



DEPARTMENT OF COMMUNITY DEVELOPMENT SERVICES

*Planning Division*

**m e m o r a n d u m**

**TO:** Bruce K. Walden, Chief Administrative Officer

**FROM:** Elizabeth H. Tyler, AICP, Director/City Planner

**DATE:** April 27, 2006

**SUBJECT:** Plan Case No. 1986-SU-06, Request for a Special Use Permit to install an *Antenna with Tower* within 250 feet of a residential zone or land use at 1115 W. Church Street in Urbana's IN, Industrial Zoning District.

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**Introduction**

The petitioners, Cellnet Technology, Inc., propose to install a telecommunications tower at an IN, Industrial zoned property owned by Ameren / Illinois Power. The proposed location is within an existing Ameren substation and is approximately 122 feet from the nearest residentially zoned property line. Urbana Zoning Ordinance Article V, Section V-11.Q.1.c, allows *antennas with towers* in the IN Zoning District within 250 feet of a residential zoning district or land use under the provisions of Special Use Permit review.

The proposed tower would allow for the automatic reading of meters in the local Ameren/Illinois Power service area. Power companies throughout the country are moving toward automatic reading as a means of more accurate and efficient monitoring of individual energy use. One of the most important benefits of the automated meter reading (AMR) process is that it can help the utility determine metering outages during storms or other events. Traditionally the utility must rely on the customer to call using the phone system and to alert them as to who is without power, but if the phone lines are also down that will not work. With the AMR system up and running consumers do not have to be at home or in the business or have to call before the utility recognizes that they are without power. The AMR system can tell immediately who has power and who does not and so can notify the utility.

Ameren/IP is interested in employing the selected location rather than a third party co-locate because the AMR system at the tower locations also needs power to operate. Ameren IP has a vested interest in providing the backup power the AMR equipment needs if power at the tower fails. If that happened they would consider getting the AMR system running a priority and could do that on their own tower. That is not always the case when third party sites are used as the third party would consider their equipment the first priority if an outage occurred. During such an event the metering

information could only be provided to the utility in a manual manner without the benefit of the AMR system.

## Background

Cellnet will be deploying a wireless network for the purpose of remotely reading meters at customer locations for AmerenIP. Each gas and electric meter will have a device installed that will transmit meter consumption information to pole mounted devices called Concentrators. These Concentrators then communicate with a Take Out Point (TOP) that is to be mounted on the subject pole located at AmerenIP’s Goodwin Substation in Urbana. (Note: A TOP for Champaign is located in the Northwest area of the city on a third party tower.) TOPs manage data traffic, including readings, time synchronization, etc. to/from the concentrators. The TOPs operate at low power output (124 milliwatt) in the 902-928 MHz frequency range, utilizing frequency hopping technology. The petitioners state the output power represents no more power than a normal cell phone.

## Description of the Site and Surrounding Properties

The proposed location is at the Southeast corner of Church Street and Goodwin Avenue within a fenced property containing an electrical substation owned by Illinois Power. The immediate area includes commercial, institutional, and residential uses (see aerial photograph exhibit). To the North across Church Street are houses. To the South is the railway right-of-way and Odman-Hecker Co. hardware suppliers. West across Goodwin Avenue is Barber & DeAtley general contractors offices. To the Southwest is a parking lot owned by Provena Covenant Hospital. To the East is the Illinois American Water Company water treatment facility.

The following is a summary of surrounding zoning and land uses for the subject site:

### Zoning and Land Use Table\*

<i>Location</i>	<b>Zoning</b>	<b>Existing Land Use</b>	<b>Comprehensive Plan Future Land Use</b>
<b>Subject Property</b>	IN, Industrial	Electrical substation	Institutional
<b>North and Northwest</b>	R-2, Single Family Residential	Houses and vacant property	Residential
<b>South</b>	IN, Industrial, then B-3, General Business	Railway then Hardware Supply Warehouse / Offices	Commercial
<b>Southwest</b>	B-3, General Business	Hospital Parking Lot	Institutional
<b>West</b>	IN, Industrial	Contractors Warehouse / Offices	Residential
<b>East</b>	IN, Industrial	Water treatment plant	Institutional

\* (Please refer to the attached Zoning, Existing Land Use, and Future Land Use maps for further

information.)

### **Guidelines for Review of Telecommunications Facilities, Tower, and Antennas**

Section V-11 of the Urbana Zoning Ordinance is devoted entirely to the review of telecommunication facilities, towers, and antennas. Its stated purpose is to establish general guidelines for the siting of such facilities. The specific goals of the Section are to:

1. protect residential areas and land uses from potential adverse impacts of towers and antennas;
2. encourage the location of towers in non-residential areas;
3. minimize the total number of towers throughout the community;
4. strongly encourage the joint use of new and existing tower sites as a primary option rather than construction of additional single-use towers;
5. encourage users of towers and antennas to locate them, to the extent possible, in areas where the adverse impact on the community is minimal;
6. encourage users of towers and antennas to configure them in a way that minimizes the adverse visual impact of the towers and antennas through careful design, siting, landscape screening, and innovative camouflaging techniques;
7. enhance the ability of the providers of telecommunications services to provide such services to the community quickly, effectively, and efficiently;
8. consider the public health and safety with respect to communication towers; and
9. avoid potential damage to adjacent properties from tower failure through engineering and careful siting of tower structures.

In furtherance of these goals, the City of Urbana shall give due consideration to the City of Urbana's Comprehensive Plan, zoning map, existing land uses, and environmentally sensitive areas in approving sites for the location of towers and antennas.

### **Zoning Requirements for Towers and Antennas**

The Urbana Zoning Ordinance defines an *Antennae* as:

*“Any exterior apparatus designed for telephonic, radio, data, Internet, or television communications through the sending and/or receiving of electromagnetic waves, including equipment attached to a tower or building for the purpose of providing personal wireless services, including unlicensed wireless telecommunications services, wireless telecommunications services utilizing frequencies authorized by the Federal Communications Commission for “cellular,” “enhanced specialized mobile radio” and “personal communications services,” telecommunications services, and its attendant base station.”*

The Urbana Zoning Ordinance defines a *Tower* as:

*“Any structure that is designed and constructed primarily for the purpose of supporting one or more antennas, including self-supporting lattice towers, guy towers, or monopole towers. The term encompasses personal wireless service facilities, radio and television transmission towers,*

*microwave towers, common-carrier towers, cellular telephone towers or personal communications services towers, alternative tower structures, and the like.”*

## **Discussion**

Given the Urbana Zoning Ordinance definitions and criteria, the pole proposed by the petitioners is considered a “tower” for purposes of zoning review. Section V-11.Q.1.c, allows *antennas with towers* in the IN Zoning District within 250 feet of a residential zone or land use under the provisions of Special Use Permit review.

Section VII-1.B of the Urbana Zoning Ordinance states that a Special Use is one which is potentially appropriate in (and compatible with other uses in) its zoning district, but which, because of the potential major impact of its scale and nature on its district and the City of Urbana as a whole, necessitates close examination, site plan review, and individual regulation.

The question for review in this instance is whether the placement of the pole and antennas as proposed in the site plan meets the intent of the Special Use provisions of the Zoning Ordinance to not “... be unreasonably injurious or detrimental to the district in which it shall be located, or otherwise injurious to the public welfare.”

The proposed pole would be 70 feet in height (reduced from the initially proposed height of 100 feet) is made entirely of wood and will be sunk 10 feet into the ground. The paddle antennas will be bolted to the pole as will some service equipment (see photo exhibit). Ameren IP has provided technical specifications of the wooden poles they install as well as for Cellnet antenna equipment for staff review. At the request of the petitioners, and because of concerns regarding security and proprietary technology, this technical information has not been included in the packets of information transmitted to the Plan Commission or City Council. Pursuant to zoning approval, a utility permit will need to be issued for the tower by the Building Safety Division of the City of Urbana. This permit will entail review of the structural design of the pole/tower and will require that the plans display the seal of an Illinois Licensed Structural Engineer as assurance that the design is sound. The petitioners will also need to apply for an electrical permit to install the 120-volt service connection to the pole.

Also of concern is the potential visual impact of the tower and antenna as it may be viewed by pedestrians, residents, or occupants of nearby buildings. Tall telephone and electrical poles are common in urban areas and are generally visually compatible with the urban surroundings. The pole in this case is similar to other electrical poles in the immediate vicinity except it will not be connected to transmission wires or other poles. Given the nature of the electrical substation and the number of other poles in the area, the new pole/tower would not be visually inconsistent with other existing development at the site (See attached photo exhibit).

It should be noted that the IN zoning district does not have a height restriction, so that the originally proposed 100 foot height of the pole/tower would have been permissible. There is also no height restriction in the B-3 district to the south and southwest of the subject property. The proposed location is approximately 122 feet from residential zoned property across Church Street, and 75 feet

from the warehouse office building to the west across Goodwin Avenue. Each of these distances is greater than the tower's currently proposed 70-foot height.

### **Location Requirements**

At the Plan Commission hearing there were questions as to the necessity for the tower to be in the proposed location. According to AmerenIP and Cellnet, antennas must be placed in areas that can receive effectively from the target service area. The petitioners state that the subject location is within an area that will meet the technical requirements for placement of antennas to receive signals from the automated meter reading network. In addition, the petitioners state that it is necessary to locate the tower on property they own because it is critical to their long term ability to provide the automated reader service. They do not want to have to renegotiate leases on towers or building owned by other companies if at all possible.

Cellnet has provided new maps showing the "Line of Sight" LOS transmission coverage achieved by the "Take Out Point" TOP locations. The IlliniRadio tower location on west Bradley Avenue was found to have a superior network foot print (see Exhibit "J") because it is on higher ground to begin with (see Exhibit "I") and will be mounted even higher at approximately 200 feet on that tower. The proposed Urbana Goodwin Avenue substation location fills the important gaps in the IlliniRadio tower coverage (see Exhibit "K").

An alternative site to Goodwin is at the AmerenIP substation on Washington Street. Cellnet finds the alternate location less desirable for a number of reasons. 1) The location is southeast of where the heart of the meters are located in central Champaign and Urbana which presents a latency during transmission of data information; 2) There is a distinct possibility that another TOP will have to be added anyway due to the gaps in LOS coverage from that alternate location; and 3) The Washington Street location area also has nearby residential uses. The Washington Street location would also require a Special Use Permit.

### **Waivers Requested**

Section V-11.Q.4 of the Urbana Zoning Ordinance states that in addition to the usual standards for consideration of any other Special Use Permit applications, the Plan Commission and City Council shall consider the following factors regarding towers when recommending that the City Council waive or reduce the burden on the applicant of one or more of these criteria if the Plan Commission concludes that the goals of this ordinance are better served thereby:

- a) Height of the proposed tower;
- b) Proximity of the tower to residential structures and residential district boundaries;
- c) Nature of uses on adjacent and nearby properties;
- d) Surrounding topography;
- e) Surrounding tree coverage and foliage;
- f) Proposed ingress and egress; and
- g) Availability of suitable existing towers, other structures, or alternative technologies not requiring the use of towers or structures.

Under the provisions of Sec. V-11.D.5 and Sec. V-11.Q.4 the Petitioners are asking for four reductions of regulations as part of the Special Use Permit:

1) Sec. V-11.D.5.c and Table VI-1 - the requirement to locate the tower outside the 25-foot front yard setback in the IN, Industrial zoning district.

The petitioners would like to place the tower within the IN, Industrial zoning district 25-foot front yard setback on the Goodwin Avenue frontage of the property. They desire to locate the pole/tower in a spot that will still leave room for service trucks to reach the electrical equipment with cranes and bucket platforms, and also want to have as much separation as possible from the pole/tower to the electrical equipment. In addition the petitioners desire to locate the pole/tower as near to the edge of the property for access purposes. The proposed location is be 14-feet inside the existing chain link fence that encloses the entire substation at the property line. That is an 11-foot encroachment into the setback. The tower would be in its own 6-foot by 6-foot fenced enclosure which would be accessible from outside the substation fence by a gated and fenced “dog run”. The system is needed so that Cellnet employees can get to the tower to service the equipment at its base but still be restricted from access to the rest of the electrical power substation property.

At the Plan Commission meeting this waiver was withdrawn because the petitioners believed the tower could be located outside the setback. The petitioners now state they do need to request this waiver so the pole does not interfere with truck access to the electrical equipment.

2) Sec. V-11.G.2 - the requirement to provide a residential quality wood privacy fence around the tower.

3) Sec. V-11.G.2 and 4 - the requirement to screen a chain link security fence with evergreen vegetation of six feet in height.

4) Sec. V-11.Q.7.a - the requirement to provide a landscape buffer.

The tower will be located within the barbed wire topped - chain link fenced substation property that contains electrical equipment of industrial appearance. The requirement to use a residential quality wood fence or to provide plant screening of the second smaller chain link fence surrounding the tower’s base would not be beneficial in the existing visual environment. (Zoning Ordinance Sec. V-11.Q.7.b also authorizes the waiver of the buffer required in Sec. V-11.Q.7.a.)

### **Consideration of Special Use Permits**

The Plan Commission is charged with determining whether the reasons set forth in the application, and the evidence adduced during the public hearing, justify the granting of the Special Use Permit, and whether the proposed use will be in harmony with the general purpose and intent of the Zoning Ordinance, and will not be unreasonably injurious or detrimental to the district in which it shall be located, or otherwise injurious or detrimental to the public welfare.

In addition, the Plan Commission is required to make a recommendation to the City Council for or against the proposed Special Use Permit, and may also recommend such additional conditions and

requirements on the operation of the proposed use as are appropriate or necessary for the public health, safety, and welfare, and to carry out the purposes of the Zoning Ordinance, including but not limited to the following:

1. Regulate the location, extent, and intensity of such use;
2. Require adherence to an approved site plan;
3. Require landscaping and the screening of such use by means of fences, walls, or vegetation;
4. Stipulate a required minimum lot size, minimum yards, and maximum height of buildings and structures;
5. Regulate vehicular access and volume, and the design and location of parking and loading areas and structures;
6. Require conformance to health, safety, and sanitation requirements as necessary;
7. Regulate signs and outdoor lighting;
8. Any other conditions deemed necessary to affect the purposes of the Zoning Ordinance.

### **Plan Commission Review**

The Plan Commission held a public hearing to discuss the case on April 20, 2006. At the hearing public testimony revolved around the potential impacts of the pole/tower on the surrounding properties and whether it was appropriate in a location nearby a residential neighborhood.

A resident of a home to the north of the subject property expressed opposition to the tower proposal. She stated that the existing electrical substation was not a good neighbor and had discharges during storms and fires. She stated that the substation interfered with satellite television reception and was unsightly. The owners of a business property to the west expressed concerns that the tower was tall enough that it might fall onto their warehouse office building. (The request reviewed at the Plan Commission was for a 100-foot tower).

The Commission discussed the height and location of the tower and a vote was held to approve the request with the inclusion of an additional condition that:

*“The location of the pole shall be at least 100% of the height of the pole in distance from any building on surrounding properties regardless of zoning district.”*

The Commission had a tie vote of 3 ayes and 3 nays on the motion to forward the case to the Urbana City Council with a recommendation for approval. Upon a tie vote the case is forwarded to Council without a Plan Commission statement of findings or a Commission recommendation for either approval or denial of the Special Use Permit request.

Since the hearing the applicants have revised their plans from those presented at the Plan Commission meeting. First, the location of the pole has been moved to be located further to the west than originally proposed, and so within the 25-foot setback. Second, the height of the pole/tower has been reduced from 100-feet to 70-feet. Those two changes will ensure that in the event of failure, the pole could not fall on the warehouse office building to the west. In addition the reduced height makes the pole the same height as the other existing poles on Church and Goodwin. With the reduced height the pole will be no more visually intrusive on the neighborhood than the other poles.

In addition because the pole was originally a thicker stronger 100-foot pole and would be cut down to just 70-feet it will be stronger for its height than the other poles which are of a thinner type. According to the petitioners, there is no reason to be concerned about pole failure. As noted above, the City's building inspector will issue a utility permit for the pole, including the requirement for structural certification.

## **Summary of Findings**

### **Relating to Section VII-6 of the Urbana Zoning Ordinance, Special Use Permit Requirements**

According to Section VII-6 of the Urbana Zoning Ordinance, an application for any Special Use Permit shall demonstrate the following:

- 1. That the proposed use is conducive to the public convenience at that location.*

The proposed use is conducive to the public convenience because it would facilitate the efficient operation of remote meter reading of electrical and gas service for residential and business customers in the area.

- 2. That the proposed use is designed, located, and proposed to be operated so that it will not be unreasonably injurious or detrimental to the district in which it shall be located, or otherwise injurious to the public welfare.*

The proposed use should not pose a detriment to the district in which it is proposed to be located or any adjoining properties. The addition of the pole/tower and antennas would not be visually disharmonious with its urban surroundings and should not have a significant negative visual impact on the surrounding property.

- 3. That the proposed use conforms to the applicable regulations and standards of, and preserves the essential character of, the district in which it shall be located, except where such regulations and standards are modified by Section VII-7.*

The proposed use is consistent with the Industrial zoning designation of the subject site, and the character of the existing electrical substation, and the adjacent railway and commercial properties.

### **Relating to Article V-11 of the Urbana Zoning Ordinance for the review of telecommunication facilities, towers, and antennas.**

1. Antennae with towers are permitted in the IN, Industrial zoning district within 250 feet of residential zoning districts and land uses under Special Use Permit review.
2. The proposed location will avoid potential damage to adjacent properties because it is approximately 122 feet from residential zoned property and 75 feet from a warehouse office building. These distances are greater than 100% of tower's 70 foot height and exceed the minimum distance required by the Zoning Ordinance and the condition imposed by City Council.



3. The proposed use is compatible with the existing land use pattern of the general area.
4. The location of the tower within an area that is already used as an electrical substation minimizes adverse impacts on the community.
5. The use of the tower for remote meter reading will enhance the ability of the providers to provide services to the community quickly, effectively, and efficiently.
6. The proposed facility will be reviewed under applicable regulations and standards of the Urbana Building Code.
7. The requested waiver of the Sec. V-11.G.2 and 4 requirement for residential quality wood fence screening and evergreen landscape screening is reasonable given the conditions and function of the subject property and is compatible with the intent of the Zoning Ordinance to protect the health, safety, and general welfare of the community.
8. The requested waiver of Sec. V-11.D.5.c and Table VI-1 the requirement to locate the tower outside the 25-foot front yard setback in the IN, Industrial zoning district is reasonable given the conditions and function of the subject property, and is compatible with the intent of the Zoning Ordinance to protect the health, safety, and general welfare of the community.

## Options

The Urbana City Council has the following options in this case:

1. Approve the Special Use Permit request;
2. Approve of the Special Use Permit request with any additional conditions deemed appropriate or necessary for the public health, safety, and welfare, and to carry out the purposes of the Zoning Ordinance;
3. Deny the request for a Special Use Permit.

## Recommendation

At the public hearing conducted on April 20, 2006 the Urbana Plan Commission had a **tie vote of 3 ayes and 3 nays** on the motion to forward the Plan Case 1986-SU-06 to the Urbana City Council with a recommendation for approval. Due to the tie vote the case is forwarded to Council **without recommendation** either for approval or denial of the Special Use Permit request.

Based on the evidence presented in the discussion above, staff recommendation remains in favor of approving the Special Use Permit request as presented, including the approval of the requested reductions in telecommunications and zoning requirements and the request for a setback waiver as

follows:

- 1) Sec. V-11.D.5.c and Table VI-1 - the requirement to locate the tower outside the 25-foot front yard setback in the IN, Industrial zoning district.
- 2) Sec. V-11.G.2 - the requirement to provide a residential quality wood privacy fence around the tower.
- 3) Sec. V-11.G.2 and 4 - the requirement to screen a chain link security fence with evergreen vegetation of six feet in height.
- 4) Sec. V-11.Q.7.a - the requirement to provide a landscape buffer.

**And with the following conditions:**

1. The design, installation, and operation of the pole, equipment enclosure and associated antenna equipment shall be in accordance with the submitted site plans, and technical specifications.
2. The location of the pole shall be at least 100% of the height of the pole in distance from any habitable structure on surrounding property.

Attachments:

Draft Ordinance Approving a Special Use Permit  
Draft Minutes of April 20, 2006 Plan Commission Hearing

Exhibit A, Location Map Exhibit B, Zoning map Exhibit F, Special Use Application Exhibit G, Photo of example pole  Exhibit H, Photos of subject property (To be distributed at Council meeting)	Exhibit C, Existing Land Use on Aerial Photo map Exhibit D, Future Land Use map Exhibit E, Site Diagram Revised Exhibit I, Topography altitude map Exhibit J, IlliniRadio tower coverage map Exhibit K, Goodwin tower coverage map
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Prepared by:

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Paul Lindahl, Planner I

Cc:

AmerenIP  
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370 S. Main St. e-20  
Decatur, IL 62523

CellNet  
Attn: Doug Delashmutt  
1918 Innerbelt Business Centerline Drive  
Overland, MO 63114

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Cases\2006\1986-SUP-06, Ameren IP Cell pole\CC stuff\1986-su-06 CC memo v5  
waiver .doc

**ORDINANCE NO. 2006-05-055**

**AN ORDINANCE APPROVING A SPECIAL USE PERMIT**

(To allow the installation of an Antenna with Tower within 250 feet of a residential zoning district or land use at 1115 W. Church Street in Urbana's IN, Industrial Zoning District / Plan Case No. 1986-SU-06)

WHEREAS, Cellnet Technology, Inc. has submitted an application in Plan Case 1986-SU-06 to allow the installation of an antenna with tower within 250 feet of a residential zoning district or land use at 1115 W. Church Street in Urbana's IN, Industrial Zoning District; and

WHEREAS, with the exception of waivers requested all applicable development regulations are intended to be met by the petitioner; and

WHEREAS, after due publication, a public hearing was held by the Urbana Plan Commission on April 20, 2006 concerning the petition filed by the petitioner in Plan Case No. 1986-SU-06; and

WHEREAS, on April 20, 2006, the Urbana Plan Commission reached a tie vote of 3 ayes and 3 nays on a motion to forward the case to the Urbana City Council with a recommendation for approval, with the result that the case was forwarded to Council without a recommendation either for or against approval of the Special Use Permit; and

WHEREAS, in order to minimize the impact of the proposed development on surrounding properties specific conditions of approval introduced by staff and Plan Commission are hereby imposed as permitted under the requirements of the Urbana Zoning Ordinance and identified in Section 1 below; and

WHEREAS, the provisions of Urbana Zoning Ordinance Sec. V-11.D.5 and Sec. V-11.Q.4 permit the City Council to waive certain regulations as requested and identified in Section 1 below; and

WHEREAS, the approval of the Special Use Permit, with the waivers requested and conditions set forth below, is consistent with the requirements of Urbana Zoning Ordinance Section V-11: *Telecommunications Facilities, Towers and Antennas*, and Section VII-6: *Special Use Permit Procedures*, and with the general intent of those Sections of the Ordinance; and

WHEREAS, the findings endorsed by the City Council indicate that approval of the special use permit would not be detrimental to the general health, safety, morals, and general welfare of the public.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF URBANA, ILLINOIS, as follows:

Section 1. A Special Use Permit is hereby approved to allow the installation of an antenna with tower within 250 feet of a residential zone or land use at 1115 W. Church Street in Urbana's IN, Industrial Zoning District including approval of requested reductions in requirements as follows:

- 1) Sec. V-11.D.5.c, and Table VI-1 - the requirement to locate the tower outside the 25-foot front yard setback in the IN, Industrial zoning district;
- 2) Sec. V-11.G.2 - the requirement to provide a residential quality wood privacy fence around the tower;
- 3) Sec. V-11.G.2 and 4 - the requirement to screen a chain link security fence with evergreen vegetation of six feet in height; and
- 4) Sec. V-11.Q.7.a - the requirement to provide a landscape buffer.

And with the following conditions:

1. The design, installation, and operation of the pole, equipment enclosure and associated antenna equipment shall be in accordance with the submitted site plans and technical specifications.

2. The location of the pole shall be at least 100% of the height of the pole in distance from any building on surrounding properties regardless of zoning district.

LEGAL DESCRIPTION:

Commencing at the Northwest Corner of the South Half of the Northeast Quarter of the Southeast Quarter of Section 7, Township 19 North, Range 9 East of the Third Principal Meridian; thence South 89° 49.8' East, 33.00 feet; thence South 0° 11.08' East, 47.00 feet for a true point of beginning; thence South 0° 11.8' East, 69.88 feet to the intersection of the East Line of Goodwin Avenue and the Northerly Line of the New York Central Railroad Right-of-Way; thence South 70° 23.8' East, along said Right of Way, 150 feet; thence North 0° 11.8' West, 119.55 feet; thence North 89° 49.8' West, 30.00 feet; thence North 0° 11.8' West, 30.00 feet; thence North 89° 49.8' West, 80.93; thence South 0° 11.8' East, 30.00 feet; thence North 89° 49.8' West, 30.00 feet to the place of beginning, said tract containing .355 Acres more or less, all located in Champaign County, Illinois.

The above tract was granted to Illinois Power from Northern Illinois Water Corporation by Warranty Deed Dated April 18, 1963 and recorded in Book 724 at Page 130 at the Champaign County Recorder's Office.

PERMANENT PARCEL #: a part of 91-21-07-430-001

LOCATED AT: 1115 W. Church Street Avenue, Urbana, Illinois

Section 2. The City Clerk is directed to publish this Ordinance in pamphlet form by authority of the corporate authorities. This Ordinance shall be in full force and effect from and after its passage and publication in accordance with the terms of Chapter 65, Section 1-2-4 of the Illinois Compiled Statutes (65 ILCS 5/1-2-4).

PASSED by the City Council this \_\_\_\_ day of \_\_\_\_\_, 2006.

AYES:

NAYS:

ABSTAINS:

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Phyllis D. Clark, City Clerk

APPROVED by the Mayor this \_\_\_\_ day of \_\_\_\_\_, 2006.

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Laurel Lunt Prussing, Mayor

**CERTIFICATE OF PUBLICATION IN PAMPHLET FORM**

I, Phyllis D. Clark, certify that I am the duly elected and acting Municipal Clerk of the City of Urbana, Champaign County, Illinois.

I certify that on the \_\_\_\_ day of \_\_\_\_\_, 2006, the corporate authorities of the City of Urbana passed and approved Ordinance No. \_\_\_\_\_, entitled "To allow the installation of an Antenna with Tower within 250 feet of a residential zone or land use at 1115 W. Church Street in Urbana's IN, Industrial Zoning District / Plan Case No. 1986-SU-06)" which provided by its terms that it should be published in pamphlet form. The pamphlet form of Ordinance No. \_\_\_\_\_ was prepared, and a copy of such Ordinance was posted in the Urbana City Building commencing on the \_\_\_\_ day of \_\_\_\_\_, 2006, and continuing for at least ten (10) days thereafter. Copies of such Ordinance were also available for public inspection upon request at the Office of the City Clerk.

DATED at Urbana, Illinois, this \_\_\_\_ day of \_\_\_\_\_, 2006.



**MINUTES OF A REGULAR MEETING**

**URBANA PLAN COMMISSION**

**DRAFT**

**DATE:** April 20, 2006  
**TIME:** 7:30 P.M.  
**PLACE:** Urbana City Building  
400 South Vine Street  
Urbana, IL 61801

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**MEMBERS PRESENT:** Ben Grosser, Lew Hopkins, Michael Pollock, Bernadine Stake, James Ward, Don White

**MEMBERS EXCUSED:** Jane Burris, Laurie Goscha, Marilyn Upah-Bant

**STAFF PRESENT:** Elizabeth Tyler, Director of Community Development Services; Robert Myers, Planning Manager; Matt Wempe, Planner II; Paul Lindahl, Planner I; Teri Anandel, Planning Secretary

**OTHERS PRESENT:** Walter Crackel, Robert DeAtley, Doug Delashmitt, Kathy Ekstrom, Fred Heinrich, Lorean Howard, Bob Lord, Lisa Denson-Rives, Larry Wood, Carl Webber

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**Plan Case 1986-SU-06 – Request for a Special Use Permit to install an Antenna with Tower within 250 feet of a residential zone or land use at 1115 West Church Street in Urbana’s IN, Industrial Zoning District.**

Paul Lindahl, Planner I, presented this case to the Plan Commission. He explained the purpose for the special use permit request. He described the site and surrounding properties noting their zoning and land uses. He reviewed the guidelines for reviewing telecommunications facilities, tower and antennas according to Section V-11 of the Urbana Zoning Ordinance. He referred the Plan Commission to the picture of a similar pole on the last page of the packet information. He discussed the petitioner’s perspective and reviewed the waivers requested by the petitioner, noting that there would only be three waivers being requested rather than four as specified in the written staff report. Since the petitioner’s plans have changed to locate the pole within the already fenced in area, the first waiver mentioned in the written staff report was no longer needed. He went on to read the options of the Plan Commission and presented staff’s recommendation, which is as follows:

Based on the evidence presented in written staff report, and without the benefit of considering additional evidence that may be presented during the public hearing, staff recommended that the Plan Commission recommend approval of the

proposed special use permit in Plan Case No. 1986-SU-06 to the City Council as presented including the approval of the requested reductions in telecommunications requirements as follows:

- 1) *Sec. V-11.G.2 - the requirement to provide a residential quality wood privacy fence around the tower.*
- 2) *Sec. V-11.G.2 and 4 - the requirement to screen a chain link security fence with evergreen vegetation of six feet in height.*
- 3) *Sec. V-11.Q.7.a - the requirement to provide a landscape buffer.*

With the following conditions:

1. The design, installation, and operation of the pole, equipment enclosure and associated antenna equipment shall be in accordance with the submitted site plans, and technical specifications.

Mr. Grosser inquired as what else in the City of Urbana was 100 feet tall. Mr. Lindahl replied that he was not quite sure, but he believed that the antenna behind the City building was about 100 or 110 feet tall.

Mr. Grosser wondered if City staff had received any communications from the surrounding neighbors. Mr. Lindahl remarked that he had gone to the subject property and spoke with one of the owners of the industrial contracting office across the street to the west. This person expressed some concerns about the location of the tower when the tower was being proposed to be located outside of the fenced in area. Since this conversation, the petitioner has changed the location of where the pole would be located.

Ms. Stake noticed that the proposed location would be approximately 122 feet from the nearest residence, and she thought the requirement is 250 feet. Mr. Lindahl clarified that the requirement was in order to place a tower within 250 feet of a residential zone or land use, then a special use permit would be required, which is the reason for this case. Now that the petitioner is proposing to place the tower inside of the already fenced in area, the tower would be 122 feet from the property line of the nearest single-family residence to the north across Church Street. Robert Myers, Planning Manager, added that a tower must be set back a distance equal to its height from a residential zoning district. The proposed tower would be approximately 90 to 100 feet tall, and it would be set back about 122 feet from the nearest residential property line.

Mr. White questioned what the range would be for the tower. It appeared to him that there were not a lot of places where the petitioner could put up the tower, where it would be in the center of the customer base. Mr. Lindahl stated that the petitioner could answer this question.

Ms. Stake asked if the tower would transmit signals to Kansas City. Mr. Lindahl answered by saying no. The tower itself would be receiving signals from around the community. Those signals that are received would be transferred to telephone lines underground. The data on them would be transmitted to a CellNet operation center. One of CellNet's operation centers is located in Kansas City. CellNet was proposing to build another operation center in Danville, Illinois.

The concentrators around town could probably only transmit signals from within a couple of miles. For this reason, CellNet needs to place a tower near the center of the City.

Ms. Stake wondered how far out the tower in Champaign transmitted signals. Mr. Lindahl replied that he did not know. Ms. Stake commented that they did not place that tower in the middle of the City of Champaign. Mr. Lindahl responded by saying that CellNet had the opportunity to rent a space on a radio tower in Champaign. It was located on one of the highest topographic points in Champaign County. Therefore, the tower in Champaign was located in a very good spot. However, there was not any place in the City of Urbana that had the same topographical height.

Mr. Ward inquired if there was any information available relating to the structural integrity of a wooden pole in instances of stress as opposed to some alternative construction, such as a steel tower. He was particularly thinking of an incident at the corner of Mattis Avenue and Windsor Road. There was a utility wood pole similar in height. We had high winds recently, and the pole blew down. He did not feel that a 100 foot tower made out of wood would make sense. Mr. Lindahl commented that he was not a structural engineer and not qualified to review the engineering requirements of the construction of the pole. He was given a set of standard operating procedures and criteria for the types of wooden poles that Illinois Power uses. There was a great deal of information regarding distances and heights. He believed that Ameren IP would like to use a wooden pole, because it would be the least expensive opportunity for them.

He went on to say that the proposed pole would be standing alone, without cross ties and without the extra weight or stress of the power wires and cables on them like the ones on the corner of Mattis Avenue and Windsor Road. Elizabeth Tyler, Director of Community Development Services, pointed out that the Plan Commission was reviewing the zoning for this case. There were two permits that the City would need to grant for the proposed tower. The Plan Commission was reviewing the zoning, which requires a special use permit due to the distance of the proposed site to residential uses. The City would also need to grant a building permit or utility permit. During this permit process, City staff would be reviewing the structural integrity of a pole, and they would be looking for an engineer stamp certifying the safety of the structure. Mr. Ward felt it was a pertinent question given the proximity to residential uses. He stated that he would have felt a little more comfortable with Mr. Lindahl's answer if he had not included that it was the least expensive way. Mr. Lindahl apologized and stated that he spoke out of turn.

Mr. Pollock asked where the pole and tower in the picture on the last page of the staff packet was located. How high is the pole? Mr. Lindahl replied that it was provided as an example by the petitioner. He did not know where or how high the pole is.

Kathy Ekstrom, of Ameren IP, and Doug Delashmitt, of CellNet Technologies, approached the Plan Commission to answer any questions that the Plan Commission may have.

Mr. Ward asked if they had any insights in response to his previous question about the type of tower and the safety aspects of it. Mr. Delashmitt stated that originally in dealing with the aesthetics of Champaign, Urbana, Danville, Georgetown and other areas that they are reaching out to, he felt that a wood pole would look aesthetically the best due to the other poles in the

area. Another reason he choose wood is because if a steel pole would fall over and hit power lines within the electrical substation, then it would be a good conductor and would create safety hazards.

Mr. Ward inquired if Mr. Delashmitt had any information on the structural integrity of a wood pole versus a steel pole. Mr. Delashmitt replied by saying that he did have information, but that he did not have it with him at the meeting. He could provide that information through Mr. Lindahl.

Mr. Grosser wondered if CellNet had any other 100-foot towers made out of wood in the Midwest. Mr. Delashmitt stated that they have around 47,000 concentrators on poles throughout the United States. The takeout points vary from steel to high-tension tower to wood poles. He mentioned that the picture in the packet is of a pole in Colorado Springs, and it is 60-foot in height. It shows the exact same antennas that would be on the proposed wood pole.

Mr. Grosser questioned whether there would be any potential for interference with other cell phone services. Mr. Delashmitt said that it would be in the same frequency. It would be 902 to 928. The signals would be separated by the use of frequency hopping and spread spectrum technology. It would be such a low wattage, that it would almost be unnoticeable.

Mr. Grosser asked if CellNet would need to get approval from the Federal Communications Center (FCC). Mr. Delashmitt said no. It was approved through Part 15 of the FCC licensing.

Mr. Grosser wondered if this would eventually make everybody's power and gas automatically read. Ms. Ekstrom replied yes, and it would be very accurate. Mr. Delashmitt pointed out that CellNet reads 11,000,000 meters every night and provide the information to Kansas City. Ms. Ekstrom reassured the Plan Commission that Ameren IP would still do all of their limitations and verifications on the readings.

Ms. Stake asked why the petitioner had chosen the proposed site with it being so close to single-family residence. Mr. Delashmitt stated that after securing a "takeout point" at Illini Radio Tower on Bradley Avenue, he ran propagation studies using CellNet's technology as the basis. He found a footprint around the City of Urbana area that they would not be able to read. As he does surveys looking for sites to locate these towers, one of the main things he looks for is aesthetics. He is also concerned with whether it is zoned industrial and is safe for the public.

Ms. Stake questioned if Mr. Delashmitt felt that the height of the antenna would be a problem for the surrounding neighbors. Mr. Delashmitt commented that as far as aesthetics, the pole would only be about 40 feet higher than all of the poles in the area. As far as emission of radio frequency, he was not concerned because it would be equivalent to the power of a cell phone.

Ms. Stake asked for clarification regarding the four requested waivers. Mr. Pollock stated that the first waiver was no longer being requested, because the petitioner planned to locate the tower within the enclosed area rather than outside the fence.

Ms. Stake inquired what the petitioner planned to do to the area around the tower in order to make sure that it was aesthetically pleasing. Mr. Delashmitt stated that the tower would be inside the existing fence of the electrical substation, so all they planned to do is put a gate on the fence for access.

Lorean Howard, of 1114 West Church Street, stated that she also owns 1112 West Church Street. She stated that she was also there representing her neighbors that own the first three houses on her street. She described the residential area. She is in opposition to the proposed special use permit. She opposes this because it will be directly across the street from where she lives.

When the electrical substation first started out, it was not as big as it is now. It has grown over the years. The proposed tower would be located across the street from her home, and it would not be a pretty sight.

Ms. Howard pointed out that having an electrical substation and the proposed tower across the street from her home lower her properties values. She recently had an appraisal done on her home, and she had to get "no fault zone" papers from Ameren IP. She had a very difficult time getting Ameren IP to sign and return these papers to her.

She is concerned about the safety of the residents and children in the neighborhood. Animals get into the fenced in area and cause the breakers to blow. What happens if the proposed tower blows over from a strong wind?

Someone said that they went out and walked the neighborhood and talked to the residents. There are only nine houses on the block, and no one talked to her to get her opinion.

Ms. Howard mentioned that she had a satellite dish in her front yard, which she could not use. Because of the area having an electrical substation with tall poles and with the trees, she could not get a signal. This is the same reason that CellNet would need to put a pole 40 feet higher than the existing electrical poles.

Ms. Stake inquired if Ms. Howard had received a notice of the public hearing on this case. Ms. Howard said that she received a letter in the mail. Other than a letter notifying that there would be a public hearing, she did not receive any other information in the mail. As far as a sign being posted on the proposed site, she noticed that there was only one sign posted on the site along Goodwin Avenue. It was not posted where people could see the sign.

Mr. Pollock asked what a "no fault zone" is. Ms. Howard explained that the Federal Housing Authority (FHA) has a lot of requirements that a person must meet prior to getting a loan to buy a house. She had to get an appraisal on her home. Part of the process of getting her home appraised involved getting a letter from Ameren IP stating that her home was in a "no fault zone". The letter is suppose to say that Ameren IP would take the blame for anything happening to her home with relation to the electrical substation across the street.

Ms. Howard remarked that Ameren IP does not take the blame for anything. It was hard to get them to come over and let the Fire Department in the fenced in area to put out fires. None of the

residents know what the maximum amount of wattage is safe for humans to be around or how much wattage the substation carries. She wanted to know why this site was chosen.

Robert DeAtley, of Barber and DeAtley, stated that his business is located across the street from the proposed site. He expressed concern about the proposed location of the pole. Although Mr. Lindahl stated that by the petitioner moving the location of the proposed pole 15 feet to the east, it would no longer be in the fall range of hitting the business to the west, which is his business. As you can see in Exhibit E, Site Diagram, his business would still be in the fall range by about a foot or so.

He went on to say that the pole was delivered on Friday, April 14<sup>th</sup>. That seemed to be a little presumptuous. He measured the pole, and it is 110 feet.

Mr. Pollock asked if it turns out that his business is still in the fall zone, did Mr. DeAtley have an opinion of whether or not the proposed case should be approved. Mr. DeAtley responded by saying that he felt it would be a safety hazard. He understood that the site had been considered, and it was important to get a site where as few cells are needed as possible. There were a number of 30, 40 and 60-foot poles up and down Goodwin Avenue already. There was certainly the eyesore of the electrical substation itself, so he was not sure that it would be much worse than what already existed.

Mr. Grosser inquired if the location of the pole was moved so that if it fell over and did not hit his business, then would Mr. DeAtley still be opposed to the case? Mr. DeAtley replied "probably not".

Ms. Ekstrom and Mr. Delashmitt re-approached the Plan Commission. Mr. Pollock commented that one of the peculiarities was that the City Council could impose conditions on the special use permit. He asked if Ameren IP had enough room to move the proposed pole 15 feet further east of the proposed location, so that it would be out of the fall zone of the neighbor's building. Mr. Delashmitt replied that he did not see why they could not move it another 5 feet.

Ms. Stake stated that she was confused about what already is there and how difficult it would be to add the proposed pole. Mr. Delashmitt explained that there was already a large electrical substation located there. He believed that Ameren IP had an easement to the east to expand further. Obviously, as more people move into the area, Ameren IP will need to expand to be able to provide electricity to the consumer, whether it is residential or commercial.

For clarification, Ms. Stake asked if that had anything to do with the proposed tower. Ms. Ekstrom replied no. There would not be any additional electrical lines going to the proposed pole. Ms. Stake inquired if Ameren IP and CellNet had any trouble working together. Mr. Delashmitt said no.

Ms. Stake commented that she did not understand about the fires. It sounded very dangerous to her. Mr. Delashmitt explained that there were a lot of rodents, animals and such. Ameren IP did install a critter fence around the substation, because animals were getting in and chew up transformer wires. Ms. Stake asked if this electrical fence would be dangerous to the children in

the residential neighborhood. Mr. Delashmitt stated that the electrical fence was buried and that it is not dangerous.

Mr. Myers inquired about the wattage being transmitted. Mr. Delashmitt answered by saying that the wattage would be equivalent to 158 milliwatts. It would be smaller than the wattage transmitted from a cell phone, but a little more than a baby monitor. One difference would be that a baby monitor is always left on, and the tower would not transmit continually.

Ms. Howard re-approached the Plan Commission. She asked if the proposed tower could also fall on the substation. Mr. Pollock stated that could be a possibility.

Ms. Stake questioned whether or not the railroad used the tracks located to the south of the proposed site. Ms. Howard said yes. There was a train that uses the tracks twice a week.

With no further comments, Chair Pollock closed the public input portion of the public hearing.

Mr. Lindahl clarified that City staff was required to send out notifications to all of the neighbors within 250 feet of a subject property. For the proposed special use permit public hearing, he sent out 54 notices to the properties within the 250 feet area, and he received 7 notices back from the Post Office stating that there was no resident on file. Until this meeting, he had not received any communications from concerned neighbors. He pointed out that there were not any requirements for staff to walk around the neighborhood and talk to the neighbors. He happened to be out at the proposed site when he ran into Mr. DeAtley and his father. Ms. Stake mentioned that she would like for City staff to add a copy of the mailing to the packet of information.

Mr. White stated that electronic reading of meters would be nice. It appears that there are not too many places that a tower could be placed where it would be effective. Because of the range and of the topography, the proposed site is one of the few places that a tower could be located. It would be located on property owned by Ameren IP, so Ameren IP would have to worry about the proposed tower falling onto their own substation. He was in favor of the proposal.

Ms. Stake felt that the electrical substation created enough problems already. She did not feel that they should add any more problems by approving the proposed tower. A special use permit requires that the Plan Commission and the City Council look at everything including that the residential owners are taken care of. She did not feel that the residential property owners were being taken care of in this area.

Mr. Ward mentioned that he drove out to see the site. He was not concerned with the aesthetics of the subject site, because it was not particularly attractive now. The proposed pole would not make it any less attractive. He was concerned, however, about the pole itself being 100 feet in height.

He went through the criteria used to review a special use permit application. He believed that it could possibly be injurious or detrimental to the district or to the public welfare, because he had not heard otherwise. Therefore, he was not in favor of the proposed special use permit.

Ameren IP and CellNet had not done a particularly good public relations job in notifying the neighborhood according to many of the residents in the neighborhood. Although it was none of the City's business, Mr. Ward believed that it should be noted somewhere.

Ms. Stake commented that the Plan Commission had been talking about the possibility of the proposed pole falling over. She remarked that if a storm causes it to fall over, then the wind would blow it further away. She felt it would be too close to the single-family residences. So, she would like to deny the request.

Mr. Grosser stated that he had trouble sharing the concern of the proposed pole falling. Ameren IP was not concerned with the pole falling. The likelihood of the damage and the costs of those damages would be more extensive than whatever savings might be made by putting the pole in this location.

He agreed with Mr. White in that he had read articles about causes for concern about living close to power lines. This case, however, was about a wattage equivalent to less than a single cell phone, so he was not concerned about the electrical or any other kind of signal interference from this particular proposal.

Ms. Stake stated that she was not concerned about the proposed pole falling and hitting the electrical substation either. She was concerned about it falling and hitting something else in the area. Mr. Grosser commented that he agreed with her. However, he was not sure where a 100-foot pole could go anywhere in the City without having that concern. In this particular case, the Plan Commission should add a condition that the pole should not be located within 100 feet of any neighboring structure.

Mr. White moved that the Plan Commission forward Plan Case No. 1986-SU-06 to the City Council with a recommendation for approval along with the requested waivers 2, 3 and 4 as mentioned in the written staff report. Mr. Hopkins seconded the motion.

Mr. Grosser offered a friendly amendment that the proposed pole should be located equal to or greater than 100 feet away from any structure on any property belonging to someone other than Ameren IP. The amendment was accepted by the mover and seconder. Roll call was as follows:

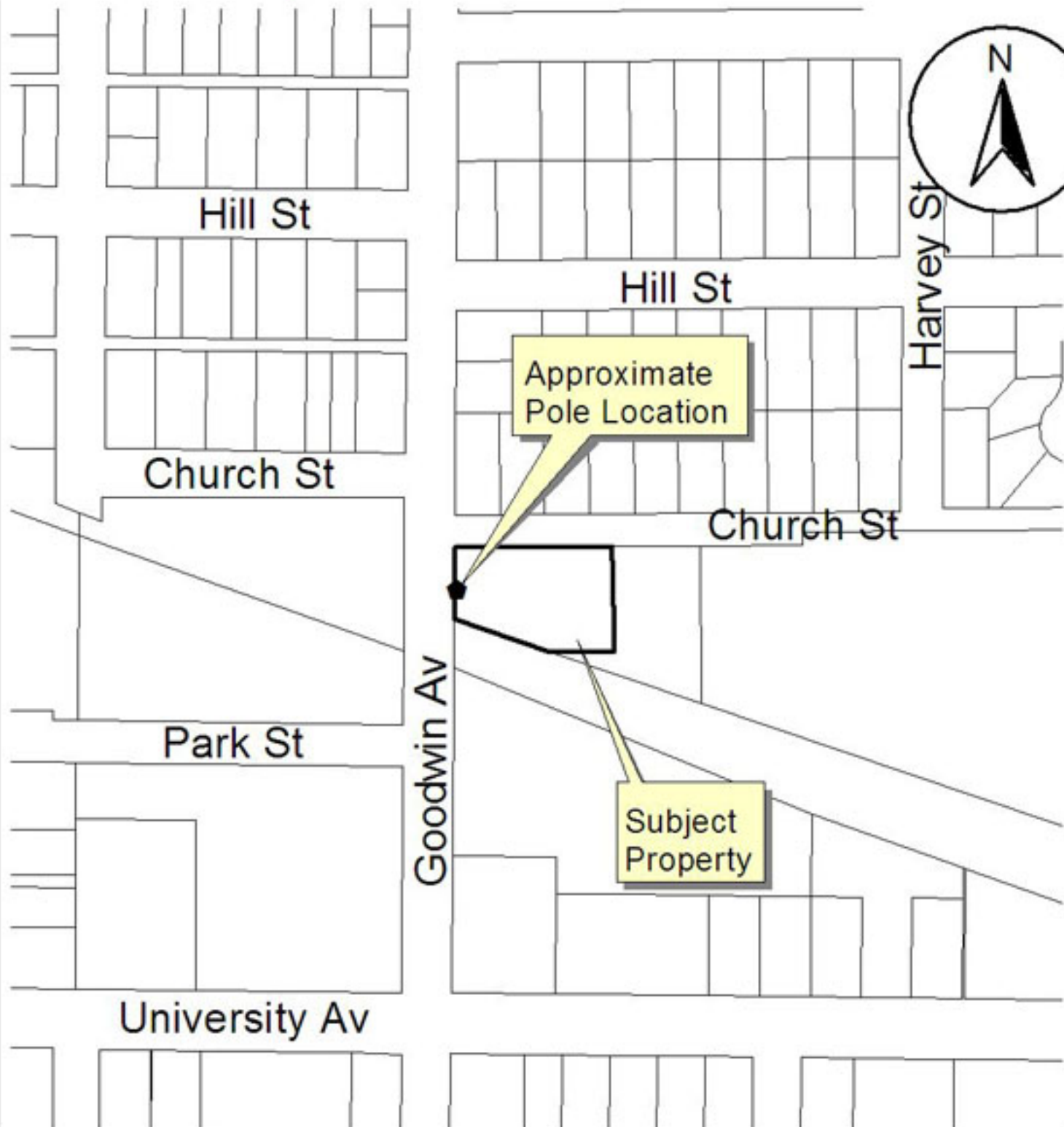
Mr. Pollock	-	No	Ms. Stake	-	No
Mr. Ward	-	No	Mr. White	-	Yes
Mr. Grosser	-	Yes	Mr. Hopkins	-	Yes

The motion failed by a vote of 3 ayes to 3 nays. Chair Pollock said therefore the Plan Commission would send this to City Council without a recommendation for approval or denial. This will go to City Council on May 1<sup>st</sup>.



# Location Map


# Exhibit "A"



Plan Case: 1986-SU-08  
Petitioner: CellNet  
Location: 1115 W. Church Street  
Zoning: I1 - Industrial  
Description:

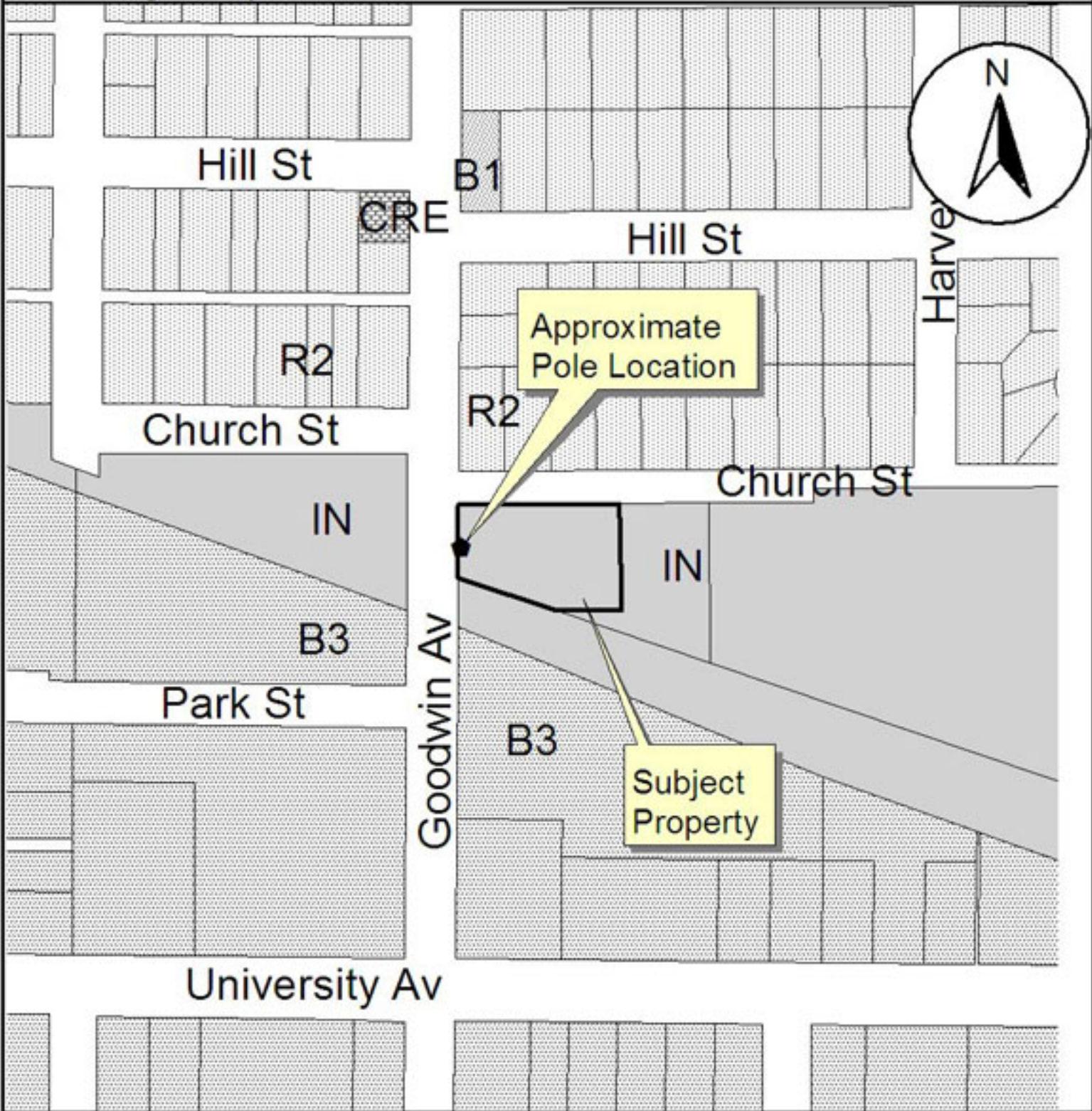
Special Use Permit to install a telecommunications pole with antennas within 250 feet of a residential zoning district.

Prepared 4/03/06 by Community Development Services - pal

 Subject Property

# Zoning Map

# Exhibit "B"



0 200 400 600 800 Feet



Plan Case: 1986-SU-08  
Petitioner: CellNet  
Location: 1115 W. Church Street  
Zoning: IN - Industrial  
Description:  
Special Use Permit to install a telecommunications pole with antennas within 250 feet of a residential zoning district.  
Prepared 4/03/06 by Community Development Services - pal

B1 - Neighborhood Business  
B3 - General Business  
CRE - Conservation-Recreation-Education  
R2 - Single Family Residential  
IN - Industrial



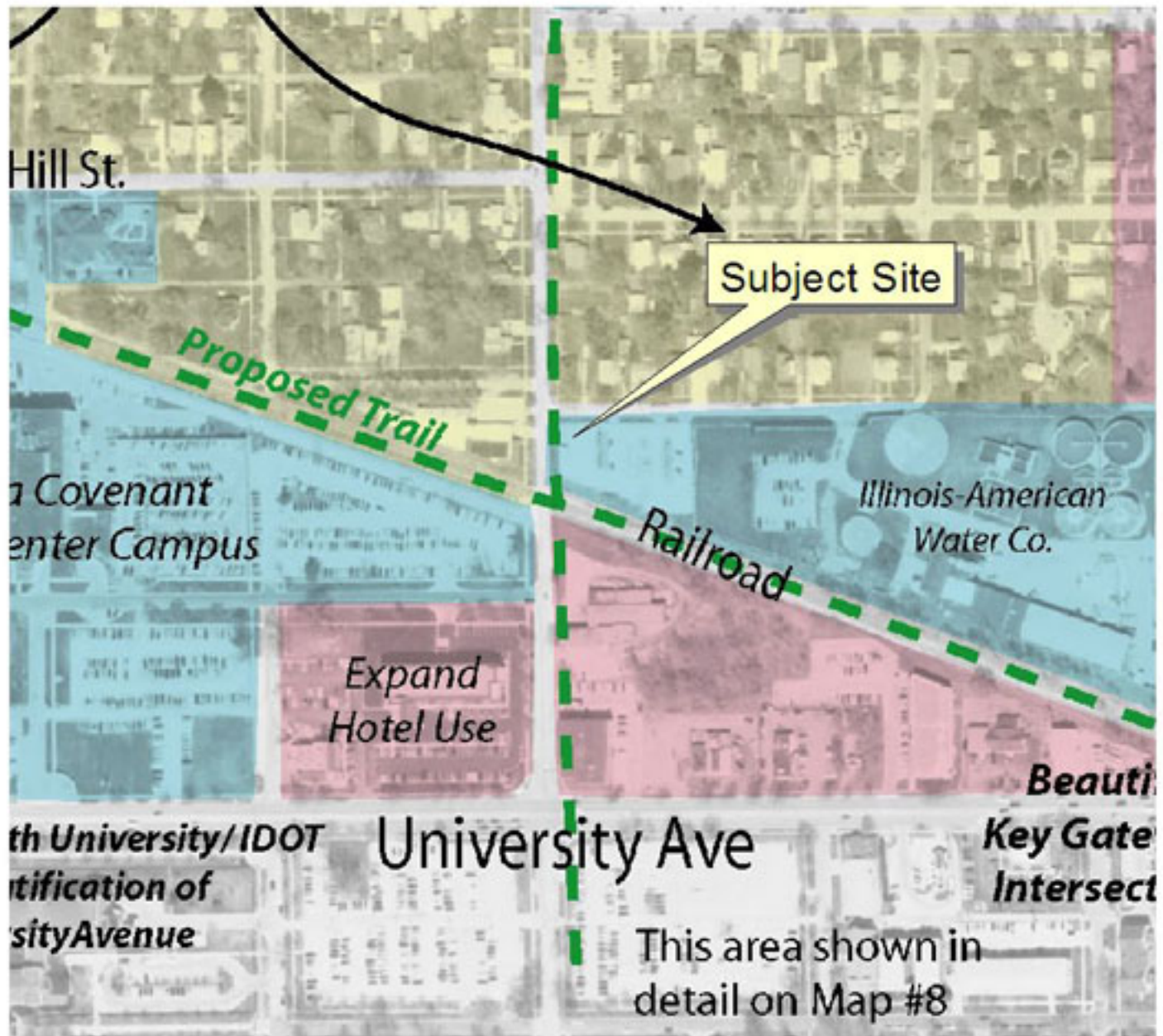
Plan Case: 1986-SU-08  
 Petitioner: CellNet  
 Location: 1115 W. Church Street  
 Zoning: IN - Industrial  
 Description:  
 Special Use Permit to install a telecommunications pole  
 with antennas within 250 feet of a residential zoning district.  
 Prepared 4/03/06 by Community Development Services - pal

SF - Single Family  
 COM - Commercial  
 PKG - Parking Lot  
 VAC - Vacant Land  
 IN - Industrial

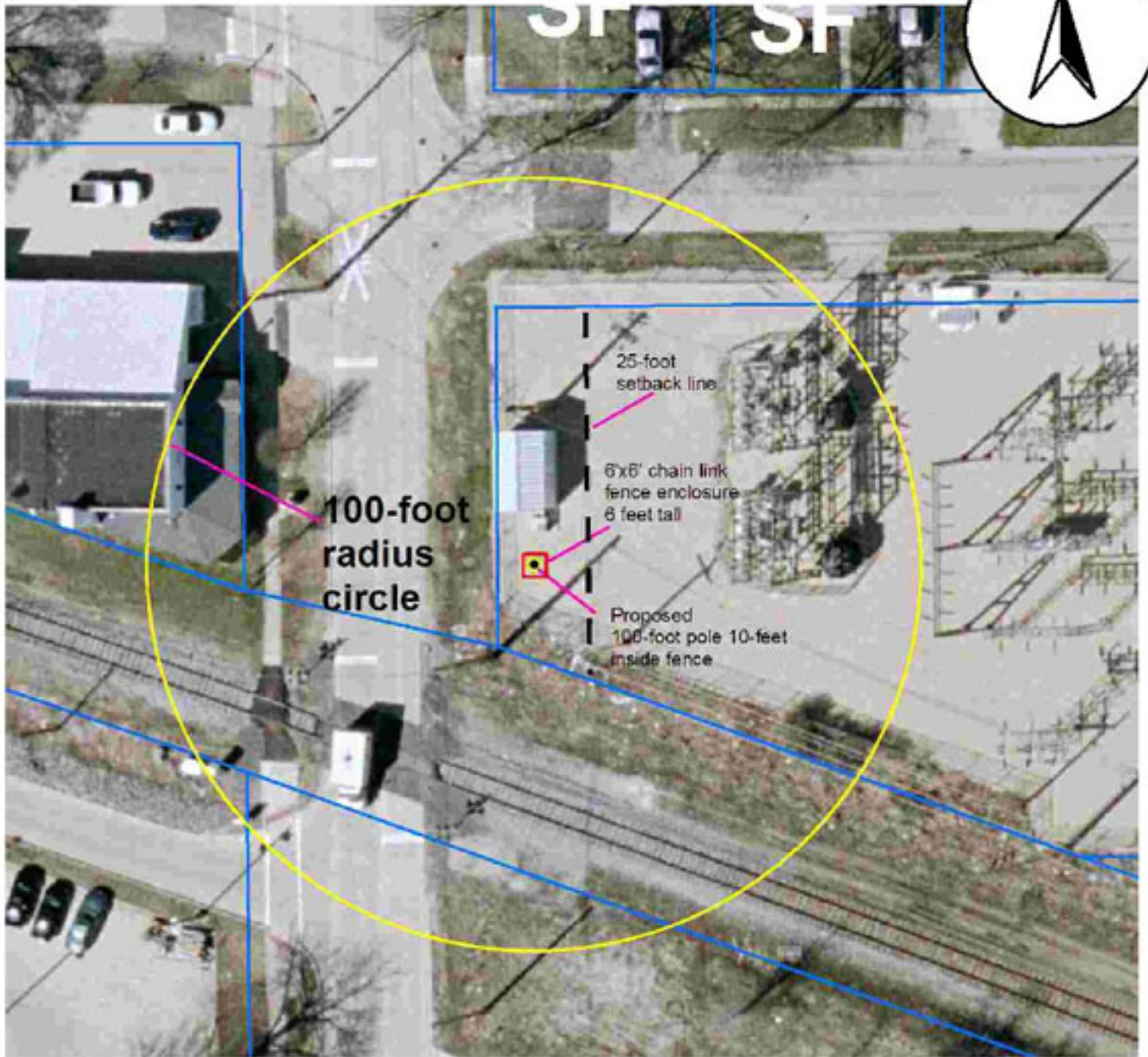
# Future Land Use Map

# Exhibit "D"

Source: Comprehensive Plan Future Land Use Map # 3, p.74



Plan Case: 1986-SU-08  
Petitioner: CellNet  
Location: 1115 W. Church Street  
Zoning: III - Industrial  
Description:  
Special Use Permit to install a telecommunications pole with antennas within 250 feet of a residential zoning district.  
Prepared 4/03/06 by Community Development Services - pal



Plan Case: 1986-SU-08  
Petitioner: CellNet  
Location: 1115 W. Church Street  
Zoning: I1 - Industrial

Description:  
Special Use Permit to install a telecommunications pole with antennas within 250 feet of a residential zoning district.

Prepared 4/03/06 by Community Development Services - pal

Topography of Surrounding Area: Highest to lowest is red, orange, yellow, green, light blue, dark blue

EXHIBIT "I"

