



City of Grand Island

Tuesday, April 11, 2006

Council Session

Item E4

Public Hearing on Request of John Luisi for NE Colorado Cellular, Inc. dba Viera Wireless for Conditional Use Permit for a 120' Telecommunications Tower Located at 305 Wilmar Avenue

Staff Contact: Craig Lewis

Council Agenda Memo

From: Craig A. Lewis, Building Department Director

Meeting: April 11, 2006

Subject: Request of John Luisi of NE Colorado Cellular, Inc. d.b.a. Viaero Wireless for approval of a Conditional Use Permit to construct a telecommunication tower at 305 Wilmar Ave. Grand Island, NE.

Item #'s: E-4 & H-2

Presenter(s): Craig Lewis

Background

This is a request to allow for the construction of a 120 foot telecommunication tower at 305 Wilmar Ave. to facilitate the cellular service area and a proposed new retail location. The Grand Island Zoning Code requires that all telecommunication towers receive the approval of City Council in the form of a conditional use permit prior to construction.

The intent of the tower and telecommunication facilities and antenna regulations is to protect residential areas and land uses from the potential adverse impact of the installation of towers and antennas through careful design, siting, and camouflaging, to promote and encourage shared use/collocation of towers, and to ensure that towers and antennas are compatible with the surrounding land uses.

Discussion

The City code specifies eight items to be submitted with the application for a tower development permit, all of those items have not been submitted. The remaining items are; 1). the engineering of the foundation design, 2). a color photo simulation of the proposed tower providing a realistic representation of the tower as it would appear from the nearest residential zoned property and the nearest roadway, street or highway, and 3). A building permit application.

Additional information attesting to a diligent effort to collocate has been submitted from the applicant but no supporting documentation from the other tower owners has been submitted stating the reasons for a denial of collocation.

There are several towers in the immediate area. A review of the neighboring properties especially the residential area to the east of the proposed location would indicate that an additional tower at this site would not be in the best interest of the area. The lattice tower proposed does not appear to be aesthetically compatible with the surrounding properties nor in the best interest of the area

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Approve the conditional use permit.
2. Disapprove or /Deny the conditional use permit.
3. Modify the conditional use to meet the wishes of the Council
4. Table the issue

Recommendation

City Administration recommends that the Council deny the request for a conditional use permit to construct this telecommunication tower.

Sample Motion

A motion to deny the request for a conditional use permit to construct a telecommunication tower at 305 Wilmar Ave. Possible findings to support this position might include; that the application was not submitted as prescribed in the City code and that the proposal would not protect residential areas and land uses from the potential adverse impact of this telecommunication tower.

Conditional Use Permit Application

pc: Building, Legal, Utilities
Planning, Public Works

1. The specific use/construction requested is: TO BUILD 120 FT. SELF-SUPPORT TELECOMMUNICATIONS TOWER.
2. The owner(s) of the described property is/are: NE COLORADO CELLULAR, INC. d.b.a. VIAERO WIRELESS
3. The legal description of the property is: LOT ONE (1), MARTIN'S THIRD SUB-DIVISION, IN THE CITY OF GRAND ISLAND, NE
4. The address of the property is: 305 WILMAR AVE, GRAND ISLAND, NE
5. The zoning classification of the property is: B-2
6. Existing improvements on the property is: VACANT LAND
7. The duration of the proposed use is: PERMANENT
8. Plans for construction of permanent facility is: N/A
9. The character of the immediate neighborhood is: GENERAL BUSINESS / COMMERCIAL / SHOPPING CENTER
10. There is hereby **attached** a list of the names and addresses of all property owners within 200' of the property upon which the Conditional Use Permit is requested.
11. Explanation of request: VIAERO WIRELESS WANTS TO CONSTRUCT A 120 FT. SELF-SUPPORT TELECOMMUNICATIONS TOWER ON LAND WE ARE PURCHASING. WE ALSO INTEND TO CONSTRUCT A RETAIL STORE & OFFICE ON THE SITE. (APPROX - 3000 SQ FT) - *SEE SITE PLAN ATTACHED

I/We do hereby certify that the above statements are true and correct and this application is signed as an acknowledgement of that fact.

3/28/06

Date

CELL 970-768-0061

HOME OFF- 970-542-3624

Phone Number

John Ricci - Site Acquisition Mgr.
NE COLORADO CELLULAR, INC d.b.a.
VIAERO WIRELESS

(HOME OFFICE) Owners(s)

1724 WEST PLATTE AVE

Address

FT. MORGAN

City

CO

State

80701

Zip

* GRAND ISLAND OFFICE:
1512 So LOCUST ST.
GRAND ISLAND, NE 68801

Please Note: Delays May Occur if Application is Incomplete or Inaccurate.



Mr. Craig Lewis
Planning Director
City of Grand Island, NE

March 23, 2006

Dear Mr. Lewis

With regard to Viaero Wireless's Application to Develop a Tower at the SE Quarter of Section 13, T11N, R10W we respectfully submit our response to Section 36-171(D) which states:

"An affidavit attesting to the fact that the applicant has made diligent but unsuccessful efforts to obtain permission to install or collocate the applicant's telecommunications facilities on a tower or useable antenna support structure within a one (1) mile radius of the proposed tower location or written technical evidence from an engineer that the applicant's telecommunications facilities cannot be installed or collocated on another tower or useable antenna support structure within a one (1) mile radius of the proposed tower location.."

Using the Federal Communications Commission's Antenna Structure Registration database, we have conducted a search for all registered tower structures which are required to be registered according to the Code of Federal Regulations (CFR) 47 Part 17.7 and 14 CFR 77.13 within a 1 mi radius of the proposed site. This search resulted in five structures which fall within the 1 mile criteria.

An engineering analysis was then performed to determine if any of the sites would meet Viaero's criteria for network connectivity, reliability and coverage. Within the scope of this document we will use the following definitions:

Network Connectivity:

The physical and electrical processes necessary to connect a cellular base station to its associated Mobile Switching Center (MSC). This is done via Viaero owned microwave radios utilizing licensed and unlicensed spectrum in the 6 and 11 GHz bands as appropriate and may consist of multiple microwave links. Viaero owns, operates and maintains its entire microwave radio network to provide better reliability and capacity for our subscribers.

Network Reliability:

Network Reliability is the percentage of time that the physical and electrical processes connecting the base station to its associated Mobile Switching Center remain in service.

While there are many factors contributing to Network Reliability, for the purposes of this application it will essentially be the microwave path reliability from the cell site to the MSC. Viaero's design criteria on a per link basis is 99.9999% or 32 seconds of outage per year. This number is highly dependant on site location, tower construction, interference, antenna size and obstructions along the path.

Coverage:

Coverage is the area in which a mobile station can originate and receive calls reliably. It is affected by the base stations location, antenna type, height, transmit power, receiver sensitivity, terrain, obstructions, interference and the ability to hand off or hand in other base stations traffic as needed to maintain high call quality. Coverage is typically measured in terms of the area in which a mobile will receive a specified signal strength from the base station. Viaero's criteria for an urban environment is that the mobile will receive no less than a -80 dBm signal under worst case conditions. These conditions include additional losses due to buildings, vegetation, weather and variations in mobile receive sensitivity and mobile antenna efficiency.

Using these criteria, we would like to present an analysis of the five possible co location sites within a 1 mile radius of our proposed location:

Site 1:

Nebraska State Patrol

Latitude: 40-55-00.0 N
Longitude: 98-22-37.0 W
Height: 93.5 Meters

Due to the fact that the Nebraska State Patrol does not allow co-location on any of its structures by commercial (non-governmental) entities, this site was removed from consideration.

Site 2:

Pinpoint Communications

Latitude: 40-54-50.0 N
Longitude: 98-23-53.0 W
Height: 68.0 Meters

This site is approximately 1.05 miles Southwest of the proposed site. It is a 68 Meter high structure. Test data in the desired coverage area of inside Conestoga Mall yield a 30 dB variation in additional losses beyond that predicted from an unobstructed Free Space condition. If the site were to be located here it would not meet our criteria for signal strength received by the mobile and it would not provide the connectivity to the proposed Viaero retail store which would be collocated with the site. Additionally, this structure will not support our anticipated loading requirements. Distance from this site to the target coverage area as well as its lack of an



unobstructed microwave path back to Viaero's switching center make it unacceptable as a co location candidate.

Site 3:

Aliant Cellular

Latitude: 40-55-59.0 N
Longitude: 98-23-11.0 W
Height: 59.1 Meters

This site is approximately .95 miles Northwest of the proposed site. It is a 59.1 Meter high structure. Test data in the desired coverage area of inside Conestoga Mall yield a 30 dB (factor of 1000) variations in additional losses beyond that predicted from an unobstructed Free Space condition which would result in lowered call quality and reliability. If the site were to be located here it would not meet our criteria for signal strength received by the mobile. Distance from this site to the target coverage area as well as its lack of an unobstructed microwave path back to Viaero's switching center and lack of connectivity to the proposed Viaero retail store which would be collocated with the site make it unacceptable as a co location candidate.

Site 4:

United States Cellular Corporation

Latitude: 40-55-13.0 N
Longitude: 98-23-11.0 W
Height: 92.0 Meters

This site is approximately .35 miles West of the proposed site. It is a 92.0 Meter high structure. While this site may meet criteria for mobile signal strength inside the Conestoga Mall, the tower is heavily loaded and does not offer space at a height which would allow for an unobstructed microwave path back to our switching center. Additionally, it would not provide the connectivity to the proposed Viaero retail store which would be collocated with the site and would make it unacceptable as a co location candidate.

Site 5:

Midland Telecom, Inc.

Latitude: 40-54-35.0 N
Longitude: 98-23-01.0 W
Height: 57.9 Meters



This site is approximately .75 miles South of the proposed site. It is a 57.9 Meter high structure. Test data in the desired coverage area of inside Conestoga Mall yield 30 dB (factor of 1000) variations in additional losses beyond that predicted from an unobstructed Free Space condition and would result in lowered call quality and reliability. If the site were to be located here it would not meet our criteria for signal strength received by the mobile. Distance from this site to the target coverage area as well as its lack of an unobstructed microwave path back to Viaero's switching center and lack of connectivity to the proposed Viaero retail store which would be collocated with the site make it unacceptable as a co location candidate. It should be noted that Viaero has actually co located on this tower in the last 5 years and removed our equipment from it due to poor cell site performance and structural instability of the tower to support our required antenna and transmission line loading.

Analysis of all available data has shown that our Network connectivity, reliability and coverage criteria are achieved with the selection of the proposed site. Additionally, as we anticipate authorization for Enhanced 911 (E911) deployment this year, this site would increase the location accuracy and reliability for our subscribers.

Please let me know if there is any additional information I may provide,

Sincerely,

A handwritten signature in black ink that reads "Wes Burnett". The signature is fluid and cursive, with a large, sweeping flourish at the end.


Wes Burnett
BSEE
VP Technical Operations
Viaero Wireless

Attachments:

ASR Registration Search

Registration Search Results

Displayed Results

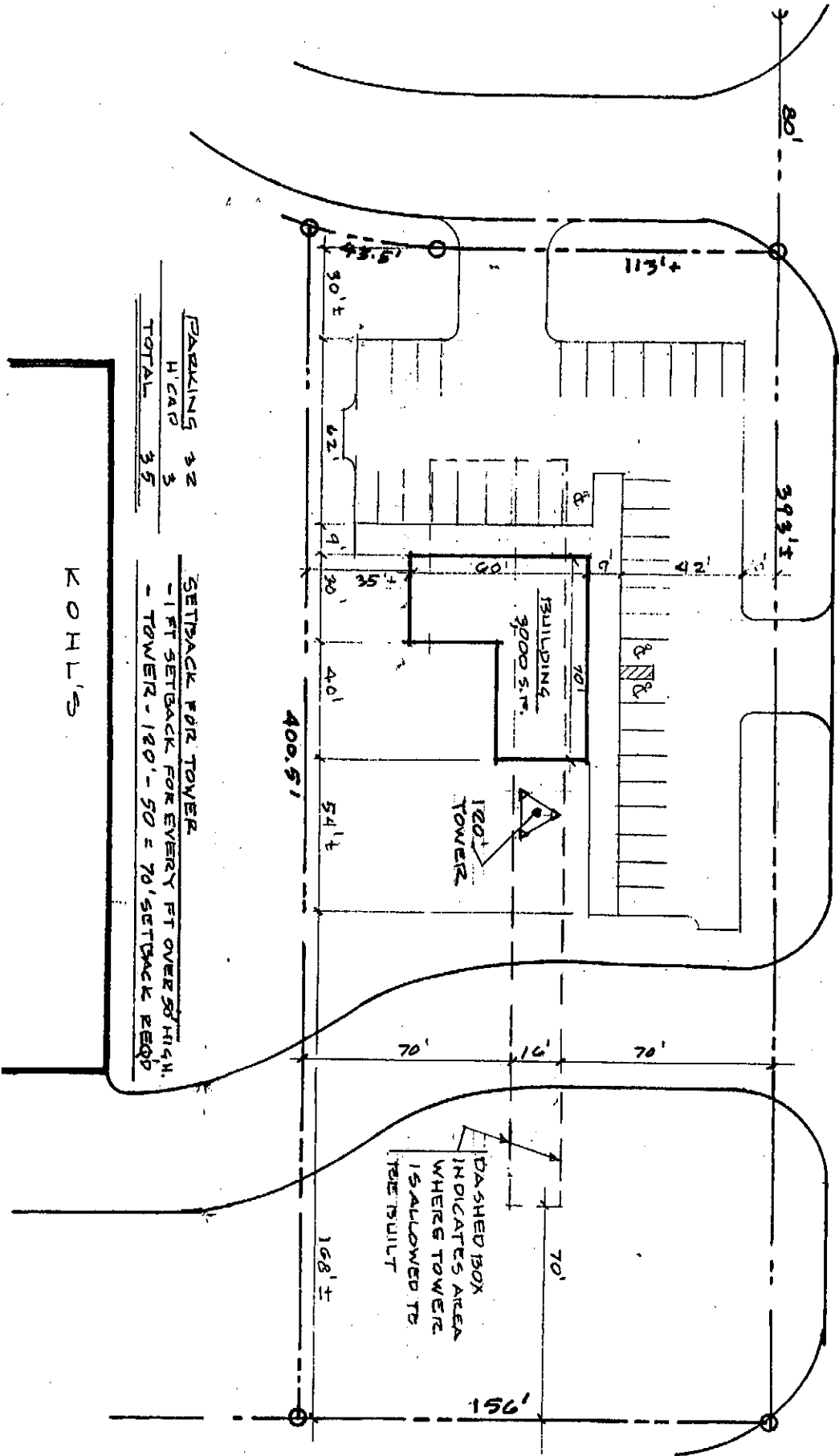
 = Pending Application(s)

Specified Search

Latitude=**40-55-12.7 N**, Longitude=**98-22-45.5 W**, Radius=**1.6 Kilometers**

| Registration Number | Status | File Number | Owner Name | Latitude/Longitude | Structure City/State | Overall Height Above Ground (AGL) |
|---------------------|-------------|-------------|--|-----------------------------|----------------------|-----------------------------------|
| 1 1025473 | Constructed | A0030238 | NEBRASKA, STATE OF | 40-55-00.0N 098-22-37.0W | GRAND ISLAND, NE | 93.5 |
| 2 1027246 | Constructed | A0032303 | PINPOINT COMMUNICATIONS INC | 40-54-50.0N 098-23-53.0W | GRAND ISLAND, NE | 68.0 |
| 3 1027392 | Constructed | A0454097 | ALIANTELL CELLULAR, INC. DBA ALLTEL COMMUNICATIONS, INC. | 40-55-59.0N 098-23-11.0W | GRAND ISLAND, NE | 59.1 |
| 4 1032461 | Constructed | A0490590 | UNITED STATES CELLULAR CORPORATION | 40-55-13.0N 098-23-11.0W | Grand Island, NE | 92.0 |
| 5 1034385 | Constructed | A0040748 | MIDLAND TELECOM INC. | 40-54-35.0N 098-23-01.0W | GRAND ISLAND, NE | 57.9 |

CLOSE WINDOW



| | |
|----------------|----|
| <u>PARKING</u> | |
| H.C.A.P | 3 |
| TOTAL | 32 |

SETBACK FOR TOWER
 - 1 FT SETBACK FOR EVERY FT OVER 50' HIGH.
 - TOWER - 120' - 50 = 70' SETBACK REQD

KOHL'S

VIAERO WIRELESS
 GRAND ISLAND NE

SITE PLAN
 1" = 50'



2-10-2006

281 & OLD POTASH LLC

410 17th Street, Suite 1705
Denver, Colorado 80202
Phone 303.571.4650 Fax 303.571.4651

March 31, 2006

Mr. Craig A. Lewis
Building Department Director
City of Grand Island
100 East First Street
Box 1968
Grand Island, NE 68802-1968

**RE: Grand Island City Council
Conditional Use Permit Application
Viaero Wireless Tower**

Dear Mr. Lewis:

We are in favor of Grand Island City Council granting a Conditional Use Permit for the erection and an approximately 120 foot tower to be used by Viaero Wireless. The sale of our land is contingent upon the approval of this Conditional Use Permit Application.

Please contact us with any questions you may have. We look forward to working with you throughout the permit process.

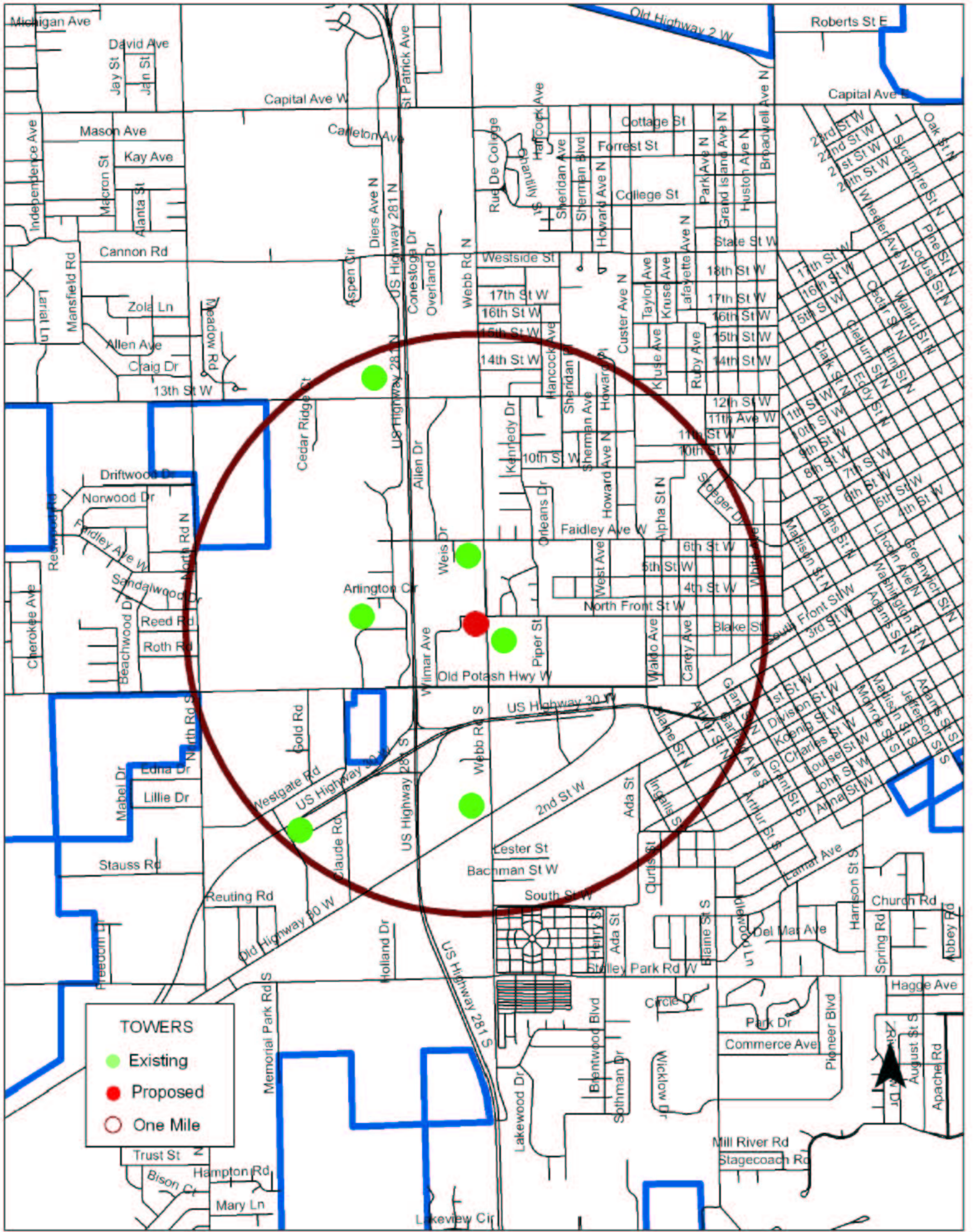
Sincerely,

281 & Old Potash LLC
By: Edgemark Development LLC
Its: Manager



Dave Gustavson
Vice President

Cc: File .25



TOWERS

- Existing
- Proposed
- One Mile

