

▶ **FILE #:** 11-G-08-UR

**AGENDA ITEM #:** 77

**AGENDA DATE:** 11/13/2008

▶ **APPLICANT:** T-MOBILE SOUTH, LLC  
**OWNER(S):** CITADEL BROADCASTING CO.

**TAX ID NUMBER:** 59 B A 001

**JURISDICTION:** City Council District 4

▶ **LOCATION:** Northwest side of Anderson Rd., east of Beverly Rd.

▶ **APPX. SIZE OF TRACT:** 39 acres

**SECTOR PLAN:** North City

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

**ACCESSIBILITY:** Access is via Anderson Rd., a local street with a 16' pavement width within a 50' right-of-way

**UTILITIES:** Water Source: Knoxville Utilities Board

Sewer Source: Knoxville Utilities Board

**WATERSHED:** Whites Creek

▶ **ZONING:** I-3 (General Industrial)

▶ **EXISTING LAND USE:** Four commercial telecommunication towers for Citadel Broadcasting Co.

▶ **PROPOSED USE:** 199' monopole telecommunications tower

**HISTORY OF ZONING:** None noted

**SURROUNDING LAND USE AND ZONING:** North: Vacant and residential condominiums / R-1 (Low Density Residential) & RP-1 (Planned Residential)

South: Mixed industrial businesses / I (Industrial)

East: Vacant land / RB (General Residential)

West: Mixed Industrial Businesses / I-3 (General Industrial)

**NEIGHBORHOOD CONTEXT:** The site is located in an area with a mix of heavy industrial businesses.

**STAFF RECOMMENDATION:**

▶ **BEING DRAFTED**

**APPROVE the request for a 199' monopole telecommunications tower in the R-1 zoning district, subject to the following 6 conditions:**

1. Meeting all applicable requirements of the Knoxville Zoning Ordinance.
2. Meeting all applicable requirements of the Knoxville Department of Engineering.
3. Since the FAA does not require any lighting for this facility, there shall be no lighting on the tower.
4. In addition to a 8' wooden privacy fence around the tower and equipment area, the perimeter of the fenced area will be landscaped with Leyland Cypress on 8' centers.
5. Installing the proposed landscaping as shown on the landscape plan within six months of the tower becoming operational.

6. 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 above conditions, this request meets all requirements for approval of a use on review in the R-1 zone.

#### **COMMENTS:**

This is a request for a new 199' monopole telecommunications tower to be located within a 2,737 square foot lease area located south of Papermill Dr., along the interstate right-of-way. The proposed tower will be located on a portion of a property that currently has a dentist office. Access to the lease area will be from a 20' easement provided by the office (12' gravel road). The subject property is zoned O-3 (Office Park) and telecommunication towers are considered as a use on review in this district.

The proposed site is immediately adjacent to a church and the interstate right-of-way, both of which are zoned R-1. Approximately 200' to the west is the nearest residence. This property, along with other properties to the north and east are zoned O-3. According to the Knoxville Zoning Ordinance, all towers shall be setback from all properties zoned residential, 110% of the height of the tower. The current proposal provides for a 19' setback between the tower and the neighboring residential property line, which is the interstate right-of-way.

According to the Knoxville-Knox County Wireless Communications Facility Plan, office corridors are considered "Opportunity Areas" for telecommunication towers. Since the proposed site is located within 500' of a residence it is also considered a "Sensitive Area". Due to the height of the proposed tower, (150') and the fact that the property is located along the interstate, the Facility Plan identifies this as an acceptable site for a telecommunication tower.

In order to reduce the visual impact on nearby residences, the proposed tower and equipment area will be surrounded by an 8' high wooden security fence, and the perimeter of the fenced area will be landscaped with Leyland Cypress on 8' centers. This new vegetation must be installed within 30 days of tower installation. 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. T-Mobile will be the principal client for the tower.

According to the applicant there are no existing or acceptable structures within this area along Papermill Dr. The proposed site is to relieve capacity of existing or nearby sites. Co-location is not an option. No other structure exists within the area needed to provide coverage (see the attached letter from Lannie Greene.).

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 150' tower is technically justified by the materials submitted by the applicant.

An agreement has been submitted stating that T-Mobile agrees to make all of its facilities available to other wireless providers (see attached letter from Lannie Greene.).

#### **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 all utilities are in place to serve this development.
2. The tower, being located adjacent to residential uses, is required to be heavily screened. The applicant will be required to install an 8' tall wooden fence and provide landscaping around the perimeter of the fence. The base of the tower and the tower enclosure will be well screened. This will reduce the impact of the proposed tower on existing residential property.

#### **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 O-3 zoning district.
2. The proposed tower 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 One Year Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. By requiring extensive screening, the use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas.

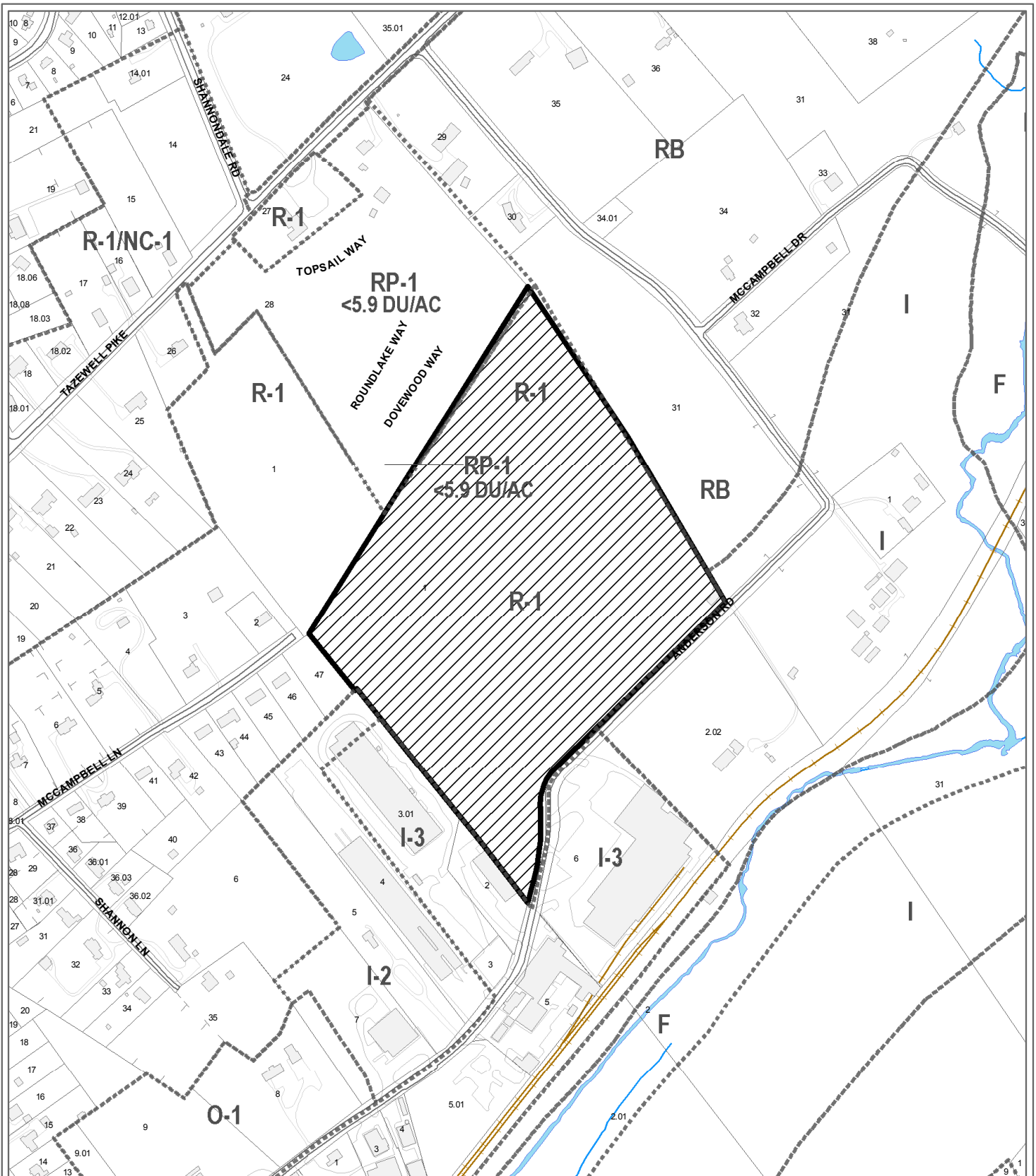
CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

1. The Northwest City Sector Plan identifies this property as being Mixed Use. The proposed development is consistent with this land designation.
2. The Wireless Communications Facility Plan identifies the proposed 199' monopole as a "tall" monopole. Under the guidelines for Tower Placement section of the Facility Plan, the proposed tower falls within the "Opportunity & Sensitive Area" categories. Under the "Opportunity Area" category, the Plan encourages moderate monopoles located along office corridors and urban expressways (see attached matrix). Under the "Sensitive Area" category, the Plan takes a neutral position on moderate monopoles located nearby residential areas (see attached matrix). As previously stated, the tower will be setback approximately 20' from the nearest residential property line, which is the interstate right-of-way and at least 200' from the nearest residence.

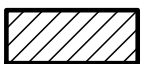
ESTIMATED TRAFFIC IMPACT: Not calculated.

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.



**11-G-08-UR  
USE ON REVIEW**

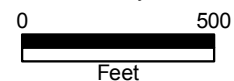


199' monopole telecommunications tower in R-1 (Low Density Residential)

Petitioner: T-Mobile South, LLC

Map No: 59

Jurisdiction: City



Original Print Date: 10/28/2008      Revised:  
Metropolitan Planning Commission \* City / County Building \* Knoxville, TN 37902

**T MOBILE**  
**USE ON REVIEW APPLICATION #11-G-08-UR**  
**CONSULTANT'S SUMMARY**  
**ANDERSON ROAD SITE REQUEST**

**Location:** Anderson Road near Beverly Drive (City of Knoxville)

**Proposed Tower Height:** 199 feet

**Address:** Anderson Road  
Knoxville, Tennessee

**District:** 4th Councilmanic Dist    **Tax Map#:** 59 Tract 31

**Use:** Telecommunications antenna support structure

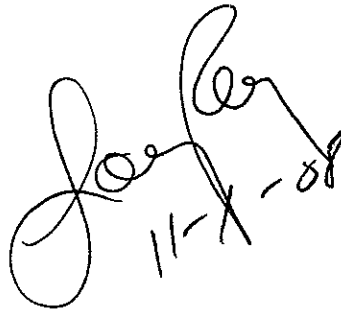
**Zoning:** R1 (residential) but is immediately adjacent to an Industrial zoned area.

**Variances and waivers:** None required

**Need:** The applicant is a communications carrier that provides communication service to area citizens. The applicant in this case is T Mobile, a licensed PCS carrier by the Federal Communications Commission. The carrier has justified a need for service in the area.

**Instant Proposal:** Construct a 199 foot (maximum) monopole type support structure. Lighting not required.

**Consultant's Recommendation:** The applicant proves adequate justification for the site using a monopole type antenna support structure.



Handwritten signature of Joe [unclear] dated 11-11-08.

**REPORT TO  
METROPOLITAN PLANNING COMMISSION**

for

Proposed Telecommunications Tower Site  
located on Anderson Road  
Knoxville, TN

**T-MOBILE SOUTH LLC**

**UOR 11-G-08-UR**

**COMPLIANCE WITH**

**THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE**

11/1/2008

The proposed site for the applicant is in a field that is used by a local AM broadcast station with existing towers (which will not support the antennas needed for the instant application. The supporting material from applicant has been reviewed for technical and Federal/State legal compliance.

**REQUESTED**

1. **Location.** The location is within the **City** of Knoxville limits in **Councilmanic Dist 4** and is located on **Tax Map 59 Tract 1**.

2. **Zoning.** R-1---Residential District (Urban)

3. **Tower height.** The requested height is less than 200 feet above ground level. Lighting will not be required on this structure.

4. **Variiances.** The set back requirements in Article 5 Section 20 of the Ordinance for the City of Knoxville are met with this structure.

5. **Site.** This application is for the construction of a new 199 foot monopole on a large open field which contains existing broadcast towers which heights are greater than that proposed by the applicant here. While it is zoned R-1 there are no residences in the vicinity and there are several industrial facilities nearby.

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.

7. **Setbacks.** The setback requirements in Article 4 Section 17E for R1 construction is a minimum 25 feet from any property line. (*Art. 4 Section*

17(E)(2-4) see also Article 5 Section 20 (B)(2). The applicant proposes to locate the antenna support pole more than 25 feet from any side. A variance is not required.

**8. Height.** The proposed structure will be up to 199 feet (maximum) overall height. It will not require any lighting as the other existing towers are taller and already have lighting to meet FAA requirements. (Art.5, Section 20 of the Ordinance.)

**9. Alternatives:** There are no alternative antenna support structures anywhere in the area. The existing towers on the property are used for AM Broadcasting and to attach anything to the towers would cause problems to the station and besides the towers will not support the antennas needed by the applicant.

**10. Facilities Plan Compliance:** The proposed site is in a residentially zoned area (R1). But there are no residences in the immediate vicinity. There are several industrial facilities located in the immediate vicinity however. The area meets the Opportunity area in the Land Use Wireless matrix in that it is located adjacent to an Industrial area and is located in a large pasture type area with other towers in the same field.

## **EVALUATION**

The following is a list of items reviewed:

Zoning Ordinance for Knox Tennessee by Metropolitan Planning Commission---Telecommunication Facilities Section (as amended thru July 1, 2006)

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.

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 on a field with existing broadcast towers so there will be no impact on the aesthetics of the area.

The location is an area zoned R1 (Residential) but is located immediately adjacent to an Industrial zoned area (I-3). It should be noted that there are nonresidential homes in the immediate area. The area would be characterized as an Opportunity Area area based upon the Land Use/Wireless Facilities Matrix.

Lighting for the structure will not be required.

The new support structure will be located near the back of the vacant parcel.

There is a need for the added signal coverage as proposed by the carrier, T Mobile based on the signal contour maps provided and verified by the applicant.

## **SUMMARY**

(1) The proposed antenna support structure is a 199 foot (maximum) monopole including antennas. There are no lighting required by the FAA.

(2) The structure design meets or exceeds FCC and EIA requirements.

(3) The area of the proposed site is zoned R1. There is are no residences in the immediate area.



(4) The proposed equipment housing facility 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.

(5) 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.

(6) 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 and it is only temporary and seasonal.

(7) There are no variances required for setbacks for the proposed site.

(8) The proposed site and structure will have no environmental impact within the federal guidelines.

(9) 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.

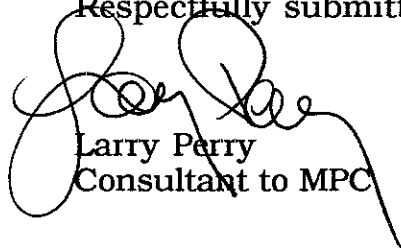
(10) The proposed frequencies to be used by the various applicants who plan to use the site should present no problem nor any interference to area reception of commercial television or radio signals.

(11) There is a need for the structure in this area to provide signal coverage for the surrounding area by the applicant.

#### **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 on Anderson Road in the large field with existing broadcast towers and should have no impact on the surrounding land uses.

Respectfully submitted,



Larry Perry  
Consultant to MPC

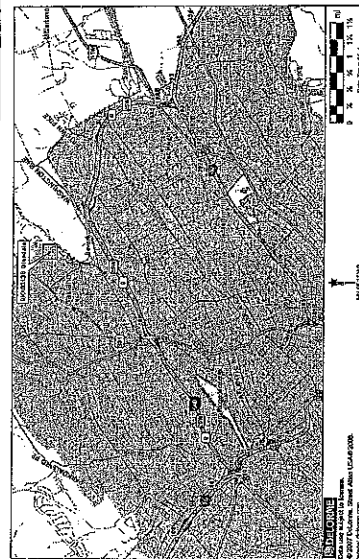
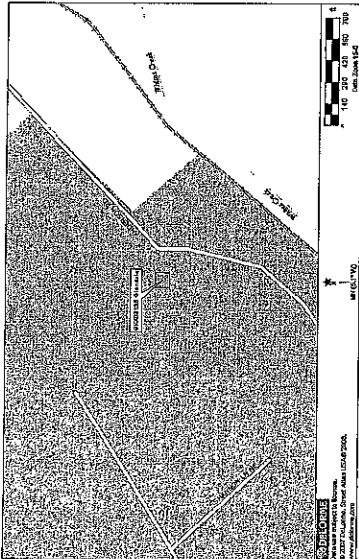
**GENERAL NOTES:**

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE KNOX COUNTY REGULATIONS.
2. CONTRACTOR SHALL NOTIFY TENNESSEE ONE CALL AT LEAST 3 BUSINESS DAYS PRIOR TO START OF CONSTRUCTION TO VERIFY LOCATION OF ALL UTILITIES SHOWN OR NOT SHOWN.
3. ALL UTILITIES WITHIN ROADWAY SHALL BE BACKFILLED WITH STONE.
4. CONTRACTOR SHALL REPAIR AT HIS EXPENSE DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, CURBS, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL UNUSABLE MATERIALS FROM THE SITE.
6. CONTRACTOR SHALL COORDINATE WITH POWER COMPANY PROVIDING UTILITIES SERVICE FOR CONSTRUCTION FACILITIES DURING CONSTRUCTION.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED ABOUT THE LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES SHOWN ON THIS DRAWING. THESE ARE BASED UPON RECORDS FROM VARIOUS UTILITY COMPANIES AND ARE NOT TO BE TAKEN AS GUARANTEED. WHERE POSSIBLE ACTUAL FIELD MEASUREMENTS, THIS INFORMATION IS NOT TO BE TAKEN EXACT OR COMPLETE.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED IMPROVEMENTS.
9. THIS PROJECT WILL NOT REQUIRE WATER OR SEWER SERVICE.
10. CONTRACTOR SHALL REMOVE ANY DIRT OR MUD FROM TIRES OF ANY CONSTRUCTION VEHICLES PRIOR TO LEAVING SITE.
11. REFER TO BUILDING/TOWER PLANS FOR PROPOSED DIMENSIONS AND OTHER SPECIFICS WHICH ARE NOT SHOWN.
12. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A PROPER TRAFFIC CONTROL PLAN FOR PUBLIC SAFETY ADJACENT TO CONSTRUCTION SITE. THE TRAFFIC CONTROL PLAN MUST BE IN ACCORDANCE WITH LATEST MUTCD EDITION.

# SITE DEVELOPMENT PLANS FOR T-MOBILE SOUTH, LLC

SITE #: 9KX0313B  
SITE NAME: GREENDALE  
SITE ADDRESS: ANDERSON STREET  
KNOXVILLE, TENNESSEE 37917

SIGNATURE AUTHORIZATIONS:	
IF ENGINEER APPROVAL:	DATE:
SIGNATURE _____	DATE: _____
CONSTRUCTION MANAGER APPROVAL:	DATE:
SIGNATURE _____	DATE: _____
SITE ACQUISITION AGENT APPROVAL:	DATE:
SIGNATURE _____	DATE: _____
LAND OWNER APPROVAL:	DATE:
SIGNATURE _____	DATE: _____
OPS APPROVAL:	DATE:
SIGNATURE _____	DATE: _____
ZONING/FERRETING APPROVAL:	DATE:
SIGNATURE _____	DATE: _____



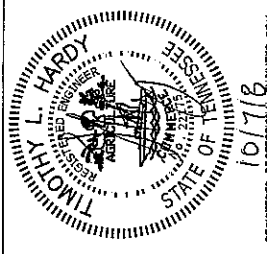
**DIRECTIONS:**  
FROM KNOXVILLE: TAKE I-40 EAST TO EXIT 365 (I-640/A-75), STAY ON I-640 TO EXIT 6 (HWY 441) AND GO APPROX. 0.3 MILES TO TAZEWELL PIKE AND TURN RIGHT. GO APPROX. 1 MILE TO BEVERLY ROAD AND TURN RIGHT. GO APPROX. 0.4 MILES TO ANDERSON ROAD AND TURN LEFT. CONTINUE TO RADIO TOWERS ON THE RIGHT.

VICINITY MAP  
(NOT TO SCALE)  
10/7/08

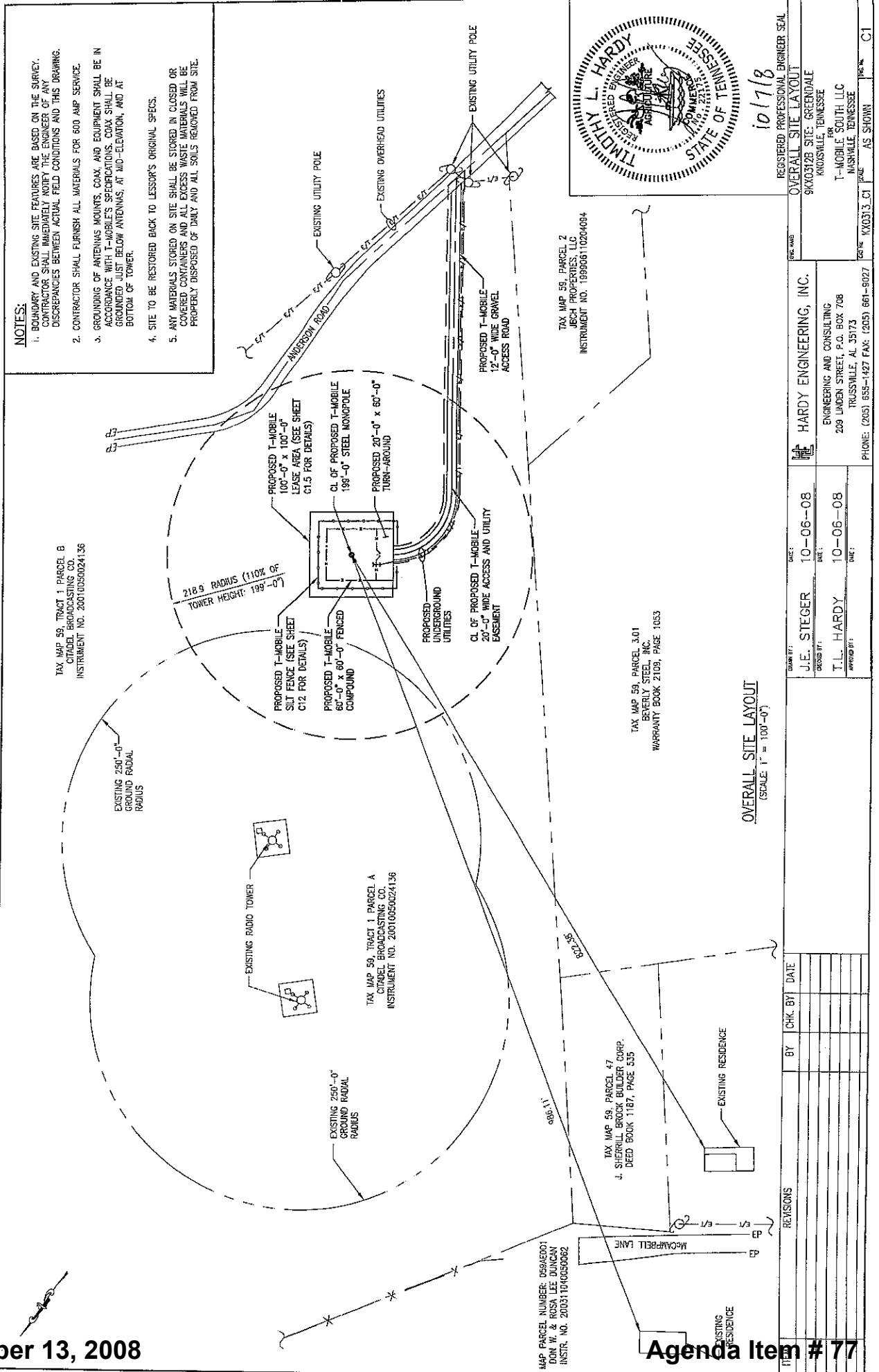
**Tennessee One Call System, Inc.**  
1-800-351-1111

**NOTICE TO CONTRACTORS**  
SHOULD ASBESTOS, ARSENIC, LEAD, OR OTHER TOXIC SUBSTANCES OR HUMAN ACTIVITIES REMAINS BE ENCOUNTERED, STOP WORK IMMEDIATELY AND CONTACT THE T-MOBILE FIELD CONSTRUCTION MANAGER FOR INSTRUCTIONS.

<p><b>TELEPHONE CO.:</b> BILLSOUTH CONTACT: CUSTOMER SERVICE PHONE: (866) 620-6000</p>	<p><b>ELECTRIC CO.:</b> KNOXVILLE UTILITIES P.O. BOX 99017 KNOXVILLE, TN 37950-9017 CONTACT: CUSTOMER SERVICE PHONE: (665) 524-2811</p>	<p><b>COORDINATES:</b> LATITUDE: 36° 02' 25.48" N LONGITUDE: -83° 53' 59.62" W GROUND ELEV: 1008 FT. AMSL</p>	<p><b>PROPERTY ZONING:</b></p>	<p><b>INDEX:</b></p> <table border="1"> <tr><td>T1</td><td>TITLE SHEET</td></tr> <tr><td>SURVEY</td><td>SURVEY</td></tr> <tr><td>G1</td><td>OVERALL SITE LAYOUT</td></tr> <tr><td>C1.5</td><td>DETAILED SITE LAYOUT</td></tr> <tr><td>C2</td><td>TOWER ELEVATION</td></tr> <tr><td>C3</td><td>ANTENNA &amp; COAX GROUNDING DETAILS</td></tr> <tr><td>C3.1</td><td>COAX GROUNDING DETAIL</td></tr> <tr><td>C3.2</td><td>GROUND RISER DIAGRAM</td></tr> <tr><td>C4</td><td>ELECTRICAL DETAILS</td></tr> <tr><td>C5</td><td>GROUNDING LAYOUT</td></tr> <tr><td>C7</td><td>ELECTRICAL LAYOUT</td></tr> <tr><td>C8</td><td>PANEL BOARD CALCULATIONS</td></tr> <tr><td>C9</td><td>EQUIPMENT &amp; GENERATOR PAD DETAILS</td></tr> <tr><td>C10</td><td>UTILITY TRENCH DETAILS</td></tr> <tr><td>C11</td><td>FENCE DETAILS</td></tr> <tr><td>C12</td><td>SOILT FENCE DETAILS AND NOTES</td></tr> </table>	T1	TITLE SHEET	SURVEY	SURVEY	G1	OVERALL SITE LAYOUT	C1.5	DETAILED SITE LAYOUT	C2	TOWER ELEVATION	C3	ANTENNA & COAX GROUNDING DETAILS	C3.1	COAX GROUNDING DETAIL	C3.2	GROUND RISER DIAGRAM	C4	ELECTRICAL DETAILS	C5	GROUNDING LAYOUT	C7	ELECTRICAL LAYOUT	C8	PANEL BOARD CALCULATIONS	C9	EQUIPMENT & GENERATOR PAD DETAILS	C10	UTILITY TRENCH DETAILS	C11	FENCE DETAILS	C12	SOILT FENCE DETAILS AND NOTES
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<p><b>BUILDING PERMIT:</b> KNOX COUNTY</p>	<p><b>LANDLORD INFO:</b> CITADEL BROADCASTING 7201 #400 WEST BLAKE NEED BLVD LAS VEGAS, NV 89128 CONTACT: TIM BERRY, LOCAL REP.</p>	<p><b>ENGINEER:</b> <b>HARDY ENGINEERING, INC.</b> 209 LINDEN STREET TRUSSVILLE, ALABAMA 35173 CONTACT: TIM HARDY PHONE: (205) 655-1427 MOBILE: (205) 222-7563</p>	<p><b>ENGINEER:</b> <b>T-Mobile</b> T-MOBILE - NASHVILLE MARKET 3800 EZZELL ROAD, SUITE 815 NASHVILLE, TENNESSEE 37211 CONTACT: REAL ESTATE DEPARTMENT</p>																																	

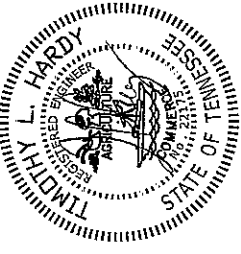






**NOTES:**

1. BOUNDARY AND EXISTING SITE FEATURES ARE BASED ON THE SURVEY. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THIS DRAWING.
2. CONTRACTOR SHALL FURNISH ALL MATERIALS FOR 600 AMP SERVICE.
3. GROUNDING OF ANTENNAS MOUNTS, COAX AND EQUIPMENT SHALL BE IN ACCORDANCE WITH T-MOBILE'S SPECIFICATIONS. COAX SHALL BE GROUNDED JUST BELOW ANTENNAS, AT MID-ELEVATION, AND AT BOTTOM OF TOWER.
4. SITE TO BE RESTORED BACK TO LESSOR'S ORIGINAL SPECS.
5. ANY MATERIALS STORED ON SITE SHALL BE STORED IN CLOSED OR COVERED CONTAINERS AND ALL EXCESS WASTE MATERIALS WILL BE PROPERLY DISPOSED OF DAILY AND ALL SOILS REMOVED FROM SITE.



REGISTERED PROFESSIONAL ENGINEER SEAL  
 10/17/08  
 OVERALL SITE LAYOUT  
 9KX0378 SITE: GREENDALE  
 KNOXVILLE, TENNESSEE  
 FOR  
 T-MOBILE SOUTH, LLC  
 NASHVILLE, TENNESSEE  
 DRAWING NO. KX0378-C1 SCALE AS SHOWN DRAWING NO. C1

TAX MAP 59, TRACT 1, PARCEL B  
 CITADEL BROADCASTING CO.  
 INSTRUMENT NO. 20010050024136

218.9 RADIUS (110% OF  
 TOWER HEIGHT: 198'-0")

PROPOSED T-MOBILE  
 100'-0" x 100'-0"  
 LEASE AREA (SEE SHEET  
 C15 FOR DETAILS)

CL OF PROPOSED T-MOBILE  
 198'-0" STEEL MONOPOLE  
 TURN-AROUND

PROPOSED T-MOBILE  
 80'-0" x 60'-0" FENCED  
 COMPOUND

PROPOSED T-MOBILE  
 SILT FENCE (SEE SHEET  
 C12 FOR DETAILS)

CL OF PROPOSED T-MOBILE  
 20'-0" WIDE ACCESS AND UTILITY  
 EASEMENT

EXISTING 250'-0"  
 GROUND RADIAL

EXISTING RADIO TOWER

EXISTING 250'-0"  
 GROUND RADIAL

TAX MAP 59, TRACT 1, PARCEL A  
 CITADEL BROADCASTING CO.  
 INSTRUMENT NO. 20010050024136

TAX MAP 59, PARCEL 2  
 JBCB PROPERTIES, LLC  
 INSTRUMENT NO. 19990610204064

TAX MAP 59, PARCEL 3.01  
 BEVERLY STEEL, INC.  
 WARRANTY BOOK 2109, PAGE 1053

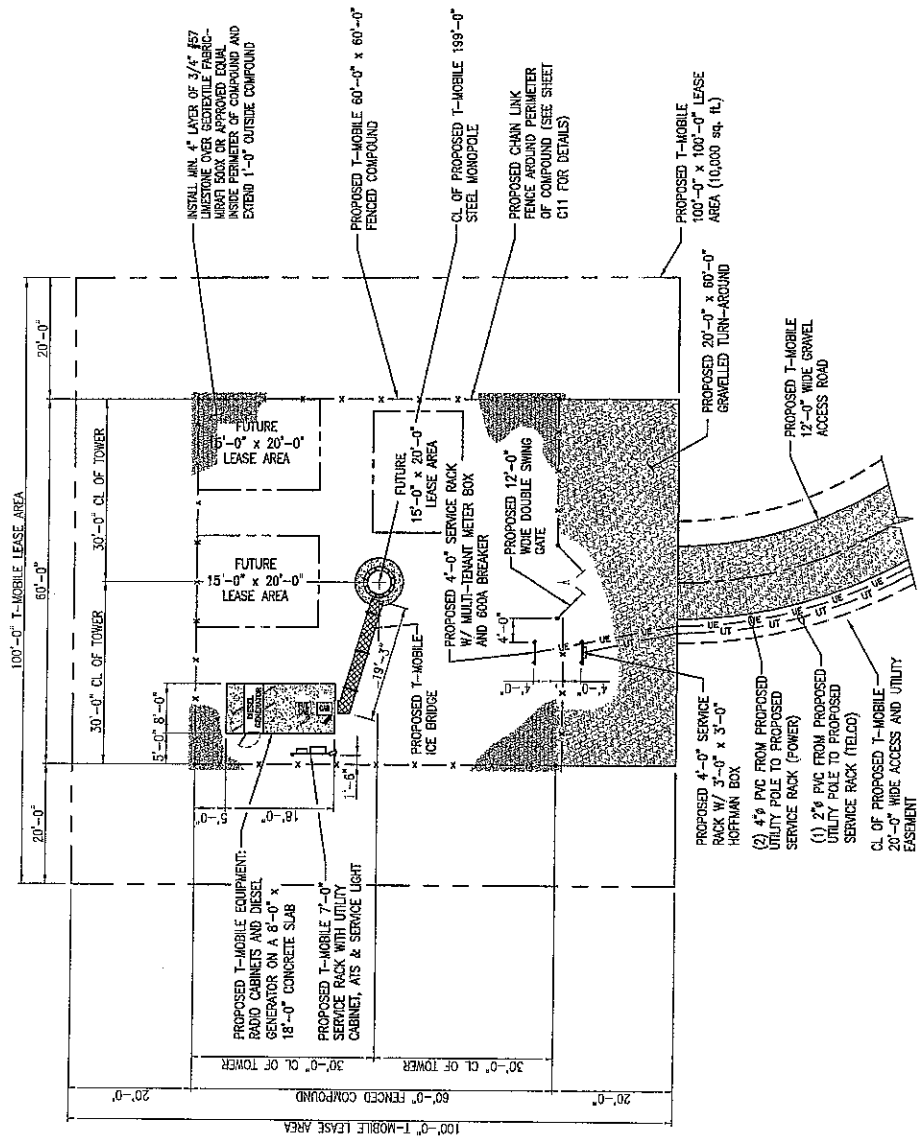
TAX MAP 59, PARCEL 4.7  
 4. SHERRILL BROOK BUILDER CORP.  
 DEED BOOK 1187, PAGE 535

**OVERALL SITE LAYOUT**  
 (SCALE: 1" = 100'-0")

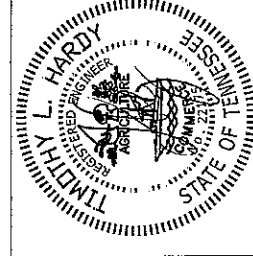
NO.	REVISIONS	BY	CHK.	DATE

DATE: 10-06-08  
 DRAWN BY: J.E. STEGER  
 DATE: 10-06-08  
 APPROVED BY: T.L. HARDY  
 HARDY ENGINEERING, INC.  
 ENGINEERING AND CONSULTING  
 209 LINDEN STREET, P.O. BOX 708  
 TRUSSVILLE, AL 35173  
 PHONE: (205) 655-1427 FAX: (205) 661-9027

MAP PARCEL NUMBER: 059AE001  
 DON W. & ROSA LEE DUNCAN  
 INSTR. NO. 2003104050062



DETAILED SITE LAYOUT  
(SCALE: 1" = 20'-0")



10/1/8  
REGISTERED PROFESSIONAL ENGINEER SEAL  
DETAILED SITE LAYOUT  
9KX0312B SITE: GREENDALE  
KNOXVILLE, TENNESSEE  
FOR  
T-MOBILE SOUTH LLC  
NASHVILLE, TENNESSEE  
DATE: AS SHOWN  
SCALE: C1.5

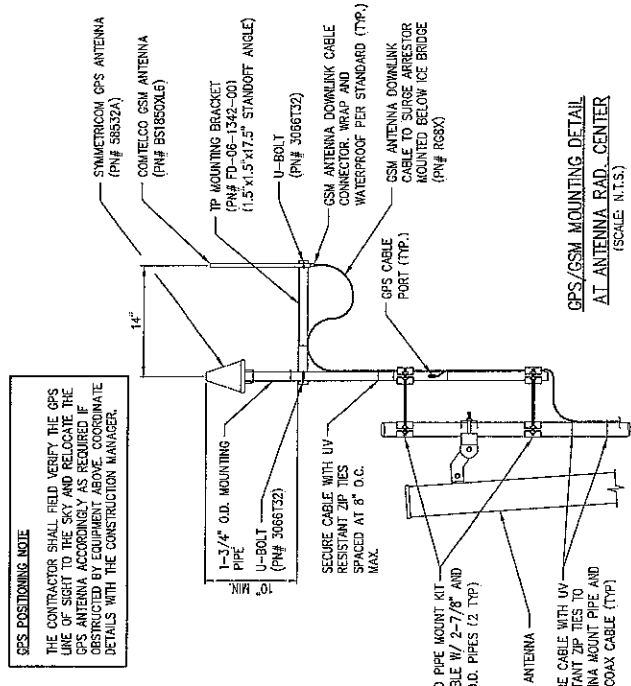
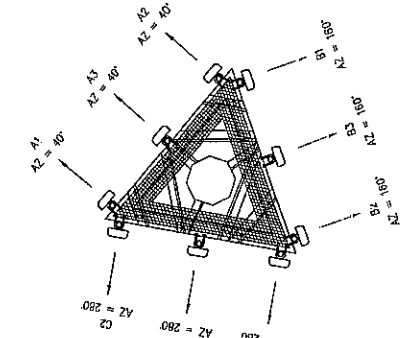
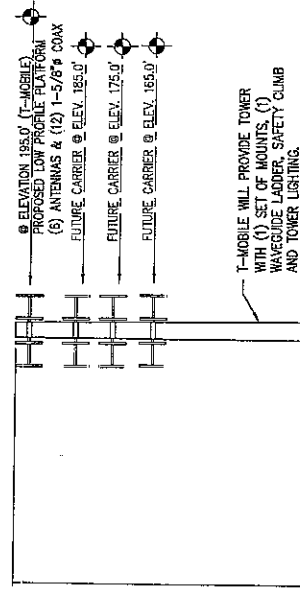
DATE: 10-06-08  
BY: J.E. STEGER  
CHECKED BY: T.L. HARDY  
DRAWN BY: T.L. HARDY  
HARDY ENGINEERING, INC.  
ENGINEERING AND CONSULTING  
209 LINDEN STREET, P.O. BOX 708  
TRUSSVILLE, AL 35173  
PHONE: (205) 555-1427 FAX: (205) 861-9027

REVISIONS	BY	CHK. BY	DATE

### ANTENNA AND COAX SCHEDULE

ANTENNA MARK	SECTOR	ANTENNA	COAX FEED LOCATION	AZIMUTH (0° = NORTH)	COAX COLOR CODE	COAX CABLE SIZE	ELECTRICAL DOWN TILT	MECHANICAL DOWN TILT	RADIATION CENTER
A1	A	TMX-6517-R2M	BOTTOM	40°	TY/RX - RED	(6) 1.5/8"	2°	0°	195'
A2	A	TMX-6517-R2M	BOTTOM	40°	TY/RX - RED-RED-RED	(6) 1.5/8"	2°	0°	195'
A3	A	TMX-6517-R2M	BOTTOM	40°	TY/RX - RED-GRAY	(6) 1.5/8"	2°	0°	195'
B1	B	TMX-6517-R2M	BOTTOM	160°	TY/RX - BLUE	(6) 1.5/8"	2°	0°	195'
B2	B	TMX-6517-R2M	BOTTOM	160°	TY/RX - BLUE-BLUE-BLUE	(6) 1.5/8"	2°	0°	195'
B3	B	TMX-6517-R2M	BOTTOM	160°	TY/RX - BLUE-GRAY	(6) 1.5/8"	2°	0°	195'
C1	C	TMX-6517-R2M	BOTTOM	280°	TY/RX - GREEN	(6) 1.5/8"	2°	0°	195'
C2	C	TMX-6517-R2M	BOTTOM	280°	TY/RX - GREEN-GREEN-GREEN	(6) 1.5/8"	2°	0°	195'
C3	C	TMX-6517-R2M	BOTTOM	280°	TY/RX - GREEN-GRAY	(6) 1.5/8"	2°	0°	195'

① FINAL ANTENNA TYPE TO BE DETERMINED BY T-MOBILE. ANTENNAS TO BE PROVIDED BY T-MOBILE AND INSTALLED BY CONTRACTOR.  
 ② ALL ANTENNAS TO BE INSTALLED WITH DOWNTILT BRACKETS.



**TIMOTHY L. HARDY**  
 REGISTERED PROFESSIONAL ENGINEER  
 STATE OF TENNESSEE  
 LICENSE NO. 101718

REGISTERED PROFESSIONAL ENGINEER SEAL  
 MONOPOLE ELEVATION  
 SKYDIB/SITE: GREENDALE  
 KNOXVILLE, TENNESSEE  
 10/17/08

REVISIONS	BY	CHK. BY	DATE

DRAWN BY: J.E. STEGER CHECKED BY: T.L. HARDY DATE: 10-06-08 SHEET: 10-06-08	HARDY ENGINEERING, INC. ENGINEERING AND CONSULTING 209 LINDEN STREET, P.O. BOX 708 TRUSSVILLE, AL 35173 PHONE: (205) 655-1427 FAX: (205) 661-0027	PROJECT: KX0313_C2 FOR: AS SHOWN SHEET NO.: C2
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PROPOSED 199'-0" MONOPOLE

11-G-08-UR

MITTRIX

REPC-EE1010

October 22, 2008

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

RE: T-Mobile Proposed 199' Monopole Tower @ Anderson Road  
(Parcel ID - 059BA001): 9KX0313/Greendale

Dear Honorable Commission Members:

On behalf of T-Mobile and the land owner, Citadel Broadcasting, I respectfully submit this application for a Use on Review of a wireless telecommunications facility. This facility is to be built for T-Mobile's wireless network. The proposed project includes a 199' monopole tower to be located within a cleared area of a RA zoned parcel and located between Tazewell Pike and Greenway Drive, on Anderson Road. This particular site will provide service to the residential areas in this area of Knox County.

T-Mobile is a building a new wireless network for the metropolitan Knoxville area. This new network is providing a new choice for wireless users in the Knoxville area and in northeast Tennessee. In 2006 cell phone usage overtook landline usage and more and more residents of Tennessee now use their cell phone as their only phone.

In addition to providing improved service to T-Mobile customers, the proposed antenna location is needed to meet Federal Communications Commission (FCC) requirements for Enhanced 911 (E911) service. The wireless E911 program is divided into two phases. Phase I requires wireless carriers, upon request from a local Public Safety Answering Point (PSAP), to report the telephone number of wireless 911 caller and the location of the antenna that received the call. Phase II of the E911 program requires wireless carriers to provide far more precise location information, within 50 to 100 meters in most cases. Provisions of E911 service in accordance with FCC requirements is a major component of the need for additional cell sites.

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2421 St. Martin Way  
Monroe, GA 30656

(678) 920 - 1262 (Office)  
(678) 609 - 1458 (Fax)

T-Mobile has already co-located or in the process of co-locating on several sites in Knox County and the City of Knoxville. In some cases T-Mobile has gone through the added expense of making significant modifications to make existing structures work. The existing towers located on the subject property are AM broadcasting towers and are not available for co-location. There were no other structures within the target area available for co-location.

The proposed facility is to be located on property that includes existing AM towers, is zoned RA, and is proposed to include a 199' monopole tower. Due to these factors The Land Use/Wireless Facilities Matrix is neutral towards the proposed facility; however, T-Mobile still has an obligation to provide reliable service to its customers. This includes providing service to surrounding residential areas and reliable E911 service.

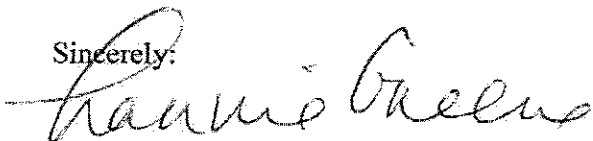
The original target area for a facility was to be at the intersection of Shannondale Road and Tazewell Pike (north of the subject property). In order to avoid this residential area the subject property was selected due to its size, current use and proximity to industrial uses along Anderson Road. Additionally, the site was located further away from the residences along McCampbell Lane. At this location T-Mobile can provide the intended coverage and meet the intent of the Knox County Ordinance.

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

- (1) View Protection – The monopole tower is proposed to be at a maximum height of 199' (including lightening rod). The proposed structure is a monopole tower which is considered the least obtrusive. The tower will be placed among existing AM structures (lattice towers and guyed) and will have limited impact upon the existing view.
- (2) Land Use Compatibility - The subject property is zoned RA and is developed with AM towers owned by Citadel Broadcasting (WNOX). The site is bounded by industrial uses to the west and south. The site meets the required 110% height of tower distance from residential structures. This facility will be unmanned and will add no substantial increase in noise, air pollution, or traffic. Furthermore the proposed facility will not burden any county services.
- (3) Design Compatibility –The facility design, which will include a monopole tower will not impact the existing uses of surrounding properties due to its proximity to existing broadcasting towers. Monopoles are often considered the least obtrusive type of structure.

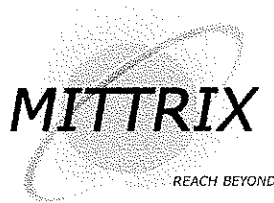
Finally, the proposed site meets the intent and law of the Knox County Ordinance and we also meet all local, state, and federal requirements in its design, construction, and operation. I appreciate your time in reviewing this application. If you require additional documentation or information please feel free to give me a call at (678) 920 - 1262.

Sincerely:



Lannie Greene  
Mittrix, Inc.  
(678) 920 - 1262





11-6-08-UR

October 7, 2008

Knoxville/Knox County Metropolitan Planning Commission  
Suite 403, City/County Building  
400 Main Street  
Knoxville, Tennessee 37902

RE: T-Mobile Intent to Allow Co-location on proposed Tower  
9KX0313

Honorable Commissioners:

Please allow this letter to confirm that T-Mobile agrees to make all of its wireless telecommunications facilities in Knox County and the City of Knoxville available to other wireless providers for co-location, provided such facilities are structurally and technically able to accommodate additional providers and provided that the wireless provider and T-Mobile can agree to all reasonable terms and conditions.

Sincerely:

A handwritten signature in cursive script that reads "Lannie Greene".

Lannie Greene  
Mittrix, Inc. for T-Mobile  
(678) 920 - 1262

Anderson St.

11-G-08-UR

\*

EXHIBIT 7.  
LAND USE/WIRELESS FACILITIES MATRIX

	Co-Location	Stealth Structure	Low Monopole Below 90'	Moderate Monopole 90'-150'	Tall Monopole 150'-199'	Lattice Tower	Guyed Tower
<b>Opportunity Areas</b>	Industrial/Business Park						
	Industrial Use						
	Pre-approved Government-owned Property						
	Urban Expressway Corridor						
	Rural/Heavily Wooded						
	Pasture						
	Central Business District						
	Office/Commercial Corridor						
Shopping Center							

<b>Sensitive Areas</b>	Within 500' of a residence						
	Rural Residential						
	Non-residential Properties in a Residential Area (church, cemetery, library, etc.)						
	Multi-family Residential						
	On Hill Below Ridgeline						

<b>Avoidance Areas</b>	Conservation Open Space						
	Scenic Highway						
	Public Park						
	Ridge Top/Ridge Line						
	Scenic Vista						
	Historic District/Site						
	Single-family Residential						
	Vacant Residential Lot						

Encouraged  Neutral  Discouraged



## **Photo Simulations**

Anderson Road  
11 – G – 08 - UR  
9KX0313 / Greendale



199ft. Balloon Test



MPC November 13, 2008

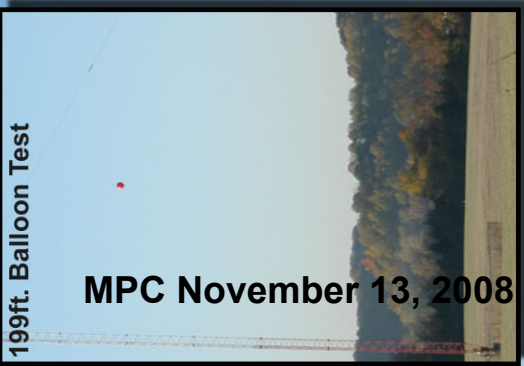
**T-Mobile.**  
**Cadrel Broadcasting**  
**ATM Towers - 9KX313**  
 Anderson St., Knoxville, TN  
 Agency # 77

**199ft. Monopole**  
**Simulation**  
 View from Anderson Street  
 approximately 620ft. east of site



199ft. Balloon Test

MPC November 13, 2008



**T-Mobile**  
**Cradel Broadcasting**  
**AM Towers - 9KX313**  
 Anderson St., Knoxville, TN  
**199ft. Monopole**  
**Simulation**  
 View from Anderson Street  
 approximately 1,900ft. north of site

Agency # 77

199ft. Balloon Test

MPC November 13, 2008



**T-Mobile**  
**Chapel Broadcasting**  
**AM Towers - 9KX313**  
 Anderson St., Knoxville, TN  
**199ft. Monopole**  
**Simulation**  
 View from Anderson Street  
 approximately 600ft. south of site



199ft. Balloon Test

MPC November 13, 2008



**T-Mobile**  
 Citadel Broadcasting  
 AM Towers - 9KX313  
 Anderson St., Knoxville, TN  
 377

**199ft. Monopole  
 Simulation**

View from McCampbell Lane  
 approximately 1,000ft. west of site