

KNOXVILLE/KNOX COUNTY METROPOLITAN PLANNING COMMISSION USE ON REVIEW REPORT

► FILE #: 1-K-08-UR AGENDA ITEM #: 91

AGENDA DATE: 1/10/2008

► APPLICANT: U. S. CELLULAR CORP.

OWNER(S): HARVEST MINISTRIES

TAX ID NUMBER: 92 F C 007

JURISDICTION: City Council District 3

► LOCATION: North side of McKamey Rd., west of Cain Rd.

► APPX. SIZE OF TRACT: 5625 square feet

SECTOR PLAN: Northwest County

GROWTH POLICY PLAN: Urban Growth Area (Inside City Limits)

ACCESSIBILITY: Access is via McKamey Rd. a major collector street with a 18' pavement

width within a 40' to 60' right-of-way.

UTILITIES: Water Source: Knoxville Utilities Board

Sewer Source: Knoxville Utilities Board

WATERSHED: Third Creek

► ZONING: RP-1 (Planned Residential)

► EXISTING LAND USE: Church and vacant land

► PROPOSED USE: 190' monopole telecommunications tower

HISTORY OF ZONING: None noted

SURROUNDING LAND North: Vacant land and residences / RP-1 (Planned Residential) & R-1

USE AND ZONING: (Low Density Residential)

South: Residences / RP-1 (Planned Residential)

East: Vacant land and residences / RP-1 (Planned Residential), R-1

(Low Density Residential) & A-1 (General Agricultural)

West: Church, vacant land and residences / RP-1 (Planned Residential)

& R-1 (Low Density Residential)

NEIGHBORHOOD CONTEXT: The site is located near the center of a 29 acre tract that includes an existing

church and vacant land surrounded by low density residential subdivisions.

STAFF RECOMMENDATION:

- ► APPROVE the request for a 190' monopole telecommunications tower in the RP-1 zoning district, subject to the following 7 conditions:
 - 1. Meeting all applicable requirements of the Knoxville Zoning Ordinance.
 - 2. Obtaining all Federal, State and local approvals for the proposed tower.
 - 3. Relocation of the access drive/easement for the tower lease parcel to the existing access drive for the church.
 - 4. Installation of landscaping as shown on the development plan within six months of the tower becoming operational.
 - 5. Meeting all applicable requirements of the Knoxville Engineering Division.

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- 6. Since the FAA does not require any lighting for this facility, there shall be no lighting on the tower.
- 7. At the time of the request for a building permit, posting a bond or other approved financial surety that would ensure the removal of the tower if it is abandoned.

With the conditions noted above, this request meets all criteria for a use-on-review in the RP-1 zoning district.

COMMENTS:

This is a request for a new 190' monopole telecommunications tower to be located within a 5,625 square foot lease area located on a 29.08 acre parcel owned by Harvest Community Church. Over half of the site is wooded with major power lines crossing the property. The tower will be located along the northern edge of the wooded area on the south side of the property and on the west side of the powerline easement. The tower will be approximately 500' north of McKamey Rd.

The proposed tower site will have access to McKamey Rd. by a 30' wide access easement. The proposed driveway is located along the west side of the powerline easement. Staff is recommending denial of the proposed access drive due to the steep grade off of McKamey Rd. and very limited sight distance due to the curves in McKamey Rd. and existing vegetation. Staff is recommending a condition that the tower approval is subject to the relocation of the access drive for the tower to the existing access drive for the church (west side of church building).

The subject property is zoned RP-1 (Planned Residential) and telecommunication towers are considered as a use on review in this district. The proposed tower is required to be located 209' (110% of the tower height) from the nearest residence. The nearest residence is located approximately 300' to the southeast of the proposed tower.

According to the Knoxville-Knox County Wireless Communications Facility Plan, pasture and rural/heavily wooded areas are considered "Opportunity Areas" for telecommunication towers. Since the proposed site is located within 500' of a residence it is also considered to be within a "Sensitive Area". At a proposed height of 190', the Plan discourages tall towers near residences. Since the adoption of the Facility Plan, the Knox County Zoning Ordinance has been amended to increase setback from residences to 110% of the towers height. The proposed telecommunication tower far exceeds that requirement.

The visual impact on nearby residences will be minimal due to the fact that the proposed site is heavily wooded. This vegetation will provide a natural buffer between the tower and adjacent residences. The applicant will be required to install a 6' high security fence prior to the tower becoming operational. A landscape screen is also being provided around the site.

The tower is designed so it will collapse upon itself in case of a natural disaster or other failure. FAA does not require any lighting for the tower. The tower will support up to 4 telecommunication carrier antenna arrays. U. S. Cellular Corporation will be the principal client for the tower. A letter has been submitted stating that U. S. Cellular Corporation agrees to make this facility available to other wireless providers for co-location. There are no other towers within one mile of the proposed tower that could provide the coverage needed by the applicant

Attached to the staff report are several support documents, including a report from MPC's tower consultant, Mr. Larry E. Perry. Mr. Perry's report describes the proposal and highlights his findings. Mr. Perry concludes that the 190' tower is technically justified by the materials submitted by the applicant (see attached report).

EFFECT OF THE PROPOSAL ON THE SUBJECT PROPERTY, SURROUNDING PROPERTY AND THE COMMUNITY AS A WHOLE

- 1. The proposed development will have minimal impact on local services since utilities are available to serve this site.
- 2. The tower, being located within a low density residential area, is required to be screened. Since this 29.08 acre parcel is heavily wooded and a landscaped screen will be provided around the tower site, the impact on nearby residences will be minimal.

CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOXVILLE ZONING ORDINANCE

1. The proposed commercial telecommunications tower at this location meets the standards required in the RP-1 zoning district.

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2. The proposed tower with the recommended conditions is consistent with the general standards for uses permitted on review: The proposed development is consistent with the adopted plans and policies of the General Plan and Northwest County Sector Plan. The use is in harmony with the general purpose and intent o the Zoning Ordinance. Since this is a heavily wooded area, the use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas.

CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

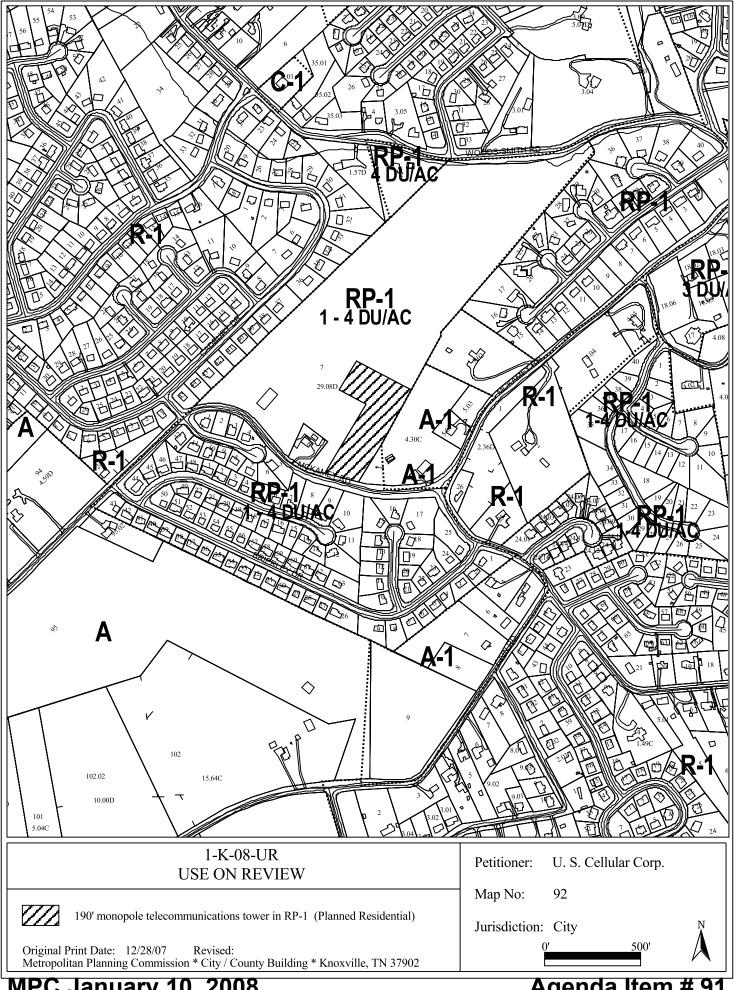
- 1. The Northwest County Sector Plan proposes low density residential uses for this area. The proposed development is consistent with this land designation.
- 2. The Wireless Communications Facility Plan identifies the proposed 190' monopole as a "tall" monopole. Under the guidelines in the Tower Placement section of the Facility Plan, the proposed tower falls within both the "Opportunity Area" and "Sensitive Area" categories. The Plan takes a neutral position on tall monopoles located in "Opportunity Areas" While tall towers are discouraged in residential areas, the required setbacks reduce the impact to nearby residences. (see attached matrix).

ESTIMATED TRAFFIC IMPACT: Not calculated.

ESTIMATED STUDENT YIELD: Not applicable.

MPC's approval or denial of this request is final, unless the action is appealed to the Knoxville City Council. The date of the Knoxville City Council hearing will depend on when the appeal application is filed. Appellants have 15 days to appeal an MPC decision in the City.

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US CELLULAR

Telecommunications Tower Site Review

USE ON REVIEW APPLICATION # 1-K-08-UR

CONSULTANT'S SUMMARY

Fair Oaks Site

Knoxville City

Location: 4739 McKamey Road

Proposed Tower Height: 198 foot Monopole

Address: 4739 McKamey Road

Knoxville, Tennessee

District: # 3 City Map Number: 092FC Parcel 007

Use: Telecommunications antenna support structure

Zoning: RP 1 (Planned Residential)

Variances and waivers: None required or requested

Need: The applicant is US Cellular a licensed PCS carrier by the Federal Communications Commission and possibly other users.

Instant Proposal: Construct a 198 foot monopole type support structure.

Consultant's Recommendation: The site and application meets the requirements of the Ordinance and the spirit of the Facilities Plan. However, before issuing a building permit, I would HIGHLY Recommend that the applicant reassess the access road location. A better location would be from the Church parking lot to the site rather than from McKamey Road Direct. See the attached satellite photo for suggested access change.

REPORT TO

METROPOLITAN PLANNING COMMISSION

for

Proposed Telecommunications Tower Site Located at 4739 McKamey Road Knoxville, TN known as

FAIR OAKS SITE

US CELLULAR

UOR 1-K-08-UR

COMPLIANCE WITH

THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE

1/2/2008

The proposed site for the applicant is a 198 foot monopole antenna support structure (including antennas and lightning rod) to be located just off McKamey Road. The supporting material from applicant has been reviewed for technical and Federal/State legal compliance As well as with the Knoxville City Wireless Communication Facilities Plan from 2002. This is a new telecommunications site. This site is known as a fill site (explained in the report).

REQUESTED

- 1. **Location.** The location is within the **City** of Knoxville limits in **District 3** and is located on **Tax Map Number** 092FC **Parcel** 007
 - 2. Zoning. RP 1 (Planned Residential)
- 3. **Tower height.** The requested height is 198 feet above ground level will support up to 3 additional telecommunications carrier antennas for a total of 4 users. Lighting will not be required on this structure.
- 4. Variances. The set back requirements in Article 5 of the Ordinance for Knoxville City for "RP 1" sites requires that the structure be set back a minimum distance of 110% of the structure height or in this case 218 feet from the nearest property line. The proposed site meets that requirement and no variances are required.

- 5. **Site** This application is for the construction of a new monopole type antenna support structure to be located in a partially wooded parcel and is on a ridgetop overlooking McKamey Road.
- 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 is US Cellular Corporation and there is 3 possible additional telecommunications users for the facility.
- 7 **Setbacks**. The setback requirements are that the facility must be 110% height of the tower from any dwelling unit/property line. The applicant meets that requirement and no variances are required.
 - 8. **Height**. The proposed structure is for 198 feet.

EVALUATION

The following is a list of items reviewed:

Zoning Ordinance for Knoxville Tennessee by Metropolitan Planning Commission---Telecommunication Facilities Section (as amended thru October 1, 2004)

Knoxville City Wireless Communications Facilities Plan dated 2002.

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 for compliance with Wireless Communication Facility 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 and discussed the area with the applicant.

The site elevation at this location is 1158 feet. It is located very near TVA high voltage power lines on a hill where there are existing structures for the power lines.

The request is for a 198 foot monopole of which US Cellular will use the top 15 feet and the additional usable lower 55 feet is for other carriers' expansion.

This a "fill" site. By that is meant that the coverage is inadequate in the area at the present from present facilities in the area and that the site is to be used as primary signal coverage to "fill in" a hole in the present coverage.

The site is a fairly high elevation location and by the addition of a cell site here, it would probably eliminate the need for other sites nearby.

The proposed structure should not affect adjacent property as it is on a parcel of land adjacent to a church facility and near high tension power lines and the associated structures.

It is located in an RP-1 zoned area.

I have a concern about the access road into the site in that it is proposed to being in the curve of McKamey Road and between a largely wooded area that screens on coming traffic from the road. It could be a hazardous entrance for on coming traffic. I would suggest that the applicant reassess the ingress and egress to the site to the rear of the church parking lot adjacent to the proposed site area.

DISCUSSION RE FACILITIES PLAN

The Facilities plan is a guideline adopted by the MPC in 2002 for the placement and appearance of wireless communications facilities. The

following discussion is based on this application and how it relates to the Plan. The plan is an advisory plan and not a legal requirement.

- (1) **View Protection**--The structure (198 feet) coupled with no lighting requirements and located near TVA transmission lines and structures which already dominate the view, and thus, this structure should have no or minimal impact on the view in the area.
- (2) Land Use Compatibility---The proposed site is on a ridge adjacent to TVA transmission facilities and structures. The structure and associated building/facilities would be compatible with the local land use and the surrounding area is wooded to the south and east with proposed landscaping to the site in addition. The site will be unmanned and will have no impact on noise, traffic or air pollution.
- (3) **Design Compatibility**---The proposed landscaping and facility design would blend in with surrounding agricultural land usage and design. The new structure will be a monopole type structure which is the least obtrusive type antenna support structures.
- (A) **Opportunity Areas**—This proposed site is in an area zoned Planned Residential (RP-1). It is unlikely to become a blighting influence on the surrounding area due to the close proximity to existing TVA transmission towers and lines.
- (B) **Sensitive Areas**---This site is not in a sensitive area as it is isolated and surrounded by woods and preexisting transmission lines.
- (C) **Avoidance Areas**—This location is in an avoidance area in that it is located on a ridgetop in a low density residential area, but that is offset by the adjacency of the TVA power lines.

SUMMARY

- (1) The proposed antenna support structure is a 198 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 monopole by one other potential user in the future.
- (3) The structure design meets or exceeds FCC and EIA requirements.
- (4) The area surrounding the site is slightly wooded and zoned Residential. There are no residences within 110% of the tower height.

- (5) 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.
- (6) 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 wooded vegetation that is presently existing. Should additional landscaping be required, the applicant is agreeable to providing same.
- (7) 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.
- (8) 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.
- (9) There are no other antenna support structures within 1 mile of the proposed site that are usable for the coverage required.
- (10) There are waivers requested or required.
- (11) The proposed site and structure will have no environmental impact within the federal guidelines.
- (12) 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 structure.
- (13) Assuming that there are 3 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.
- (14) 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 sit

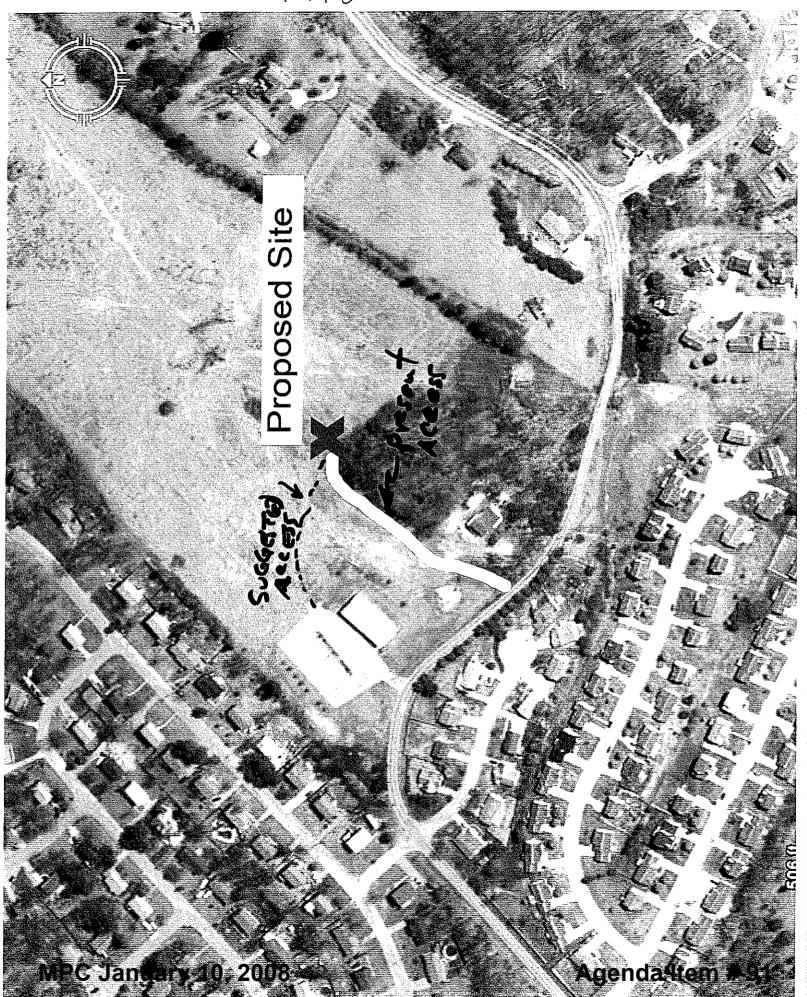
(15) Access road concern. I have a concern about the proposed access road as seen on the satellite photo in white. The access is to McKamey Road in a curve and with a heavy shading of trees in the bend of the road. This will be a hazardous condition for motorists on McKamey Road.

RECOMMENDATION

In light of the analysis and review of documents, it is my professional opinion that the applicant meets all requirements of the Ordinance and the spirit of the Facilities Plan as discussed above and is required for the applicant to meet their coverage requirements for the City of Knoxville. However, before issuing a building permit, I would HIGHLY Recommend that the applicant reassess the access road location. A better location would be from the Church parking lot to the site rather than from McKamey Road Direct. See the attached satellite photo for suggested access change.

Respectfully submitted,

Consultant to MPC



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R. R. KRAMER (1888-1966) CARTER B. WALL (1915-1968) ANDREW JOHNSON (1918-1985) JACKSON C. KRAMER (1921-1993) R. ARNOLD KRAMER (1918-1993)

December 3, 2007

Metropolitan Planning Commission City-County Building, Suite 403 400 Main Avenue Knoxville, Tennessee 37902

Re: U.S. Cellular Corporation

Application for Tower Site Use-On-Review

Dear Sir or Madam:

Please be advised that the undersigned represents U.S. Cellular Corporation ("USCC") USCC hereby files the enclosed Use-On-Review Application and requests that it be placed on the agenda for the January 10, 2008 Metropolitan Planning Commission meeting. Such Use-On-Review Application requests approval for a proposed cellular communications monopole to be located on property owned by Harvest Ministries at 4739 McKamey Road in the City of Knoxville, Knox County, Tennessee. Accordingly, enclosed herewith please find the following items:

- Completed Application Form as signed by an authorized representative of USCC and as signed by an authorized representative of the property owner, Harvest Ministries
- 2 Information Summary and Table of Contents
- Ten (10) copies of the Development Plan with Exhibits 1 through 12 attached
- 4 USCC's check in the amount of Six Hundred Ninety-Five Dollars (\$695.00), made payable to the Metropolitan Planning Commission in payment of the review fee
- 5. USCC's check in the amount of One Thousand Five Hundred Dollars (\$1,500.00), made payable to the Metropolitan Planning Commission for the Escrow deposit

As noted, USCC is proposing that a cellular communications monopole be placed on property owned by Harvest Ministries at 4739 McKamey Road in the City of Knoxville, Knox County, Tennessee USCC has entered into a lease with the property owner for the proposed site

USCC recognizes that pursuant to Article 5 20(B)(1)(f) of the City of Knoxville Zoning Ordinance, a professional engineering consultant qualified in the design and installation of wireless communications facilities may be employed to review its application. Accordingly, the One Thousand Five Hundred Dollar (\$1,500 00) escrow fee specified in the Zoning Ordinance is enclosed. USCC further understands that such fee shall not exceed One Thousand Five Hundred Dollars (\$1,500 00) in total

USCC proposes to construct a 190 foot monopole structure. Since the proposed monopole will be less than 200 feet in height, FAA regulations will not require the monopole to be lighted. In addition, as required by Article 5 20(B)(1)(2) of the City of Knoxville Zoning Ordinance, the monopole will be constructed to support at least three (3) antenna arrays for colocation purposes. USCC's letter of intent setting forth its commitment to permit co-location on the proposed monopole is included with the Application as Exhibit 4

The monopole is proposed for this area in order to fill a radio frequency coverage gap experienced by USCC along Oak Ridge Highway, McKamey Road, Woods Smith Road, Johnson Road, Ball Camp Pike and other areas in the vicinity, and to address capacity issues on existing USCC sites Moreover, signal hand-offs from USCC's existing sites surrounding this area are impeded because of terrain blocking and because of capacity constraints.

Radio frequency coverage maps showing coverage with and without the proposed monopole are attached to the Application as Exhibits 6 and 7

In an effort to address tower proliferation concerns, USCC performed a search in the proposed coverage area for other existing towers on which co-location might be possible. As noted on Exhibit 1, two existing towers are located within a one-mile search ring, but neither tower meets USCC's needs. The first structure is owned by American Tower and is located at 6305 Vance Lane. This structure is approximately one-half mile away from USCC's existing Middlebrook cell site. The close proximity to USCC's existing Middlebrook site results in duplication of USCC's existing signal coverage in the area, but does not alleviate the coverage gaps because USCC would experience terrain blockage similar to that which USCC already experiences from its existing Middlebrook cell site. The second structure is a Spectrasite tower located on Presley Lake Road, which is approximately one mile from USCC's proposed location and at the edge of the one-mile search ring. The Spectrasite structure is located in close proximity to USCC's existing Amherst cell site, and co-location by USCC on the Spectrasite tower would result in similar terrain blockage to what USCC currently experiences at its Amherst cell site. In other words, location on either the existing American Tower structure or the existing Spectrasite structure would result in duplicating coverage that USCC already obtains from its

Metropolitan Planning Commission December 3, 2007 Page 3

Middlebrook and Amherst cell sites, while not alleviating the coverage issues that the proposed Fair Oaks cell site will eliminate

USCC also searched for other existing structures within the area of the proposed site on which co-location might be feasible USCC contacted the Tennessee Valley Authority to discuss possible co-location on TVA's existing transmission towers located immediately adjacent to the proposed site. However, such towers are only eighty (80) feet in height and thus do not provide the necessary elevation. In addition, these transmission lines are located at the intersection of two major electrical grid supply lines. Attaching additional equipment to such towers would require the lines to be shut down during construction, which TVA stated is not feasible. No other suitable existing structures are present in this area.

This proposed monopole is also consistent with the Goals, Objectives and Policies of the Wireless Communications Facilities Plan ("Plan") adopted by the Metropolitan Planning Commission in September, 2002 Although the proposed site is residentially zoned, the site is immediately adjacent to an existing major TVA electric transmission line, is located on a large tract with no residential structures, and is located below the ridgeline

In addition, the proposed monopole meets the Plan's objective of being separated from both nearby property lines and any nearby residents by a distance of at least one hundred ten percent (110%) of the tower height (in this instance, two hundred nine (209) feet) It should be noted that no residential structures are located within two hundred nine (209) feet of the proposed site

Thank you very much for your assistance in this matter. Should you need any additional information, please do not hesitate to contact the undersigned

Yours yery, truly

Jackson G Kramer

JGK/tsg Enclosures

J:\US CELLULAR\FAIR OAKS ZONING MATTER\METROPOLITAN PLANNING COMMISSION 12-3-07 DOC

INFORMATION SUMMARY AND TABLE OF CONTENTS

USE ON REVIEW APPLICATION FOR

U. S. CELLULAR'S FAIR OAKS SITE NUMBER 223477

- Site Plan Construction Drawings, Page C0.01
- Two towers registered with the FCC as Telecommunications Towers were found on the FCC data base within a one-mile search ring (See Exhibit 1) As set forth in Exhibit 8, neither of such towers is a feasible co-location alternative FCC Data Base results of search ring is attached as Exhibit 2 (Note: Search ring shown on Exhibit 2 is a five-mile radius)
- 3 & 4 Application is made directly by the carrier -

U. S. Cellular Corporation 9731 Cogdill Road, Suite 200 Knoxville, Tennessee 37932

Contact:

John Locascio

Telephone: Facsimile:

(865) 777-7039

(865) 777-7012

- 5 Basic Tower Information:
 - (a) U S Cellular Corporation ("USCC") proposes a monopole to be manufactured by Sabre Communications Corporation. The pole will be located on property owned by Harvest Ministries at 4739 McKamey Road in the City of Knoxville, Knox County, Tennessee. The equipment compound and the base of the pole will be enclosed within a chain link fence six (6) feet in height
 - (b) The monopole will be one hundred ninety (190) feet in height
 - (c) Since the monopole will be less than 200 feet in height, no FAA lighting will be necessary.
 - (d) The Sabre Communications Corporation specifications for an almost identical tower are provided in Exhibit 3 The monopole is designed and will be constructed to permit co-location for at least three additional carriers
 - (e) An area seventy-five (75) feet by seventy-five (75) feet will be enclosed by a chain link fence six (6) feet in height and topped with three (3) strands of

barbed wire. See Construction Drawings, p. C1 01. The monopole and all ancillary equipment will be located within this fenced compound

6 USCC's Letter of Intent committing itself to allow shared use of the proposed monopole is attached as Exhibit 4 Other likely candidates for co-location:

AT&T
Verizon
Sprint/Nextel
I-Mobile
Cricket (Leap Wireless)

7. Zoning Map:

Proposed site is zoned RP-1 1-4 DU/AC Site zoning and zoning of adjacent parcels are shown on Exhibit 5 Map of larger area within one mile of proposed site to be provided by the Metropolitan Planning Commission

- 8 Coverage Map without proposed site Exhibit 6
- 9 Coverage Map with proposed site Exhibit 7
- 10. Proposed landscaping Landscape Plan, Page L1 01 of Construction Drawings
- 11 Technical Justifications Narrative Exhibit 8
- 12 Variances or Waivers from Ordinance Exhibit 9
- 13 Photographs of proposed site <u>Collective Exhibit 10</u>
- Safety Statements Exhibit 11
- Photosimulation of monopole on proposed site Exhibit 12

I/US CELLUL AR\FAIR OAKS ZONING MAITER\INFORMATION SUMMARY AND TABLE OF CONTENTS 12-3-07 DOC

公US Cellular 9731 COGDILL ROAD KNOXVILLE, TN 37932 (865)777-7030

KNOXAILLE TENNESSEE 37932

10133 SHERRILL BLVD, SUITE 200

SITE SUMMARY

GO.02 GENERAL NOTES
GO.03 SITE WORK NOTES SITENOTES

SITE PLANS

LANDSCAPE PLANS

O Delorme Street Atlas 2004 USA

A2U 400S asltA tasvi2 am

ELECTRICAL PLANS

U.S. CELLULAR FAIR OAKS CHECKED BY, MAIP PROJ. MCR. MAIP

TITLE SHEET / SITE INFORMATION PROJECT # 33477-22

SITE NUMBER #223-477 SITE NAME FAIR OAKS

U.S. CELLULAR

RAW LAND

FAIR OAKS

SITE OWNER
U.S. CELLULAR CORPORATION
9731 COGDILL ROAD, SUITE 200
KNOXVILLE, TN. 37932 SITE ADDRESS 4739 MEKAMEY ROAD KNOXVILLE, TN 37921

APPLICANT U.S. CELLULAR CORPORATION 9731 COGDILL ROAD. SUITE 200 KNOXVILLE. TN. 37932

RP-1 (1-4 DUIAc.) AREA OF LEASE 0.129 ACRES 5,625 SQ. FT. ZONING

WITH TELECOMMUNICATIONS ANTENNAE

190' MONOPOLE TOWER

#223-477

AND MULTIPLE CARRIERS

Fair Oaks

PARCEL NUMBERIS) TAXMAP 092, GROUP C, PARCEL 007

TITLE SHEET! SITE INFORMATION 60.01

SURVEY PLANS 1 OF 1 SITE SURVEY

SITE PLAN
ELEVATION &
PLATICION DETAIL
GRADING PLAN
GRADING PROFESS
GREWONG CETAILS
SITE WORK DETAILS
SITE WORK DETAILS

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LANDSCAPE PLAN 1.01

223-477

FROM WEST KNOXNILE (1-4075 AND PELLISSIPPI PARKWAY), TAKE 1-40 EAST APPROXIMATELY 5 MILES TO WEST (IILLS (EXIT #380), AT STOP LIGHT, TURN LEFT ONTO

FILE NO 33477-22 DATE: JULY 13, 2007

WAGGONER SUMNER &

BARGE

REGIONAL MAP

9 MILE TO LEFT TURN ONTO HELMBOLT ROAD NW. TRAVEL TO END AND TURN RIGH

4739 McKAMEY ROAD KNOXVILLE, TN 37921

SHEET INDEX

60.01

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DIRECTIONS TO SITE

CANNON, INC.

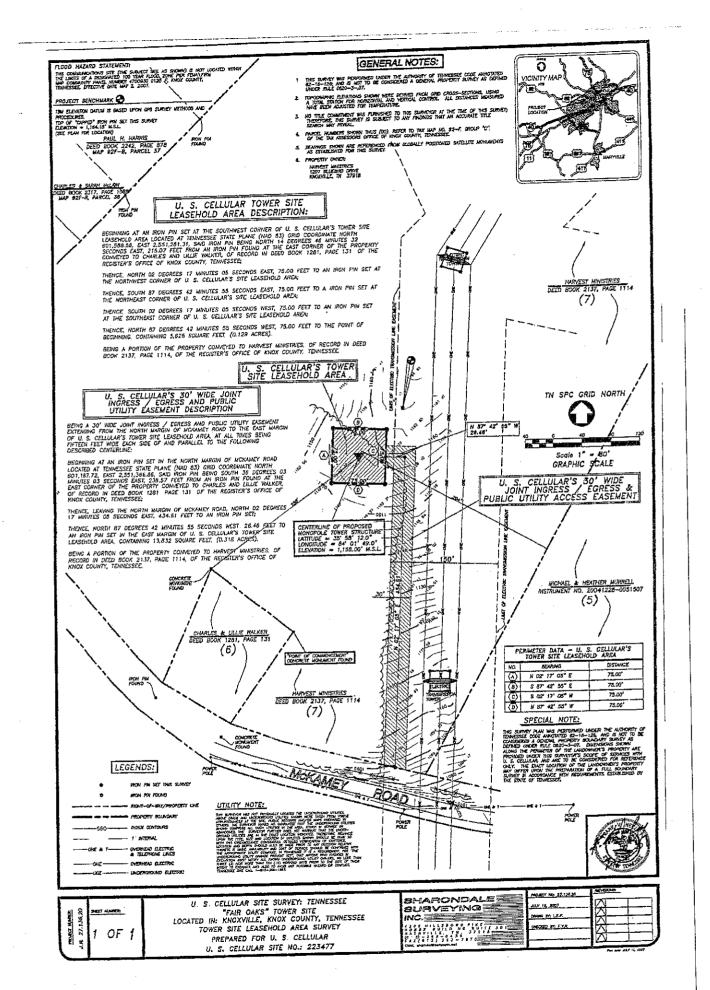
ENGINEERS ARCHITECTS PLANNERS LANDSCAPE ARCHITECTS AND SURVEYORS

10133 SHERRILL BLVD., SUITE 200 KNOXVILLE, TENNESSEE 37929 PH: (865) 637-2810

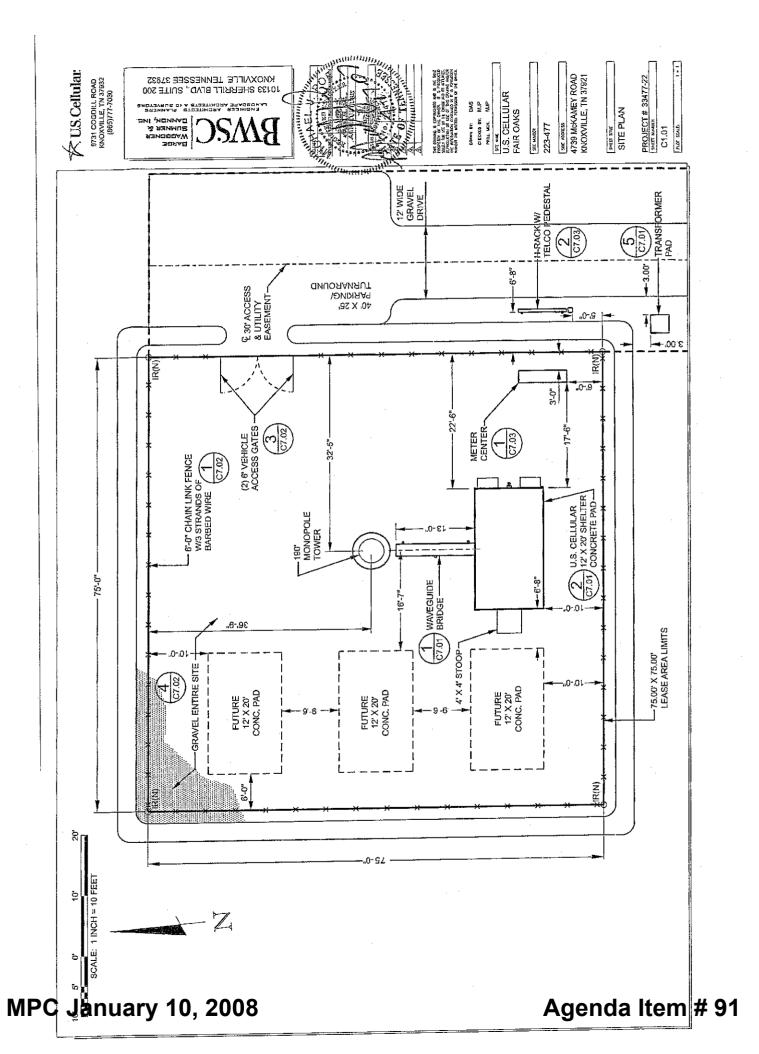
US. Cellular KNOXVILLE, TN 37932 9731 COGDILL ROAD, (865)777-7030 SUITE 200

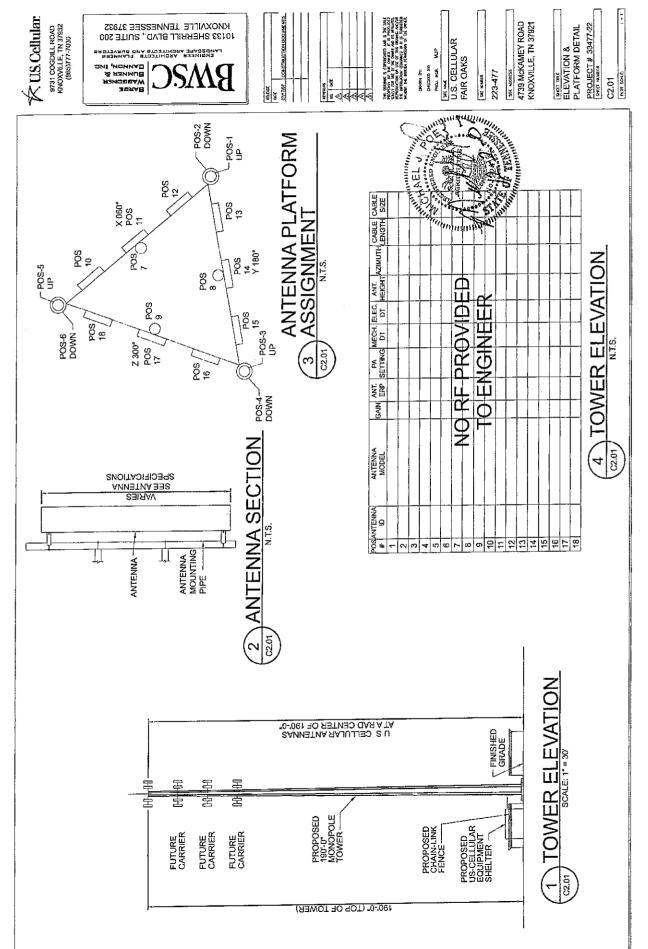
January 10, 2008

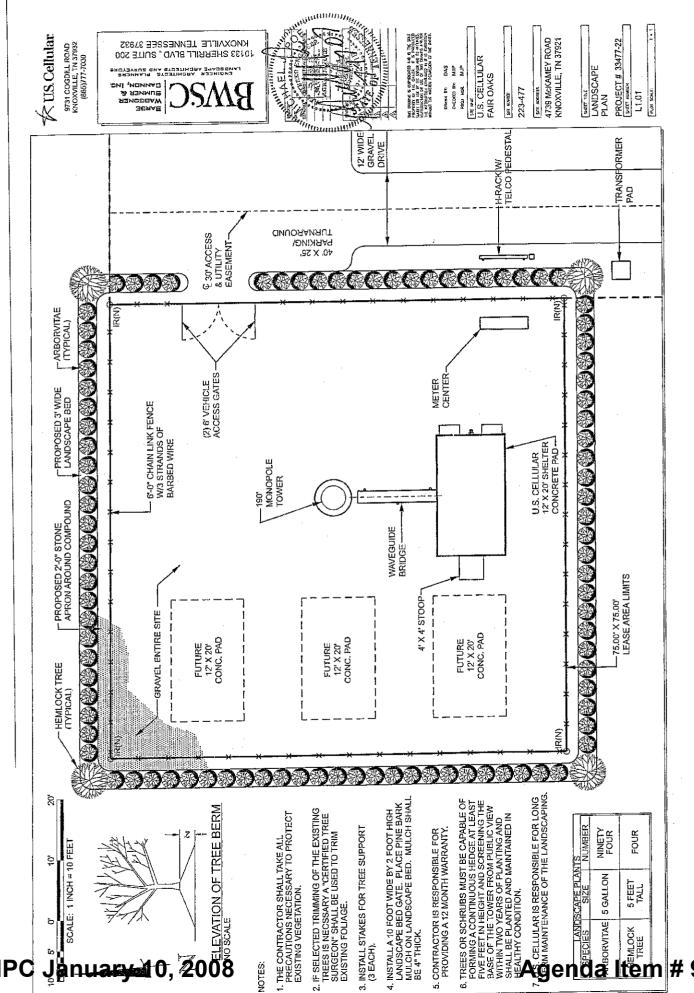
Agenda Item # 91



PROJECT # 33477-22 KUS.Cellular. KNOXAIFTE TENNESSEE 37932 10133 SHERRIFF BFAD ' SNITE 500 9731 COGDILL ROAD KNOXVILLE, TN 37932 (865)777-7030 4739 McKAMEY ROAD KNOXVILLE, TN 37921 SETBACK EXHIBIT PROJ. USR. MAP U.S. CELLULAR FAIR OAKS NSTRICTION DOC MUP MUP DRAWAL STY. CHECKED BY: ВАЯСЕ ЖАЗООИЕЯ БОИМЕЯ & САИМОИ, ІМС 223-477 STE ADDRESS The state of the s US CELLULAR PROPOSED 30' ACCESS AND UTILITY EASEMENT MICHAEL AND HEATHER MURRELL INSTRUMENT NO. 20041228-0051507 SCALE: 1 INCH = 100 FEE 8 CHARLES AND LILLIE WALKER D.B. 1281, PG. 131 ō 100' 50' -PROPOSED 190' TOWER —U.S. CELLULAR PROPOSED 75' X 76' LEASE AREA HARVEST MINISTRIES D.B. 2137, PG. 1114 MAP 092, PAR. 007 D.B. 2137, PG. 1114 MAP 092, PAR. 007 PROJECT BENCHMARK TOP OF CAPPED IRON PIN SET ELEV: 1164.15' CHARLES AND SARAH MCLAIN D.B. 2317, PG. 1088 MAP 092, PAR. 038 SET OR NEW IRON ROD EXISTING OR FOUND IRON ROD EXISTING OR FOUND MONUMENT PAUL H. HARRIS D.B. 2242, PG. 878 MAP 092, PAR. 037 EXISTING EASEMENT LINE LINE EXISTING PROPERTY LINE SURVEY CONTROL POINT PROPOSED ACCESS AND UTLITY EASEMENT PROPOSED LEASE LINE UTILITY POLE LEGEND FINCE O IR(N) O IR(O) MON ■ CP January 10, Agenda Item # 91 **MPC**







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November 30, 2007

Metropolitan Planning Commission of Knoxville/Knox County 4th Floor, City-County Building 400 Main Avenue Knoxville, Tennessee 37902

> Re: U.S. Cellular Corporation Proposed Fair Oaks Site

Dear Sir or Madam:

This letter is written to confirm U. S. Cellular Corporation=s (AUSCC@) commitment to shared use of its proposed cellular communications monopole site on McKamey Road in Knoxville, Knox County, Tennessee

As you are aware, City of Knoxville Zoning Ordinance Article 5.20(B)(1)(a) requires that any proposed communications tower 130 feet in height or greater be built to accommodate at least three antenna arrays for co-location purposes. USCC is proposing that the monopole on McKamey Road be 190 feet in height. As is evident from Page C2.01 of the engineering plan submitted with the Use on Review Application to which this letter is attached, the specifications show that USCC is constructing the tower to accommodate the required three antenna arrays.

Furthermore, please accept this letter as confirmation that pursuant to City of Knoxville Zoning Ordinance Article 5 20(B)(1)(b), USCC and its successors are committed to allowing shared use of the tower so long as any additional user agrees in writing to meet reasonable terms and conditions concerning use of USCC=s tower and so long as space on such tower remains available.



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I trust that this letter is sufficient to address the inquiries posed concerning shared use. However, should you need additional information, please do not hesitate to contact either the undersigned at (865) 777-7039 or USCC=s attorney, Jackson G. Kramer, at (865) 525-5134.

Yours very truly,

John Locascio

Senior Project Manager

J.\US Cellular\Fair Oaks Zoning Matter\Metropolitan Planning Commission from Locascio 11-30-07 doc

TECHNICAL JUSTIFICATION FOR PROPOSED FAIR OAKS CELL SITE 223477

Prepared by: Isaac Ndiaye RF Engineer US Cellular

Proposal: Build a digital only CDMA 2000 cellular telephone communications monopole at 4739 McKamey Road, Knoxville, Knox County, Tennessee on property owned and occupied by Harvest Community Church

Tower: US Cellular Corporation proposes to construct a 190-foot above ground level monopole structure. The proposed site is at 1,158 feet AMSL per the mandatory 2C survey. Because the height of the tower is less than 200 feet above ground level, it will require no lighting pursuant to FAA regulations.

RF Justification: US Cellular Corporation ("USCC") proposes to build this facility in this area to fill in radio frequency coverage gaps as well as strengthen coverage in the areas along Oak Ridge Highway, on McKamey Road, Woods Smith Road, Johnson Road, and Ball Camp Pike, and other areas in the vicinity. The Fair Oaks site will provide improved signal coverage to the communities of Fair Oaks, Hidden Hills, Wooded Acres, and Greenwood Heights, where USCC continues to experience numerous customer complaints. This facility will also augment existing coverage, provide additional capacity, and reduce access failures and dropped calls on existing USCC sites in the area in question.

USCC's existing cell sites at Hazelwood, I-640, and Amherst are each located a significant distance away from the coverage gaps and thus are not able to provide adequate service. The Middlebrook and Tekoa sites are terrain blocked from the areas of proposed coverage improvements. In an attempt to address customer requests for better service for the Fair Oaks, Hidden Hills, Wooded Acres, and Greenwood Heights communities and along Oak Ridge Highway, USCC is proposing a tower at this specific location to improve the coverage in this area. The poor in-building coverage, as shown by the weak signal in our coverage map, can only be corrected by a full cell site at the proposed location. Otherwise, the alternative will be to build several cell sites to cover the same coverage gap

Collocation: The alternatives of collocating USCC's equipment and antennas on existing structures in the surrounding area were considered. In accordance with the City of Knoxville zoning ordinance, a search was performed to identify any existing registered structures within one mile of the proposed site. Two towers are located within one mile of the proposed site, but neither tower meets USCC's needs. The first structure is an American Tower (AT) owned tower located on 6305 Vance Lane that is approximately one-half mile away from USCC's existing Middlebrook cell site. The proximity to USCC's existing site would result in duplication of USCC's existing signal coverage while not alleviating existing coverage gaps due to terrain blockage, in addition to not being able to meet USCC's coverage objectives for this area. Thus, the American Tower structure is not a viable candidate for meeting USCC's coverage needs in the Fair Oaks area. The second structure is a Spectrasite tower managed by American Tower that is located on Presley Lake Road, which is West of USCC's proposed location, and at the edge of the one-mile search ring. The Spectrasite structure is too close to USCC's existing Amherst cell site and would duplicate existing USCC signal coverage, while not alleviating existing coverage gaps due to terrain blockage. Thus, the Spectrasite structure will not meet

MPCISJandiarty of the 12008 aks area.

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EXHIBIT 9

List of variances and/or waivers from zoning ordinance requirements:

The proposed site meets all set back and other requirements of Article 5.20 of the City of Knoxville Zoning Ordinance and thus no variances and/or waivers from the Zoning Ordinance requirements are necessary

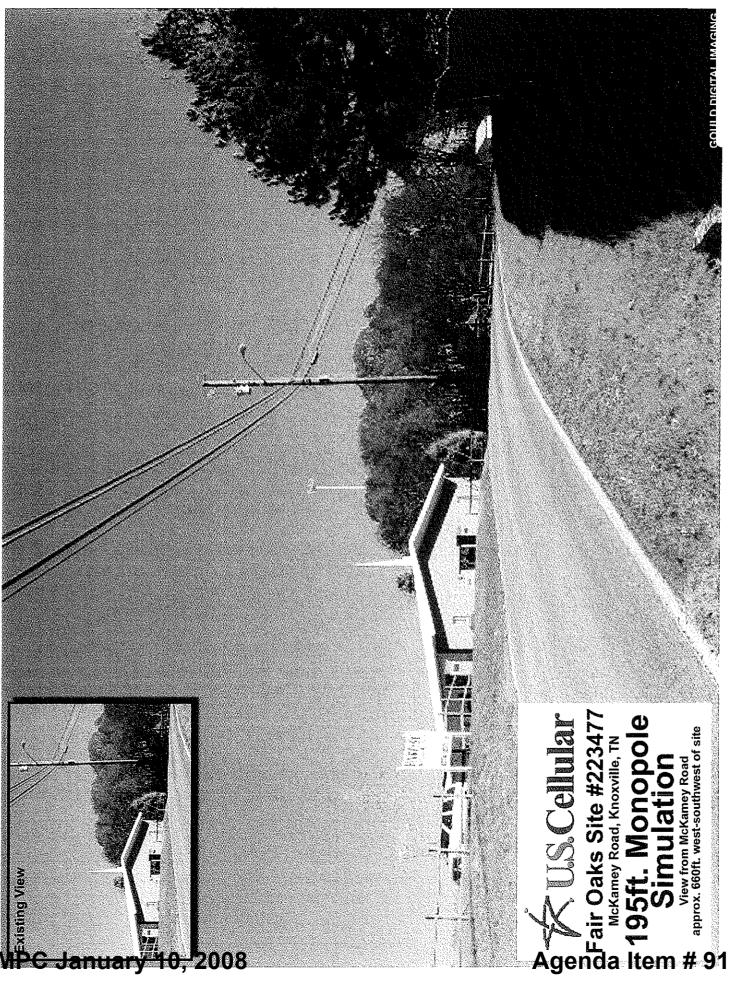
I:\US CELLULAR\FAIR OAKS ZONING MAITER\FAIR OAKS EXHIBI I 9 DOC

EXHIBIT 11

Site Plan shows that proposed site provides satisfactory protection from hazardous energies by children and passersby:

Applicant states that its site and the planned structures will more than adequately provide a barrier and act as a deterrent to any hazardous energies by children or other passersby in the area. The proposed pole and all equipment cabinets and ancillary equipment will be placed within a fenced enclosure that meets the fencing requirements of the zoning ordinance. The fence will be six (6) feet in height and will be topped with 3 strands of barbed wire (see Construction Drawings Page C1 01). The proposed pole will have no steps on at least the lower twenty (20) feet so as to prevent climbing

INUS CELLUL ARNFAIR OAKS ZONING MATTERNFAIR OAKS EXHIBIT 12 DOC



X N	EXHIBIT 7. LAND USE/WIRELESS FACILITIES MATRIX	-60	Stealth	Low	Moderate	Tall	00:++0	
		Location	Structure	Monopole Below 90'	Wonopole 90'-150'	Monopole 150'-199'	Tower	Tower
	Industrial/Business Park							
Ş	Industrial Use							
,ees	Pre-approved Government-owned Property							
Αγ	Urban Expressway Corridor							
ļļun	Rural/Heavily Wooded							
ilio	Pasture							
qqO	Central Business District					Selection (Selection)		
	Office/Commercial Corridor							
	Shopping Center							
SE	Within 500' of a residence							
/Les	Rural Residential	1000						
tive /	Non-residential Properties in a Residential Area (church, cemetery, library, etc.)	Professional Control						
sue	Multi-family Residential							
98	On Hill Below Ridgeline							
	Conservation Open Space							
SE	Scenic Highway							
Are≀	Public Park							
/ 0 0	Ridge Top/Ridge Line							
uep	Scenic Vista							
ίον	Historic District/Site							
1	Single-family Residential							
	Vacant Residential Lot							
			Encouraged		Neutral	al	Discouraged	Discouraged

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