



## STAFF REPORT

January 5, 2009

**TO:** Northwest Consolidated Zoning Board  
**FR:** Diane Wicklund, AICP, Principal Planner  
**RE:** Application No. NW-CU-2897 (LE)

### APPLICATION INFORMATION:

**Applicant/Agent:** Johnson County Emergency Communications (a Department of Johnson County Government)

**Property Owner:** Sunflower Redevelopment, LLC (SRL)

**Requested Action:** Conditional Use Permit

**Purpose:** To allow construction and operation of a 400-foot tall, guyed public safety communication tower with associated antennas and ground equipment.

**Legal Description:** SW Quarter of Section 25, Township 13, Range 21

**Site Address/Location:** 135<sup>th</sup> St. and Evening Star Road

**Existing Land Use and Zoning:** The tower is proposed to be located on a 4.3-acre leased parcel served by a 20-foot wide access/utility easement within the RUR, Rural District.

The parent parcel, which contains the lease parcel, is a vacant tract that is currently part of the Sunflower Army Ammunition Plan - Conceptual Land Use Plan.

**Existing Improvements:** None.

**Site Size:** A 4.3-acre leased parcel within an approximate 92-acre parent parcel.

**Proposal:** This public safety communication tower, if approved, will be one of nine tower sites developed as part of the Johnson County Radio System which provides emergency communications through out the County. This tower will serve the western portion of the County. The applicant is requesting to construct a 400-foot tall, guyed tower with associated antennas and ground equipment, as follows:

- The guyed tower is designed to accommodate at least three additional cellular antennae arrays and associated ground mounted equipment pads to meet the co-location requirements of the Regulations.
- The applicant will lease a 4.3-acre (approximately 425 ft. x 425 ft. area) portion of the approximately 92-acre parent parcel. The proposed location is near the northwest corner of the 92-acre parent parcel. The proposed tower will be set back approximately 200 feet from Evening Star Road (west property line), 800 feet from 135<sup>th</sup> St. (south property line) and 250 ft. from the north property line.
- The applicant proposes to construct a 7-foot high security fence around the tower and equipment pads. Landscaping will be provided as required.
- A 15-foot driveway will be constructed within a 20-foot wide ingress/egress easement that will provide access from Evening Star Road to the site.
- The tower lighting will have a medium intensity white strobe light during the daytime and a soft red pulsing beacon at night.

*Please see the Applicant's Narrative attached.*



*Aerial View of Parent Parcel (not to scale)*

**Zoning History:**

The 92-acre parent parcel is part of the Sunflower Redevelopment property and has been zoned RUR, Rural since 2005, when the property was transferred to Sunflower Redevelopment, LLC.

**Minimum Infrastructure Requirements**

The *Johnson County Zoning and Subdivision Regulations* state that the minimum infrastructure requirements shall be guidelines for interpretation of the minimum infrastructure required for each conditional use. The following is a review of the existing infrastructure:

- Water:** Water is not a requirement for this project.
- Sewers:** Wastewater facilities are not a requirement for this project.
- Public Safety:** Police Protection is provided by the Johnson County Sheriff's Department.  
  
This area is served by Rural Fire District 3. The nearest fire station is located at 127<sup>th</sup> Street and Gardner Road approximately 7 miles to the northeast of the site.
- Roads:** Road access to the parent parcel is provided by Evening Star Road, a county-maintained gravel road. Access to the lease parcel would be provided by a 15-foot driveway within a 20-foot wide access easement across the parent tract. Both 127<sup>th</sup> and 135<sup>th</sup> are gravel roads.

Planning staff is of the opinion that infrastructure is not an issue with this application.

**STAFF ANALYSIS**

**Planning Department Staff**

The Regulations indicate that communication towers over 60 feet tall may be permitted in the RUR zoning district, provided a Conditional Use Permit (CUP) is first approved and provided that the performance standards of Article 23, Section 6 (B)(4) pertaining to communication towers are met. Specifically, the goals of the communication tower performance standards are to:

- encourage their location in non-residential areas and minimize the total number throughout the community,
- encourage locations that do not negatively impact the general health, safety and welfare of the community,
- encourage the joint use of new and existing structures,
- encourage users to locate such structures, to the extent possible, in areas where the adverse impact on the community is minimal,

- encourage users to design and configure them in a way that minimizes the adverse visual impact, and
- enhance the ability of service providers to offer such services to the community quickly, effectively, and efficiently (Article 23, Section 6 (B)(4) of the Zoning Regulations).

**Golden Analysis:**

The Regulations, the *Rural Comprehensive Plan*, and Kansas case law indicate that consideration should be given to whether issuing the CUP is in the interest of the public health, safety, morals, and general welfare of the community. The CUP application should be considered with regard to:

1. Whether the use would be consistent with the zoning and uses of nearby properties.

Nearby properties are either vacant or agricultural with a few home sites. The parent parcel is part of the Sunflower Redevelopment property, which is approximately 9,000 acres in size. The concept plan for the Sunflower property shows this site as future park land. The closest homes are about 3,000 ft. to the north and about 4,500 ft. to the west. There are about 6 homes within 1 square mile of the subject property. The county line is a mile to the west.

The surrounding area is zoned RUR, Rural district, which allows agricultural uses and homes on at least 10 acres. The property directly to the north is within the city limits of DeSoto and is a city park (67 acres). The city park is an isolated tract of land owned by the City and is not adjacent to city boundaries.

The proposed tower location is consistent with the surrounding vacant and agricultural uses because this is an undeveloped part of the County and is not close by any residential areas; therefore, meeting the non-residential goal of the Regulations.



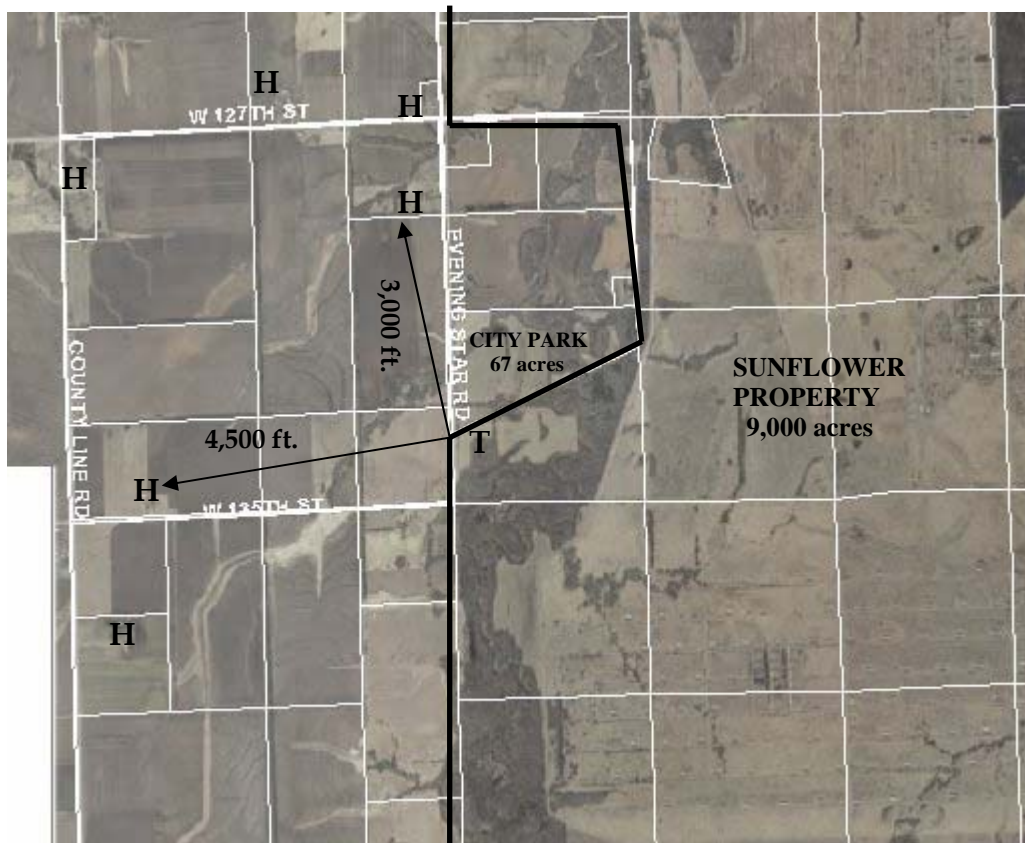
*Surrounding View of Subject Property*

2. Whether the use is compatible with the character of the neighborhood.

The character of the neighborhood is agricultural and vacant uses with a few home sites. This property was part of the approximately 9,000 acre Sunflower Army Ammunition Plant. Because of this former government use, the presence of this area of the County has remained undeveloped and non-residential. The area is isolated because the access to the ammunition plant was restricted and the large area of the site precluded construction of public roads.

For the following reasons, the tower would be compatible with the character of the area:

- The closest homes are approximately 3,000 ft. to the north and about 4,500 ft. to the west of the tower site;
- The tower, at its proposed location, is not close by any residential areas;
- This tower is in a location that minimizes the adverse impacts on the community because it is in a non-residential and isolated area; and
- Evening Star Road has limited accessibility and is not expected to be a major travel corridor.



*View of Surrounding Area*

*T=tower site H=house*

3. Suitability of the property for uses to which it has been restricted.

The 92-acre parent parcel is zoned RUR, Rural, which allows for agricultural uses and homes on 10-acres. Agricultural uses are limited because most of the 92 acres is in floodplain and heavily wooded.

The CUP for the tower use is a reasonable ancillary use of the property given its isolated location and the low development potential of nearby property.

4. Extent of detrimental effects to nearby parcels should the CUP be approved.

The setback requirements of the Zoning Regulations protect nearby parcels from the dangers of falling ice and tower failure. Because there are no homes nearby and Evening Star Road is not a heavily traveled road, there will be limited, if any, detrimental effects to nearby parcels. The subject property is a future County park site.

5. Length of time the property has remained vacant as zoned.

Prior to 2005, the property was unzoned land and owned by the federal government. Since 2005, the property has been zoned RUR, Rural District. This zoning district allows agricultural and residential (10-acre minimum) uses. The subject property was part of the Sunflower Ammunition Plant site. The Plant has been closed and the land transferred to a redevelopment company (Sunflower Redevelopment), which is in the process of site clean-up.

6. Relative gain to the public health, safety and welfare as opposed to the hardship imposed upon the applicant by denying the request.

It is the goal of the Zoning Regulations (via the performance standards for communication tower CUPs) to reduce the unnecessary proliferation of towers and to encourage placement of towers in a manner having as little adverse impact as possible. (See goals, Page 3.) Because of the proposed location in a non-residential area and because this tower will be part of the County-wide emergency services communications network, it will not negatively impact the general health, safety and welfare of the community. In fact, because of the tower's purpose to provide public safety communications, it actually benefits the general health, safety and welfare of the community and outweighs any perceived detrimental effects. In addition, this is the only tower proposed (for this purpose) for the western portion of the County.

7. Whether the use is in keeping with the Comprehensive Plan.

The *Rural Comprehensive Plan: A Plan for the Unincorporated Area of Johnson County* (Plan) indicates that this property is within the *Sunflower Army Ammunition Plant – Conceptual Land Use Plan*, which identifies the property for park land. The Plan does not specifically address telecommunication facilities. It is anticipated that the subject property will be turned over to Johnson County Parks and Recreation in approximately 2012. It is not known when this site will be developed into an active Park, but this site is part of a 2,000 acre parkland system being planned for the Sunflower Redevelopment area.

Although not shown on the Sunflower Plan, there is a possibility that 135<sup>th</sup> street may, in the future, be extended to the east. It is not anticipated that the proposed tower would conflict with such a street extension.

8. Article 23 Section 6 (C), Standards for Issuance of a CUP.

The Zoning Board shall not recommend that a Conditional Use Permit be granted unless it shall first make a finding, based upon the evidence presented to it that adequate consideration has been given to the following:

- a. *Is in harmony with the general purpose and intent of the regulations*  
Staff believes the proposal is in harmony with the general purpose and intent of the Zoning Regulations for the reasons discussed on pages 4-6 above.
- b. *Will not impair the adequate supply of light and air to adjacent property*  
The tower will not impair the adequate supply of light and air to adjacent properties.
- c. *Will not increase hazards from fire or other dangers*  
If the tower is constructed it should be operated according to FAA and FCC regulations. Falling ice and the slight risk of tower failure are potential hazards. The proposed tower location is about 200 feet from the closest edge of Evening Star Road, instead of the required 400 feet. However, the Regulations specify that the County Engineer can approve a deviation from this public street setback requirement. See the attached Public Works memo which lists reasons why the County Engineer approves the proposed tower location with a closer setback to the public street.
- d. *Will not increase traffic on streets beyond their capacity*  
It is not likely that this use will increase traffic to a noticeable degree.
- e. *Will not increase potential for flood damages to adjacent property or lead to additional public expense for flood protection, rescue or relief*  
There is floodplain located across the majority of the parent parcel from Captain Creek. However, this floodplain does not affect the proposed tower site location.

- f. *Will not otherwise unduly impair the public health, safety, comfort, morals, or general welfare of the inhabitants of the County, or otherwise create a nuisance or nuisance-like situation*

See Golden Analysis above.

- g. *Will not pollute the air, land, or water*

It is not likely that this use will pollute air, land or water.

9. Policy Guidelines for Commercial Use of County-Owned Property.

Currently, the proposed tower will be located on privately owned land. Within the next 5 years, however, it is very possible that this land will become owned by Johnson County Parks and Recreation. In that event, the County's policy, as set forth in BOCC Resolution No. 077-097, will come into play. That policy exempts, however, telecommunication towers administered by and through county government or its agencies, but does not exempt such uses by private users. Therefore, in the future, if this tower is approved, private commercial communication providers may have an interest in co-locating their equipment on this tower. In that case, approval of such co-location will be subject to the policies contained in BOCC Resolution 077-097, which require that such use should provide "a benefit to the County residents and the public welfare."

## PERFORMANCE STANDARDS

### Article 23, Section 6 (B)(4), Performance Standards for Communication Towers

Staff has reviewed this application regarding conformance with the special development and performance standards of Article 23, Section 6 (B)(4) of the *Johnson County Zoning and Subdivision Regulations* (the *Regulations*).

Except for one waiver and one deviation from the performance standards, requested by the applicant, the proposal complies with the standards set forth in Article 23, Section 6.B.4. The following is a review of the application's request:

1. Setbacks for Towers. The Regulations require all towers to have a minimum setback equal in distance to the height of the communication tower from the closest edge of all existing public streets. In this case, the setback requirement would be 400 feet. The site plan shows a setback of 200 ft. from Evening Star Road.

Due to floodplain conditions, the applicant has indicated that the tower can not be moved away from the road. According to the Regulations, the County Engineer has the authority to approve a deviation from this setback requirement. Upon review, if the CUP is granted, then the County Engineer has approved the deviation for the following reasons:

- Evening Star Road has access from both the north and the south. If a tower collapse should block the road, emergency vehicles would still have access to all properties in the area.

- A temporary road blockage would not cause any significant transportation issues due to the extremely limited number of vehicles traveling Evening Star.
- Evening Star Road has limited accessibility and is not anticipated to become a major travel corridor in the future due to topography and the location of Captain Creek and its tributaries.
- There are no dwellings in the area to influence the setback and none are proposed for the future use of this site (because it will be future parkland).

*Please see the attached Public Works Memo regarding this request.*

2. Design. The Regulations require that all towers be a monopole tower, unless a waiver is granted from the Board of County Commissioners. The proposed tower will be a guyed tower, 400 feet all, with a lattice design. Staff recommends approval of this waiver for the following reasons:

- The applicant has indicated that a tall monopole is not stable to the degree required for the antennae to function properly. The guyed tower “sway” tolerance is better than a monopole.
- The guyed tower’s mostly streamline design has less visual impact than a comparable self-support monopole tower. This is especially important at greater distances since a taller tower can be seen further away.
- Given the non-residential character of the area, allowing a guyed, lattice tower instead of a monopole, will not impact surrounding property.
- Generally, monopole towers are not constructed to the tower height requested (400 feet).
- The Radio System is designed to provide a public safety grade of radio coverage and all of the sites are interconnected via microwave, which means a microwave dish will point to another microwave dish at another tower site to connect all sites in a loop configuration. Consequently, this requires the proposed tower to be a certain height to achieve the microwave connectivity to the next tower and for the tower to be rigid and have very little twist and sway. Alternatively, a monopole tower can have substantial twist and sway, which would not meet the needs of the Radio System and the proposed tower.

Based on the reasons listed above, Staff finds that due to the circumstances surrounding the application, it would be unreasonable to require a monopole design in this situation.

**Public Works comments:** See attached memo.

**Environmental Department:** The proposal will not generate domestic waste or affect any on-site wastewater system.

**City of Desoto:** Via an email from the City Planner (dated 12-18-08), the City stated no concerns or comments on this application.

## RECOMMENDATION

Planning staff recommends **approval** of a Conditional Use Permit to allow the construction and use of a public safety communication tower, associated antenna and ground equipment, subject to the following stipulations:

1. Use of Property. Allowed uses on the property include a 400-foot tall, lattice communication tower with associated antennae and ground equipment. This includes two, 20-foot tall receive antennas, which will be located on top of the tower, for a total height of 420 feet (as shown in Exhibit A). All proposed antenna and microwave dishes shown on the Tower Elevation (in Exhibit A) drawing, shall be allowed as part of this CUP approval (will not be required to go through the Administrative Development Plan approval process), but will require building permits. Development of the site shall be constructed per the site plan and drawings (attached hereto as “Exhibit A”), except as modified by these stipulations.
2. Term. The term of this permit shall be for a period not to exceed 5 years commencing from the date of Board of County Commissioners approval of this resolution.
3. Operation. The communication tower and antennas, as well as any future equipment co-located within the lease area, shall continually operate in accordance with all FAA and FCC regulations.
4. Site Lighting. Exterior lighting shall be directed down onto the site and shall not produce bulb glare off site. Lighting shall be used only when necessary by and for persons working at the site and shall be switched off at all other times.
5. Tower Lighting. If the FAA requires aircraft lighting, it shall be a soft pulsing red light.
6. Performance Standards.

A. The communication tower, associated antennas and associated equipment structures shall be operated in accordance with Article 23, Section 6(B)(4) of the *Johnson County Zoning and Subdivision Regulations*, including, but not limited to, the following:

1. Excess capacity of the communication tower shall accommodate additional communication antennas and shall be made available equally and fairly to compatible users (and a fair portion of the cost of the excess capacity and the maintenance of the tower may be recouped by the owner). The applicant shall exercise good faith in co-locating with communication companies and sharing the permitted site.
2. In the event that the tower owner or its successors do not renew their lease option with the landowner, if any; or if there are no communication antennas utilizing the communication tower and the communication tower

itself is no longer used for communication services for a period of six (6) months, then a cessation of use shall have occurred, and the communication tower shall then be removed from the property by the tower owner or its successors, at their own cost and expense and at no cost to the County, within ninety (90) days of said cessation. If, however, communication antennas are still utilizing the communication tower, then said antennas and the communication tower need not be removed from the property for the remaining term of the conditional use permit, provided: (1) lease arrangements have been made with the landowner, if any; and (2) the communication antennas utilizing the communication tower remain functional and in operation.

3. The communication tower, associated antennas and associated ground equipment shall be continuously maintained and painted when necessary.

B. Notwithstanding anything set forth above to the contrary, if any, the provisions of Article 23, Section 6(B)(4)(f), regarding interference with public safety communications, shall not be applicable to this permit.

7. Screening and Fencing of the Communication Tower. Prior to issuance of the zoning permit, the perimeter of the base of the tower shall be screened with landscaping and fencing per Article 23, Section 6.B.4. If the fenced compound area (not the lease area) expands in size in the future, the required trees shall either be relocated or replaced to comply with this stipulation or the applicant may plant the trees around the compound farther out from the fence now, to accommodate future expansion of the fenced compound area. The trees shall be maintained in healthy condition and any dead trees shall be replaced. In addition, fencing and landscaping shall be installed around each anchor guy point.
8. Setback Easement. Easements, covenants or such other documents satisfactory to the County Legal Department, shall be provided which (i) provide that the applicant has the property necessary to meet and satisfy the setback requirement (unless otherwise authorized by a waiver), and (ii) provide that no habitable structures (dwelling) shall be constructed within the setback area. Said document(s) shall be executed and recorded prior to issuance of a building permit.
9. Private Use of the Tower. Any antennae users, other than County government or its agencies, shall comply with the provisions of BOCC Resolution No. 077-097 and shall require Board of County Commissioner approval prior to its use.
10. Compound Area. The proposed tower site shall be developed with a gravel based compound and gravel access roadway. The compound will accommodate a prefabricated 11 foot by 16 foot concrete communication shelter, emergency back-up power generator, and an above ground 1,000 gallon liquid propane tank.

## **WAIVER AND DEVIATION FROM PERFORMANCE STANDARDS**

Planning Staff and the County Engineer recommend **approval** of the following waiver and deviation from the performance standards for communication towers:

1. Setbacks for Towers. The Regulations require all towers to have a minimum setback equal in distance to the height of the communication tower from the closest edge of all existing public streets. The applicant is requesting a setback of 200 feet, instead of the 400-foot setback required by the Regulations. See pages 8-9 for the County Engineer reasons to approve this deviation.
2. Design. The Regulations require that all towers be a monopole tower, unless a waiver is granted from the Board of County Commissioners. The applicant is requesting to construct a lattice, guyed tower, instead of the monopole design required by the Regulations. See pages 8-9 for Staff reasons to approve the waiver.

## **REASONS FOR RECOMMENDATION**

1. The proposed tower location is consistent with the surrounding agricultural and vacant uses, and is in a non-residential area.
2. The tower, at its proposed location and height (400 feet), is compatible with the character of the area in its immediate vicinity.
3. Because of the proposed location, there will be no detrimental effects to nearby parcels should the request be approved.
4. The benefit to the public welfare and safety outweighs any perceived detrimental effects because of the emergency communication purpose for this tower.
5. The proposal meets Article 23 Section 6 (C), Standards for Issuance of a CUP, except for the design standards and the street setback requirements. Staff has recommended approval of the waiver and the deviation from these performance standards as set forth in the staff report (Pages 8-9).
6. The proposal meets the goals of the communication tower performance standards of Article 23, Section 6 (B)(4) as follows:
  - a. The proposal places a communication tower in a non-residential area,
  - b. The proposal does not negatively impact the general health, safety and welfare of the community, and
  - c. The proposal does locate the tower in an area where the adverse impact on the community is minimal.

Attachments: Vicinity Map  
Site Plans and Tower Elevation  
Applicant Narrative and Addendum  
Propagation Maps and Photo Simulations  
Public Works Memo  
Conceptual Land Use Plan – Sunflower Army Ammunition Plant