Value Concepts, Inc.

VCI • 114 Stone Mountain Street • Suite D • Lawrenceville, GA 30045

5-A-06-UR

April 9, 2006

Knoxville-Knox County Metropolitan Planning Commission 400 Main Street, Suite 403 City County Building Knoxville, TN 37902

RE:

Proposed 120' Monopole Tower @ 2538 Sutherland Avenue

KX65XC502

Dear Commission Members:

On behalf of Sprint PCS and the land owner, Rodman Townsend, I respectfully request approval of this application for Use on Review for a wireless telecommunications facility. This facility is to be built for Sprint PCS and its wireless network. The proposed project includes a 120' monopole tower to be located at 2538 Sutherland Avenue.

The search radius is very specific due to existing Sprint PCS sites. There were no existing or acceptable structures within this area. The search radius is very specific due to existing Sprint PCS sites and how this proposed site fits into the existing network coverage. The proposed site is to relieve capacity of existing, nearby Sprint PCS sites and to provide inbuilding penetration for this area of the City of Knoxville.

We initially contacted the Parks and Recreation Department about the possibility of leasing land from the City of Knoxville for the communications facility at Tyson Park We were proposing to locate the facility adjacent to Highway 129, but the Parks and Recreation Department decided not to pursue the proposal.

Pursuant to Article 5 Section 20 Commercial Telecommunications Facilities B. Development Standards 1. Co-Location Requirements of the Knoxville Code, the tower will be designed to accommodate a minimum of two antenna arrays.

Pursuant to the Facilities Plan adopted by the Metropolitan Planning Commission in 2002 I submit the following:

- (1) View Protection The tower is proposed to be at a height of 120' and will have a minimal impact on the surrounding industrial and commercially zoned properties. Due to the proposed height of 120' there will be no lighting on the structure.
- (2) Land Use Compatibility The subject property is zoned I-2, Restricted Manufacturing and Warehousing District, which allows more intense uses than this proposed facility. This facility will be unmanned and will have no substantial increase of noise, air pollution, or traffic. Furthermore the proposed facility will not burden any city services.

Adjacent and surrounding properties are zoned I-2 or C-3, General Commercial District. The proposed location is within an Opportunity Area and the proposed facility is encouraged within this area according to the Land Use/Wireless Facilities Matrix.

The site is located within 500' of a residence and is therefore also considered to be within a Sensitive Area, however the Land Use/Wireless Facilities is neutral to this location due to its consideration as a Moderate Monopole with a height of 120'

Obesign Compatibility —The facility design will not impact the existing uses of surrounding properties due to the zoning of I-2, Industrial throughout the area. The proposed structure will be considered a Moderate Monopole according to the Land Use/Wireless Facilities. Monopoles are often considered the lease obtrusive type of structure. Additionally a proposed wood privacy fence will shield the compound from adjacent properties and public right-of-ways.

Included with this application package are the following items:

10 sets of site plans
Coverage maps depicting before and after the proposed site
Letter dated 4/3/2006 from Karl Wagnon, Sprint PCS regarding co-location
An affidavit from Mr. Bryan Smith of Sprint PCS regarding the proposed facility

I appreciate your time in reviewing this application. If you require additional documentation or information please feel free to give me a call at (770) 995 - 2714.

Project Manager

Value Concepts, Inc. for Sprint PCS & Rodman Townsend



Sprint Nextel 104 Continental Place, Suite 100 Brentwood; TN 37027 Office: (615) 661-8400 Fax: (615) 661-8466

April 3, 2006

RE: Proposed Nextel Site # KX65XC502

Townsend Raw Land - Knox County

To Whom It May Concern:

Please allow this letter to confirm that Sprint Communications agrees to make all of its wireless telecommunication facilities in Knox County available to other wireless providers for collocation, provided such facilities are structurally and technically able to accommodate additional providers.

Should you have any questions, please contact me directly at (615) 661-8390.

Thank you.

Nextel Communications

Karl Wagnon

Sr. Mgr Site Development

Tax Map: Parcel: Address: 2538 Sutherland Ave.

AFFIDAVIT

STATE OF TENNESSEE)
)
COUNTY OF KNOX)

Comes the undersigned and upon oath states as Follows:

- My name is Bryan Smith, Radio Frequency Engineer II with Sprint PCS. I have been involved in the design of the radio frequency plan to be used by Sprint PCS in its delivery of telecommunications services in the State of Tennessee and the City of Knoxville and, therefore, have first hand knowledge of concerning the proposed PCS base station designated above and its role in Sprint PCS's ability to provide telecommunication services.
- 2 The base station, including a new 120' monopole communications tower is essential to providing telecommunications services to the public.
- 3. No existing tower or structure that can be utilized as an antenna attachment has been identified within the area necessary to provide Sprint PCS service and to interact with the network of existing Sprint PCS base stations, Co-location on an existing structure or tower therefore, is not an option
- The proposed location of the base station was selected based upon a Search Ring of the Volunteer Blvd. and the surrounding area, issued to AFL Telecommunications. The comprehensive Search Ring designated an area on a topographical map indicating where a site must be located to meet defined coverage objectives. The following criteria were employed to evaluate all potential alternatives; land use compatibility; aesthetic compatibility; engineering suitability; ability to lease; and constructability. This process was undertaken for this proposed base station and the site at 2538 Sutherland Ave. was adjudged the

best for allowing Sprint PCS the opportunity to meets its coverage objectives and to provide telecommunications services to the public in the most efficient manner possible.

- 5. The Sprint PCS foot print for this community has many customer complaints due to the low signal strength for inbuilding coverage in this industrial and business area. This site is also a high capacity site cell split. It is crucial to off load traffic from the surrounding sites that provide coverage for downtown Knoxville. This proposed base station will allow Sprint PCS to provide a full range of PCS services in this area.
- 6. All towers, including the TVA transmission towers were tested for possible collocation possibilities. No other structure exists within the area needed to provide seamless coverage for Sprint PCS, issues such as the structural strength of existing towers or structures, electromagnetic interference with other carrier's antennas, fees or costs associated with co-location on an existing structure, were not relevant to the decision to construct this base station rather than collocate.
- 7. The tower to be located in Knoxville City is designed to be no higher than necessary to provide telecommunications services to the City of Knoxville and the State of Tennessee. No alternative technology that is deployed as a part of the Sprint PCS metwork exists to replace this proposed base station.
- 8. It is the standard business practice of Sprint PCS to allow for and to facilitate co-location of additional tenants on all towers it constructs. The proposed tower will accommodate at least two additional tenants.
- 9. Sprint PCS will comply with all applicable Federal Communications Commission and Federal Aviation Administration rules and regulations in the placement, design, construction and operation of this base station

Further, Affiant saith not.

Bryan Smith, Sprint PCS

Sworn to and Subscribed before me This 542 day of Opal 1 2006

Durly 1 17

KX65X502 Valuateer Blvd.

Notary Public

My Commission Expires: Due 7, 58

EXH	EXHIBIT 7.							
LANI	LAND USE/WIRELESS FACILITIES MATRIX	Co- Location	Stealth Structure	Low Monopole Below 90'	Moderate Monopole	Tall Monopole	Lattice Tower	Guyed Tower
	Industrial/Business Park			e e				
•	Industrial Use							
.es	Pre-approved Government-owned Property							
Αγ	Urban Expressway Corridor							
ļļur	Rural/Heavily Wooded							
ortu	Pasture							
ddc	Central Business District							
)	Office/Commercial Corridor	e protection						
	Shopping Center	**************************************						
				7				
se	Within 500' of a residence							
91A	Rural Residential							
, 9vif	Non-residential Properties in a Residential Area (church, cemetery, library, etc.)							
sue	Multi-family Residential	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)						
S	On Hill Below Ridgeline							
	Conservation Open Space							
SE	Scenic Highway							
:91A	Public Park							
əəl	Ridge Top/Ridge Line							
qsp	Scenic Vista	gia -						
ΙΟΛ	Historic District/Site							
1	Single-family Residential	18.5						
	Vacant Residential Lot							
•			Encouraged		Neutral			Discouraged

SPRINT PCS, INC.

USE ON REVIEW APPLICATION # 5-A-06-UR

CONSULTANT'S SUMMARY

2538 SUTHERLAND AVENUE SITE REQUEST

Location: 2538 Sutherland Avenue (City of Knoxville)

Proposed Tower Height: 120 feet Monopole

Address: 2538 Sutherland Avenue

Knoxville, Tennessee

District: Central City Map Number: 108A Parcel G009

Use: Telecommunications antenna support structure

Zoning: I-2--Warehouse and Manufacturing District

Variances and waivers: None requested or required.

Need: The applicant is a communications carrier that provides communication service to area citizens. The applicant in this case is Sprint PCS, a licensed PCS carrier by the Federal Communications Commission.

Instant Proposal: Construct a 120 foot monopole type support structure.

Consultant's Recommendation: The site meets the requirements of the Ordinance and the Support material proves adequate justification for the site proposed.

REPORT TO

METROPOLITAN PLANNING COMMISSION

for

Proposed Telecommunications Tower Site located at 2538 Sutherland Avenue Knoxville, TN

SPRINT PCS INC.

UOR 5-A-06-UR

COMPLIANCE WITH

THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE

4/20/2006

The proposed site for the applicant is a 120 foot monopole antenna support structure (including antennas and lightning rod) to be located at 2538 Sutherland Avenue in the City of Knoxville. The supporting material from applicant has been reviewed for technical and Federal/State legal compliance. This is a new telecommunications site.

REQUESTED

- 1. Location. The location is within the City of Knoxville limits in Central City and is located on Tax Map Number 108A Parcel G009
- 2. Zoning. I-2--Restricted Manufacturing and Warehouse District
- 3. **Tower height.** The requested height is 120 feet (including lightning rod) above ground level will support up to one additional telecommunications carrier antennas for a total of 2 users. Lighting will not be required on this structure.
- 4 Variances The set back requirements in Article 5 Section 20 of the Ordinance for the City of Knoxville for I-2 are met with the instant proposal. Thus, no additional variance is required for the tower to be located at the proposed location.
- 5. **Site**. This application is for the construction of a new monopole type antenna support structure to be located at the rear of an industrial site used for manufacturing and behind a large warehouse type building. The proposed site is immediately adjacent to a residential area within the I-2 zone to the south and west and across the street. (See Photos in the Exhibits).

- 6. **Use.** This antenna support structure will be used for telecommunications with the present state of the art communications technology using PCS and cellular communication sources. The applicant, a carrier operator, has committed to allowing one additional user on the structure should the need arise at rates in keeping with the other operators in the Knox area.
- 7. **Setbacks**. The setback requirements in Article 4 Section 16 for I-2 construction is a minimum 25 feet from any property line. (Art. 4 Section 16(E)(2-3) see also Article 5 Section 20 (B)(2). The applicant meets those requirements.
- 8. **Height**. The proposed monopole structure will be 120 feet overall height. However, this is necessary to meet line of site clearance requirements and to support an additional carrier in the future without the need to construct new antenna support facilities as discussed elsewhere in this report. (*Art. 5*, *Section 20 of the Ordinance.*)
- 9 **Alternatives:** There are no alternative antenna support structures anywhere in the area. The nearest support structure is a monopole structure about a mile west of the proposed site.
- 10. **Facilities Plan Compliance:** The proposed site is in an industrially zoned area (I-2). There are residents located within that zoning and near the proposed facility and well within 500 feet of the proposed tower site. However, the area as a whole meets the Opportunity Area definition of the Facilities Plan even though normally it would be considered a Sensitive or Avoidance area were the residential homes zoned R, which is not the case here. The proposed site is behind a warehouse/manufacturing facility on Sutherland Avenue. (See aerial photo attached.)

EVALUATION

The following is a list of items reviewed:

Zoning Ordinance for Knox Tennessee by Metropolitan Planning Commission---Telecommunication Facilities Section (as amended thru November 1, 2001)

The MPC Wireless Facilities Plan dated 2004.

Check for other existing towers capable of supporting the load and elevation clearance requested by the applicant herein and within 1 mile radius of site.

Check for Antenna Support Structure stress analysis for co-location users' equipment support

Review support structure drawings and specifications with applicant

Review FAA lighting and marking requirements and proposals

Review FCC requirements regarding signal coverage, towers and lighting

Review applicant's justification for site in compliance with the FCC's requirements for telecommunication company providers compliance with required coverage for the use of the general public.

Review Site plan by applicant

Check Zoning

Check setbacks for building and antenna support structure

Check landscape plan

Check proximity to other structures and district boundaries

Check nature of surrounding land uses Check surrounding foliage and tree coverage

Check design of tower for esthetic changes

Check height requirements necessary for coverage

Check separation from other towers

Check frequencies proposed for possible interference to TV and radio reception in the immediate vicinity of the structure.

DISCUSSION

I visited the proposed tower site that is a part of this review. Further, I reviewed their specifications and requirements.

The applicant has proposed a site that is located just off Sutherland Avenue near Emmett Street and Vandeventer Avenue behind an industrial businesses. There are no other support structures within a 1 mile radius of this site.

The location is an area zoned I-2. It should be noted that there are residential homes across the screen on Vandeventer Ave and immediately adjacent to the proposed site on the west. Normally they would constitute a Sensitive or an Avoidance area within the definitions in the Wireless Facilities Plan, however, because they are located within an Industrial Zone they would fall within the Opportunity area within that definition.

Lighting for the structure will not be required.

The new support structure will be located to the rear of the property behind a large warehouse type steel building.

There is a need for the added signal coverage as proposed by the carrier, Sprint PCS, in the area of coverage proposed herein as there is lack of coverage in the area below those levels necessary for seamless communications by the applicant

SUMMARY

- (1) The proposed antenna support structure is a 120 foot monopole including antennas. There are no lighting requests for this structure nor are any required by the FAA.
- (2) A review of the structure stress analysis on the proposed structure and specifications support the use of the tower by two other potential users in the future
- (3) The structure design meets or exceeds FCC and EIA requirements.
- (4) The area immediately to the south across the road and behind the proposed site is zoned Industrial. There is a residence immediately to the west of the proposed site from the site that is about 42 feet feet from the proposed tower location and across the street from the site on Vandeventer Avenue, however, again, these residences are within the I-2 zoned area.
- (5) There is tree coverage in the area, but the structure will have no impact on the trees.
- (6) There is no general use technology (such as satellite communications) that is available at the present time nor in the immediate future that would negate the need for the structure. However, should such a technology become available and the structure of no further use, the Ordinance at Article 5.20(C) requires it to be removed.
- (7) The proposed equipment housing facility is an outdoor cabinet and will have no impact on the aesthetics of the adjacent land uses. The landscape plan indicates that the fenced area will be surrounded by vegetation as coverage for the location. Further the short structure should have no impact on the aesthetics of the area.
- (8) The applicant has received authorization from the various governmental agencies, including the Federal Communications Commission, to provide communication service to the citizens of Knoxville, Tennessee.
- (9) The requested site will have little impact on the community

involved when compared with the benefits to be derived from the advanced service offered by the applicant.

- (10) There are no other antenna support structures within 1 mile of the proposed site that are usable for the coverage required.
- (11) There are no additional setback requirements for the proposed site.
- (12) The proposed site and structure will have no environmental impact within the federal guidelines.
- (13) No variances or exceptions to the Knoxville City Ordinance are required for this site.
- (14) The nature of the development in the surrounding area is not such as to pose a potential hazard to the proposed tower or to create an undesirable environment for the proposed tower.
- (15) The proposed frequencies to be used by the various applicants who plan to use the site should present no problem nor any interference to area reception of commercial television or radio signals.
- (16) Assuming that there are 2 carriers operating cellular or PCS transmitters/receivers at this site and all are operating at the same time, the radiation produced by the combination of all the users at the same time using the standards and protocols proposed and used by the carriers today, will be considerably below that established by the Federal Communications Commission and the EPA as creating any danger to humans or animals.
- (17) There is a need for the structure in this area to provide for the wide spectrum wireless internet service and for other wireless voice and data services to be provided under government regulation by the various proposed carriers who plan to use the site.

SUMMARY

In light of the analysis and review of documents, it is my professional opinion that the applicant **has made a showing of justification** for the site at 2538 Sutherland Avenue that it meets all requirements of the Ordinance and is required for the applicant to meet their coverage requirements for the City of Knoxville.

Respectfully submitted,

Consultary to MPC











