



City of Grand Island

Tuesday, June 24, 2008

Council Session

Item E9

**Public Hearing on Request from Mission Nebraska, Inc. for a
Conditional Use Permit for Installation of a 40 Foot Tower
Located at 3347 West Capital Avenue**

Staff Contact: Craig Lewis

Council Agenda Memo

From: Craig A. Lewis, Building Department Director

Meeting: June 24, 2008

Subject: Request of Stanley Parker & Carolyn Simmons with Mission Nebraska, Inc. for Approval of a Conditional Use Permit to Construct a Telecommunication Tower at 3347 West Capital Avenue

Item #'s: E-9 & H-1

Presenter(s): Craig Lewis, Building Department Director

Background

This is a request to allow for the construction of a 40 foot tall studio transmitter tower and a 6 foot antenna for a total height of 46 feet. The tower will facilitate the proposed relocation of a radio studio and office located at 3347 West Capital Avenue. The Grand Island Zoning Code requires that all wireless communication 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, those items have been submitted, with the exception of; 1) the engineering design of the tower, and 2). All towers located within one mile of the proposed location.

The engineering design of the tower is appropriate to submit after council approval and before a permit is issued for construction.

The submitted identification of other towers within a one mile radius has been reviewed and two additional tower locations within the one mile radius have been identified. None of the towers within the one mile radius appears adequate for collocation.

This request is to construct and attach a tower on the south side of the existing building which will transmit a radio signal from this location to the broadcast tower north of Doniphan, NE.

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 approve the request for a conditional use permit to construct this wireless communication tower.

Sample Motion

Move to approve the request for a conditional use permit to construct a wireless communication tower at 3347 West Capital Avenue finding no adverse impact to the surrounding neighborhood.

Conditional Use Permit Application

(Typed copy of submitted application, in case copy is hard to read for 3347 W. Capital Ave. by O'Connor Enterprise.)

1. The specific use/construction requested is: installation of a 40 foot tower for an STL antenna for transmission of programming to a radio antenna in Doniphan.
2. The owner of the described property is/are: O'Connor Enterprise, Inc.
3. The legal description of the property is: Bels Sub PT LTS 1-2-3-4 and ALL LTS 5-6-7-8.
4. The address of the property is: 3347 W. Capital Ave.
5. The zoning classification of the property is: commercial
6. Existing improvements on the property is: Gateway Plaza Professional Center
7. The duration of the proposed use is: minimum of 20 years
8. Plans for construction of permanent facility is: tower to be completed by July 31, 2008
9. The character of the neighborhood is: retail and business
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: Mission Nebraska, Inc, owns radio station 95.7FM, currently with an office by the tower north of Doniphan. We are moving our office and studio to Grand Island and need a tower to mount the antenna which will transmit programming to the Doniphan tower to be broadcast throughout central Nebraska.

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

June 11, 2008

Original application is signed.

6-10-2008

Subject: Proposed KROA Grand Island STL tower.

1. KROA's proposed STL (Studio to Transmitter Link), FCC part 74.501 aural microwave facilities cannot be installed or collocated on another tower due to the complex specific high frequencies of the STL transmitter, which must be located at the studio, and with the outdoor transmit antenna within 100 feet.

2. Proposed tower is a Rohn 25G bracketed tower, with a cement foundation in the ground and attached to the building at 15 foot level. Tower designs are in accordance with approved national standard ANSI/EIA-222-E.

3. Photo A Taken from the front of 3347 West Capital Ave., from the road. Proposed tower in blue ink.

Photo B Alley way behind 3347, looking north.

Photo C Alley way looking east. Note other poles with antennas in alley way.

Photo D Taken from alley way.

4. Installed behind office/studio at 3347 West Capital Ave. in the alley way next to the building will be a Rohn 25G bracketed 40 foot tall, 12.5 inch width triangular heavy duty TV tower, with a 2 3/8 OD short pole at the top for mounting a Scala MF-950B miniflector STL antenna. Tower will also have on it a antenna or antennas to receive the National Weather Service for the public Emergency Alert System and a small TV/FM type antenna for picking up the KRC radio signal. Bottom 10 feet of the tower will have ANTI Climb panels installed on it so no one will be able to climb the tower. Tower will be protected from vehicle traffic with two round pipes filled with cement, installed just in front of it, similar to the power company transformer in alley apx. 200 feet east of our tower.

Val Lane



Chief Engineer KROA Radio

308-236-7201 office

308-627-4766 cell

PHOTO A

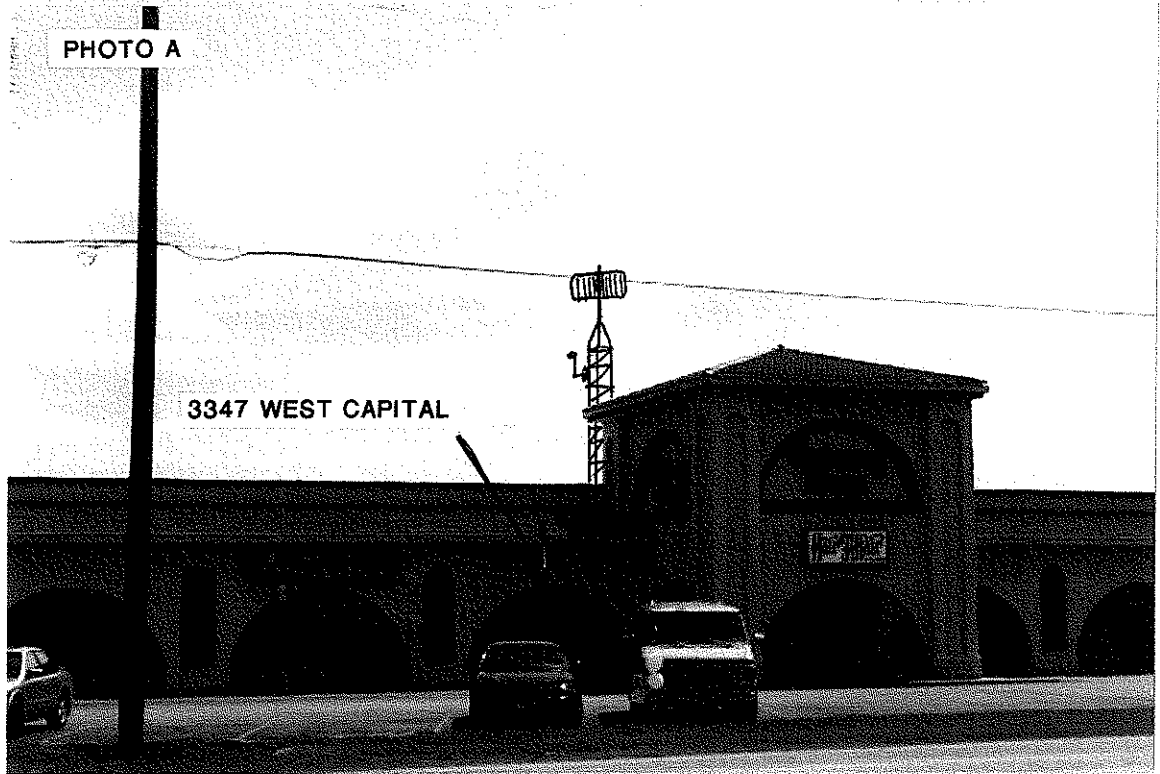
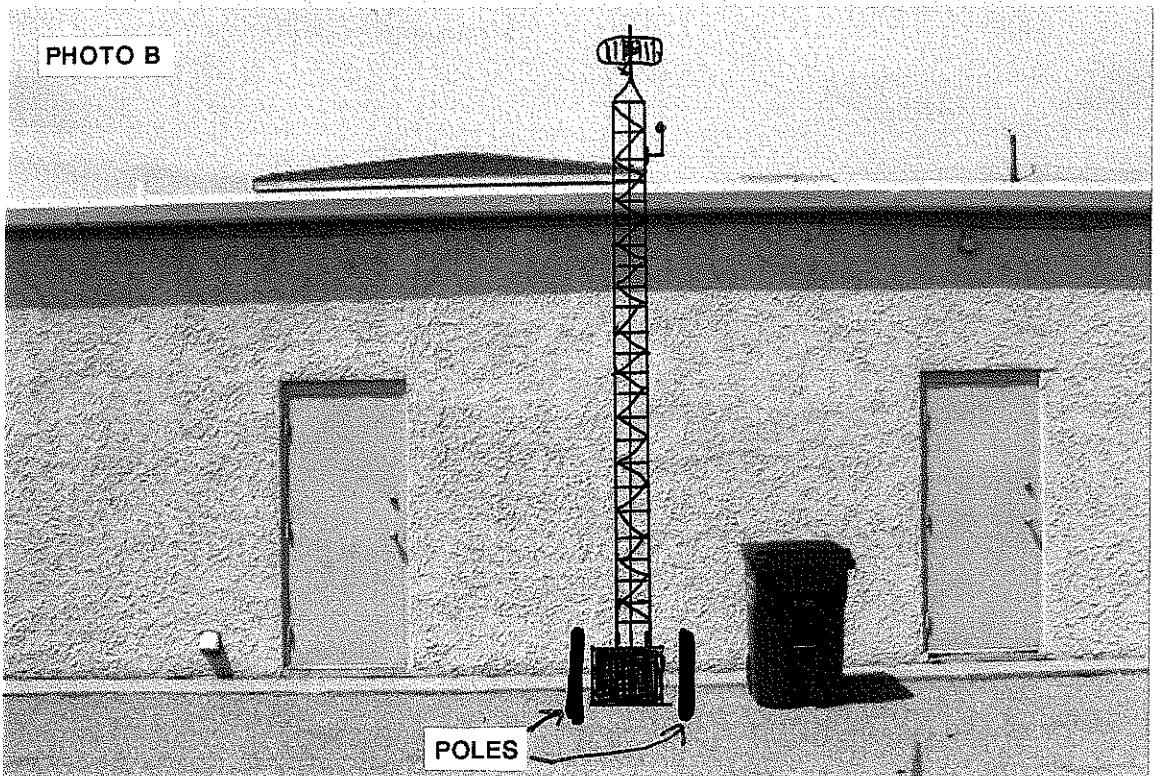
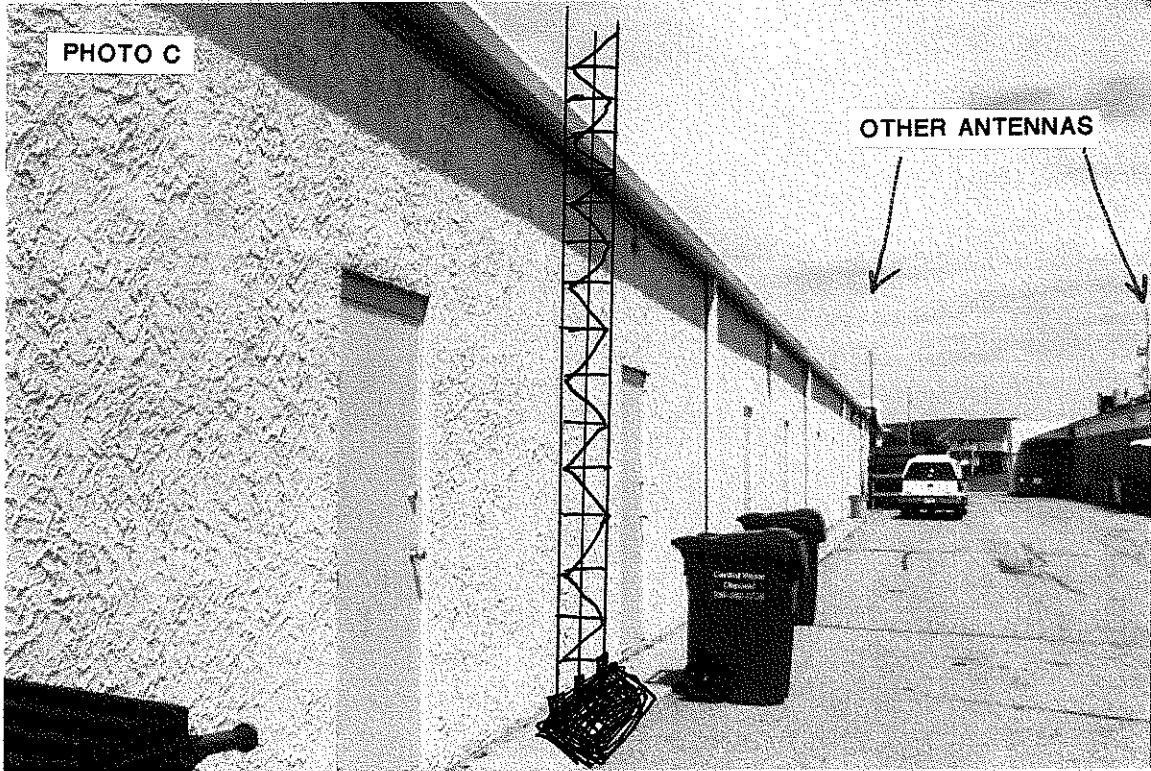


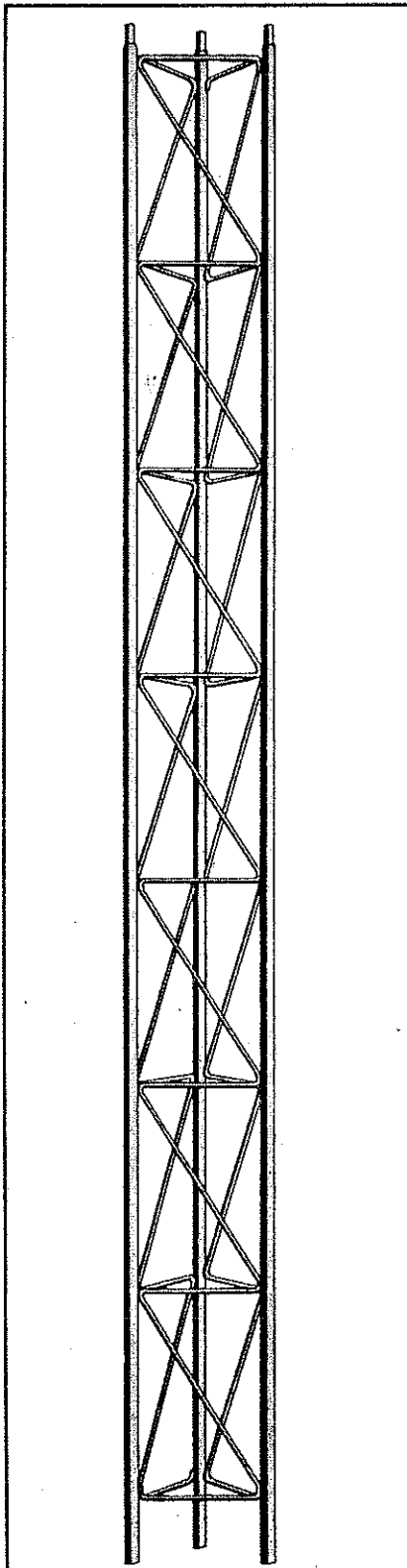
PHOTO B





ROHN® 25G

Communications Structure



GENERAL USE

The 25G is a general purpose communications or heavy duty T.V. tower which will satisfy a wide range of needs.

DESIGN

The 25G is built on a 12-1/2" equilateral triangular design with continuous steel Zig-Zag® cross bracing, entirely electrically welded and fabricated in precision equipment. The 8 Zig-Zag braces per 10' section mean more than usual strength for a structure of this size. The ROHN 25G is at least 33% stronger and far more durable than similar size and type towers found on the market today. At the same time, the ROHN production system means lower costs...giving you a tower actually costing less than some other towers.

CONSTRUCTION

The 25G is an extraordinarily rugged structure, with extra heavy-duty 1-1/4" steel tubing side rails, and continuous steel solid rod bracing electrically welded throughout. Superior strength has always been foremost in ROHN towers, achieved by setting high standards for all steel used. These standards are constantly maintained by scientific testing according to accepted laboratory procedures, resulting in a level of quality which never varies!

FINISH

Every 25G receives the ROHN Hot Dip Galvanized long life finish, the most durable and efficient corrosion protection known. The tower sections, as well as all accessories, are completely hot dip galvanized, both inside and out after fabrication to protect all points of construction and welding against corrosion. The galvanizing also provides an attractive and long lasting finish.

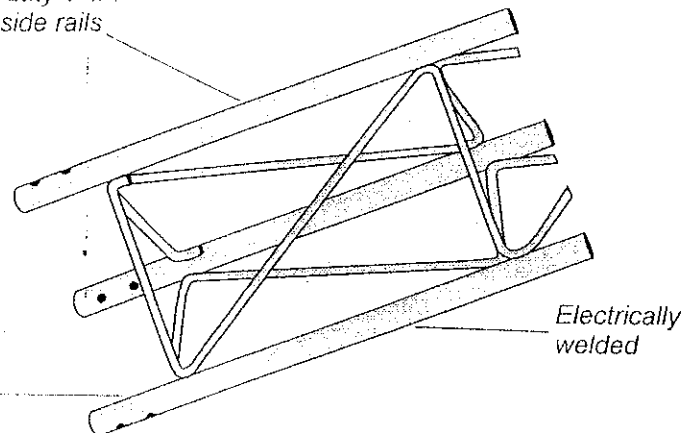
SPECIAL FEATURES

The 25G is available both in the standard 10' section length and a special 7' length which is UPS shippable. The 25G uses double bolted joints...proven the best method of joining tower sections for sturdiness and dependability. The extra strength of the No. 25G allows it to be self supporting providing a house bracket is used, and under normal conditions the 25G can rise 35 feet above this bracket. Under most guyed conditions the 25G is suitable to heights of 190 feet. Where special conditions or unusual antenna loadings must be met, we suggest you contact the sales department for complete information.

Assembly bolts and nuts are located within 1 leg of the tower section.

Extra heavy-duty 1-1/4"
steel tubing side rails

Double
bolted
section
joints for
high
strength



Section length is 10' or 7'

ROHN.

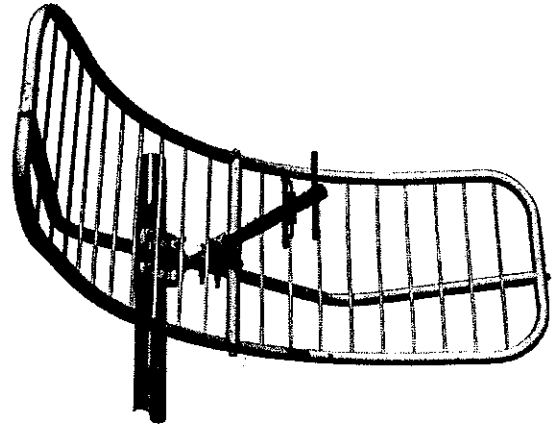
6718 West Plank Road
P.O. Box 2000
Peoria, Illinois 61656 USA
PH: 309-697-4400
FAX: 309-697-5612



MF-950B
MINIFLECTOR® ANTENNA
 14 dBd gain
 940–960 MHz

The Kathrein Scala Division Miniflector is a medium-gain half-parabolic antenna used in a variety of professional fixed-station applications. The MF-950B is a very cost-effective solution specifically designed for use in aural broadcast studio-to-transmitter (STL) links and other point-to-point systems operating in the 940–960 MHz band.

All Kathrein Scala Division Miniflectors feature heavy-duty construction of anodized aluminum pipe, tubing and castings plus stainless steel hardware and fastenings for corrosion resistance. The feed assembly is foam-potted and sealed for maximum reliability in severe environments. The Miniflector has low weight and windload characteristics and its compact size allows quick and convenient transport via UPS or Federal Express.



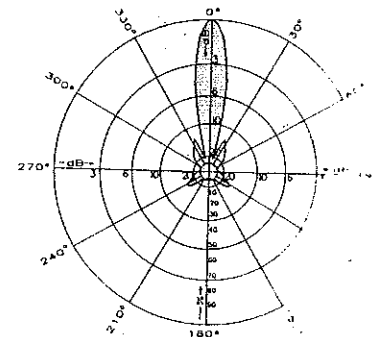
Specifications:

Frequency range	940–960 MHz (broadband)
Gain	14 dBd
Impedance	50 ohms
VSWR	< 1.3:1
Polarization	Vertical (see note below)
Front-to-back ratio	>23 dB
Maximum input power	100 watts (at 50°C)
H-plane beamwidth	16 degrees (half-power)
E-plane beamwidth	34 degrees (half-power)
Connector	N female
Weight	13 lb (5.9 kg)
Dimensions	46.5 x 18 x 16 inches (1181 x 457 x 406 mm)
Equivalent flat plate area	2.66 ft ² (.247 m ²)
Wind survival rating*	100 mph (160 kph)
Shipping dimensions	47 x 18.5 x 16.5 inches (1194 x 470 x 419 mm)
Shipping weight	20 lb (9.1 kg)
Mounting	Mounting kits available for masts of 2.375 to 4.5 inch (60 to 114 mm) OD.

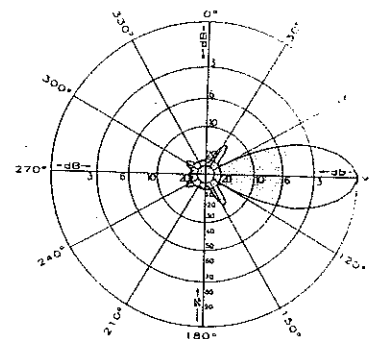
See reverse for order information.

Note: Contact Kathrein Scala Division Sales Engineering for instructions regarding installation with horizontal polarization using optional special hardware.

* Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.



H-plane
Horizontal pattern – V-polarization



E-plane
Vertical pattern – V-polarization



10045-F

MINIFLECTOR is a registered trademark of Kathrein Inc., Scala Division.

Kathrein Inc., Scala Division · Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-6575
 Email: broadcast@kathrein.com Internet: www.kathrein-scala.com