified for the specific use request.
- B) The proposed use in its proposed location will not have a substantial adverse impact on the public health, safety or general welfare.
- C) The proposed use will not cause substantial injury to the value of other property in the vicinity.
- D) Adequate access routes will be provided and designed to prevent traffic hazards and to minimize traffic congestion in public streets.



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- E) Adequate public safety, transportation and utility facilities/services will be available to service the subject property while maintaining adequate levels of service for existing development, and
- F) The proposed use is compatible with adjacent uses in terms of scale, site design, and operating characteristics (i.e., hours of operation, traffic generation, lighting, noise, odor, dust, and other external impacts).

Under **Section 151-6.2 (G)**, the LDC provides specific use standards for Telecommunications Facility (Commercial) and is summarized below:

1) Federal Requirements

*STAFF RESPONSE: The proposed tower meets all FAA and FCC regulations as to radio frequency emissions and findings of no hazard to air navigation.*

- A) Abandoned Towers – The LDC requires abandoned towers be removed at the owner's expense, and that a bond or letter of credit be maintained for this purpose in the County Clerk's Office. The amount shall be equal to a demolition bid of the tower structure, updated every 5 years.

*STAFF RESPONSE: This was not required at the time of the original CUP approval in 1997.*

- B) Inspection – The tower shall be inspected every 24 months by a registered structural engineer.

*STAFF RESPONSE: Since a structural analysis has not been done by a Registered Professional Engineer (PE) in the State of Missouri within the past 24 months, staff recommends that one be done by the end of 2012.*

- C) Accessory Equipment Storage – mobile equipment or equipment not used in direct support of a tower facility shall not be stored or parked on the site.

*STAFF RESPONSE: Staff reviewed the subject site and it does not appear these activities were present.*

- D) Fences – Towers shall be enclosed by security fencing not less than 6 feet in height with anti-climbing device, and have a locked gate. Security signs shall be posted on the outward face of the fence, indicating "No Trespassing", "High Voltage" and any other pertinent information.

*STAFF RESPONSE: Staff reviewed the subject site and it verified at least a 6-foot tall perimeter fence exists. In addition, the applicant submitted a letter and photos detailing that the subject site has an adequate perimeter fence (See **Attachment C**).*

- E) Lighting – Commercial Towers shall not be artificially lighted unless required by the FAA or other applicable authority. If lighting is required, the County Commission may review the available lighting alternatives and approve the design that would cause the least disturbance to the surrounding views.



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STAFF RESPONSE: *The proposed tower meets all FAA and FCC regulations as to radio frequency emissions and findings of no hazard to air navigation. The subject location has no artificial light illuminating the site.*

- F) Landscaping – The tower compound shall be landscaped with a buffer of plant materials that effectively screens the compound from adjacent property.

STAFF RESPONSE: *Please reference the above oblique aerial photo courtesy of Microsoft® Bing™ maps, and note the existing vegetation on all sides of the subject property except for along the frontage of Nebo Hills Rd.*

- G) Co-locations – The LDC requires that all towers be constructed for a capacity of 3 times the intended use in order that secondary users may lease the balance of the tower capacity.

STAFF RESPONSE: *With an overall height of 165 feet, the LDC encourages co-location of a minimum of three (3) users on the proposed tower. The existing tower currently has a total of one (1) user:*

*#1 (original) – T-Mobile*

- H) Separation from Existing Towers – A lattice tower design such as the subject tower shall be at least 5,000 feet from another lattice or guyed existing tower and at least 1,500 from a monopole tower.

STAFF RESPONSE: *No existing towers have been identified within 5,000 feet of the existing tower location, except for the existing PWSD #5 water tower. At approximately 14,700 feet to the North and West is the Alpine Broadcasting Corp. tower within the City of Liberty, which is the closest tall structure.*

- I) Height and setback – No tower shall exceed 300 total feet above ground level, and must be setback a minimum distance equal to 100% of the height of the tower from all adjoining property lines.

STAFF RESPONSE: *The cell tower is approximately 165 feet in height, thus establishing a minimum setback of 165 feet.*

*The setbacks are as follows [approximate calculations]:*

<i>North Property Line</i>	<i>15' *</i>	<i>East Property Line</i>	<i>200'</i>
<i>South Property Line</i>	<i>170'</i>	<i>West Property Line</i>	<i>575'</i>

\* The Board of Zoning Adjustment (“BZA”) granted the necessary variance for the existing T-Mobile cell tower from the north property line at their meeting on March 27, 2012:

1. A one hundred and forty foot (140’) setback variance from *Section 151-6.3 (G) (13)* to allow an existing commercial communications facility to remain 140 feet inside the property setback line.

**Section 151-5.5** of the LDC sets additional height hazard limitations for tall structures within the Airport Overlay Zoning District (“A-O”). However, these restrictions do not apply to the subject request as its proposed location falls outside the geographic boundaries of the A-O.



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## **Outside Agency Review**

The Clay County Highway Department stated they have no objection to the proposal, as "it does not create changes to the road or ROW at that location".

The Clay County Health Department has given final approval, stating "No items for health".

Platte-Clay Electric (PCEC) has no objection to the proposal. Public Water Supply District #5 supplies water to the property. The Fishing River Fire Protection District serves this property.

## **Findings**

No opposition has been received as of the date of this staff report.

Since a structural analysis has not been done by a Registered Professional Engineer (PE) in the State of Missouri within the past 24 months in accordance with the LDC, staff recommends that one be done by the end of 2012.

## **Recommendations**

Staff recommends the request for the **Conditional Use Permit RENEWAL** for an existing 165-foot tall commercial telecommunications facility, specifically a commercial wireless communication tower be **approved**, with the following conditions as shown on Exhibit A:

### **Exhibit A**

1. The CUP shall be based on a time frame of fifteen (15) years.
2. Building Permits are required when additional antennas are proposed, including a report from a structural engineer registered in the State of Missouri indicating that the existing structure is capable of supporting the additional weight. Such report shall be obtained at the expense of the applicant.
3. The applicant will have the option of granting at least three (3) subleases for additional users ("co-locations"). The Clay County Planning & Zoning office must be notified of any additional users by form of a letter that must also include an engineering certification indicating the existing tower structure can handle the increased weight and that the associated equipment was properly installed.
4. One (1) co-location shall be granted at no charge to the Clay County Sheriff Department and/or any other authorized public safety responder servicing the tower's coverage area.
5. The applicant and property owner shall carry insurance which excuses Clay County for any liability and shall provide the County with a certificate of insurance showing coverage with an aggregate limit of \$2,000,000.
6. A structural analysis be completed by a Registered Professional Engineer (PE) in the State of Missouri no later than the end of 2012. Thereafter, every twenty-four (24) months the tower must be inspected by a structural engineer registered in the State of Missouri who is regularly involved in maintenance, inspection and erection of communications towers.



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## Report to Planning & Zoning Commission

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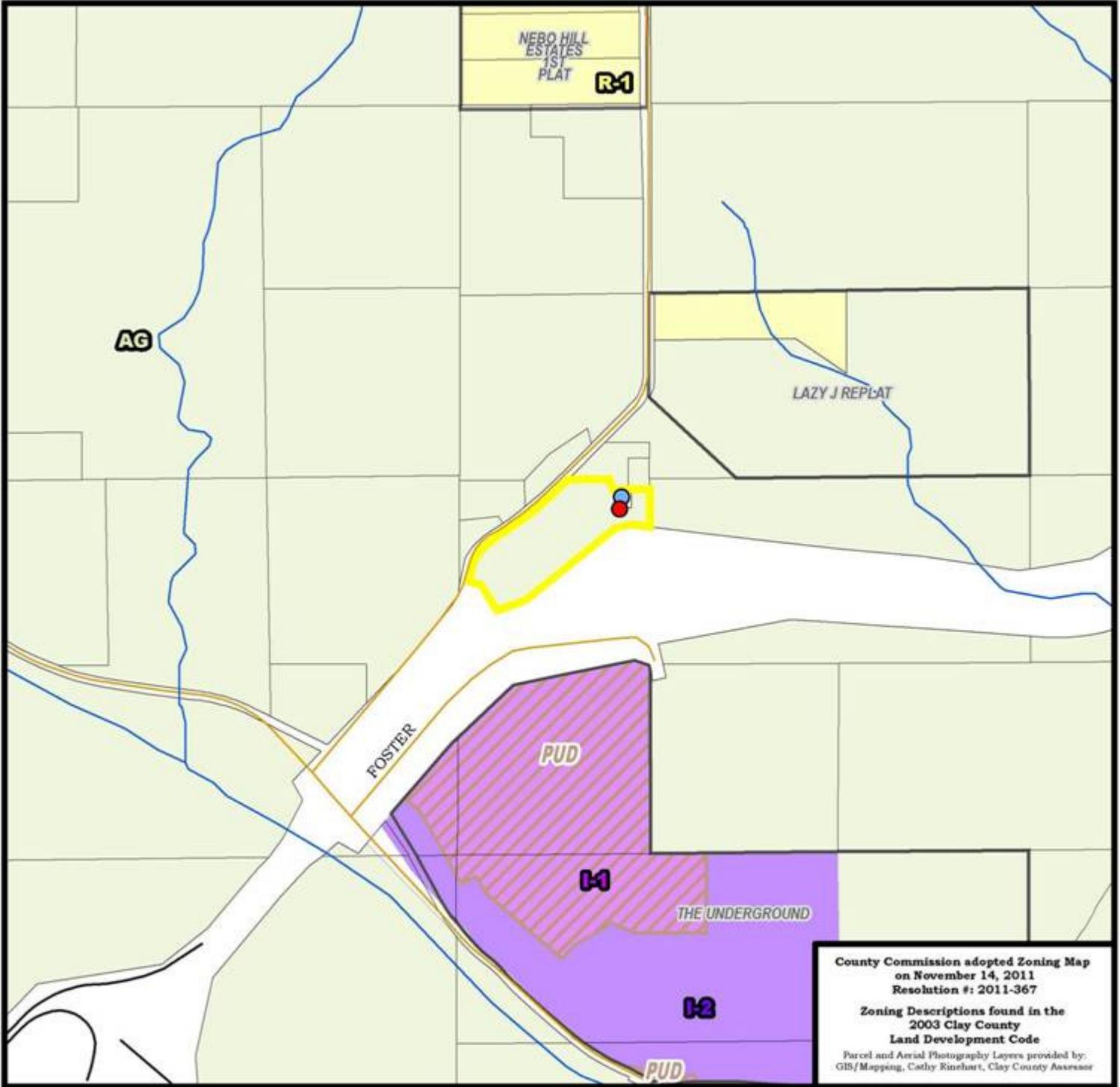
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7. If the tower is damaged or destroyed, the property owners will have 120 days to repair or dismantle the facility.
8. No hazardous materials may be stored on the property.
9. Installation of an anti-climbing device to go at least 6 feet up the tower/antenna assembly from ground elevation.
10. In case of amateur radio use (often referred to as "HAM radio"), applicant/owners must submit evidence of Federal Communications Commission (FCC) licenses and permits.
11. Once approved, this CUP is transferable to new assigns of the lease; however, such parties must file new contact information with the Clay County Planning & Zoning office within 60 days of the transfer of ownership or be subject to a new CUP.



# May 12-106CUP - SSC (T-Mobile)

## Attachment B - Existing Conditions Map



Map Document: G:\GIS\Project\_Files\Vacinity Map - 8 x 11 P.mxd  
04/26/2012 -- 10:15:18 AM

**Planning & Zoning Department**

**LEGEND**

Existing Towers Cell Tower	Existing Towers Water Tower	Property Line	Streams (EPA)	Railroads	Roads Interstates	State Highways	Local Roads	Highway Ramps	Overlay Districts CD (Conservation District)	PUD (Planned Unit Development)	Subdivisions	County Boundaries	2011 City Limits	Parks	Zoning Districts AG R-1 R-1A R-1B R-2 C-1 C-2 C-3 I-1 I-2 OP
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### May 12-106 CUP – SSC/T-Mobile Cell Tower Attachment C – Applicant Letter (p. 01 of 02)



March 30, 2012

Clay County Planning and Zoning  
234 W. Shrader, Suite C  
Liberty, MO 64068  
Attn: Debbie Viviano  
(816) 407-3380

RE: Reference – County Commission Resolution 97-75.  
T-Mobile Central LLC (“T-Mobile”) f/k/a American Portable Telecom  
 (“APT”) application for approval of renewal for a Conditional Use Permit  
 for the continued use of the wireless telecommunications tower (165’) located  
 at 6717 Nebo Hills Road.

To Whom It May Concern:

T-Mobile is applying for the renewal of the referenced Conditional Use Permit for the continued use of a 165’ wireless tower at the referenced location to provide extended services for existing and new wireless customers. The facility will not only continue to provide valued service to existing customers but to any new customer as well. Since its approval in September 1999, this tower has had electronic upgrades to help provide value-added services as technology has advanced with smartphones, video, photo, and music – all of which require more data use and site upgrades. The enclosed coverage maps show the “with and without coverage” for this location.

#### Coverage Maps

The coverage maps will show the need for continued use of this site as it relates to an overall network of T-Mobile sites that will be incomplete for this area without this renewal. This tower is a key to maintaining an exceptional network for T-Mobile and its customers.

#### Site Design

Tower design – This site consists of a 165’ tower that is capable of co-locating other carriers.



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### May 12-106 CUP – SSC/T-Mobile Cell Tower Attachment C – Applicant Letter (p. 02 of 02)

Setbacks – This site meets all required setbacks to residential properties.

Fenced Area – T-Mobile has an existing fenced lease area of a 30'x30'. The compound has a 4' x 6' gate for entrance on the west side of the compound. T-Mobile uses outdoor equipment that uses a small concrete pad.

Access – There is an existing gravel road to the west of the site that T-Mobile continued east as a 12' access road.

#### Other Conditions

Interference – T-Mobile frequencies are proprietary and licensed through the Federal Communications Commission. Existing FCC approval of T-Mobile's operation is attached herein.

Public Service – This site will continue to provide services for personal, public and emergency services. The existing site will not affect any public facilities and will use minimal utilities.

#### Board of Zoning Appeals

On March 27, 2012, this site was granted a setback variance of 140' to meet the new 1:1 setback for tower height from adjacent property lines. The variance was required due to the Water District obtaining property within the existing 110' (required for expired 2/3 setback requirement) setback.

If there are any further questions or requirements please direct them to Justin Anderson. He will be attending public hearings for these projects.

Best regards,

A handwritten signature in blue ink, appearing to read "Justin Anderson".

Justin Anderson

Encl; Application  
Propagation study (to be attached)  
Cover letter  
Legal descriptions  
Site plan  
Application Fee