

**ENGINEERING STATEMENT**

**In support of a request for**

**Displacement for LPTV Translator Application**

**K22IC-D Channel 36**

**Strong City, OK**

**Facility ID: 168315**

**PURPOSE**

MARSAND, INC. has been retained by Oklahoma Community Television, LLC ("OKCT"), licensee of digital TV translator K22IC-D, the "station", in Strong City, OK, to prepare this engineering statement in support of a displacement application and accompanying Special Temporary Authority (STA).

**DISCUSSION**

The station currently operates on channel 22 and receives its programming over the air on channel 43 from K43KT-D in Elk City, OK. OKCT is also licensee K43KT-D. K43KT-D has received a letter from T-Mobile providing 120 day notice to vacate its channel 43 before T-Mobile commences operations or testing as K43KT-D will likely cause interference operating on its current channel. OKCT proposes to change the channel for K43KT-D from 43 to channel 22 in a separate filing and requests a waiver of the Displacement Freeze in an accompanying STA.

Given the K43KT-D displacement to channel 22 and that K22IC-D cannot both receive and transmit on channel 22, OKCT respectfully requests a waiver of the Displacement Freeze for this application to move to channel 36. The grant of this waiver will allow the station to continue servicing its viewers with minimal interruption.

**INTERFERENCE STUDY**

An interference study was performed on the proposed facility using the FCC TVStudy v2.2.3 software, and the results of which show no predicted new interference in excess of the

allowable 0.50% to full-service and Class A stations or 2.00% to other LPTV's. A summary is included as **Exhibit 1**.

## ENVIRONMENTAL STATEMENT

The proposed facility has been evaluated according to FCC OET Bulletin No. 65 "Evaluating Compliance With FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-01, and has been found to comply with the limits set forth in Section 1.1310 of the Rules. The total exposure as defined by the ANSI standard computations for occupational/controlled area is  $0.06 \mu\text{W}/\text{cm}^2$ , or 0.02% of the  $2.02 \text{ mW}/\text{cm}^2$  maximum. The total exposure as defined by the ANSI standard computations for general population/uncontrolled area is 0.01% of the  $403 \mu\text{W}/\text{cm}^2$  maximum. The proposed facility contributes power densities less than 5% of the exposure limit at this site and is therefore categorically excluded from further RF exposure evaluation. The Applicant agrees to maintain full compliance with the safety precautions to workers on the tower (controlled) and the general public (uncontrolled) by reducing or removing radiated power during the time of construction or maintenance on or near the antenna. The Applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from Radiofrequency Electromagnetic exposure in excess of FCC guidelines

## CONCLUSION

It is respectfully requested that the Commission grant this displacement application and accompanying request for STA for the facilities as specified herein.

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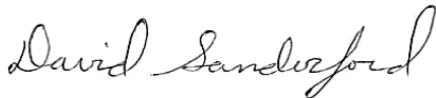
## DECLARATION

David Sanderford, EIT, declares and states that he is a graduate Electrical Engineer with a Bachelor of Science Degree in Electrical Engineering from the Georgia Institute of Technology, and his qualifications are known to the Federal Communications Commission, and that he is Vice-President of MARSAND, INC., a Registered Professional Engineering firm in the State of Texas, and that firm has been retained by Oklahoma Community Television, LLC, to perform the engineering support as contained in this report.

All facts contained herein are true of his own knowledge except where stated to be on information or belief provided by others, and as to those facts, he believes them to be true.

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I declare under penalty of perjury that the foregoing is true and correct.



\_\_\_\_\_  
David Sanderford, EIT  
Vice-President - MARSAND, INC.

Executed this 13<sup>th</sup> day of September, 2017  
State of Texas

# MARSAND, INC.

Matthew A. Sanderford, Jr., P.E.

## EXHIBIT 1

Study created: 2017.08.25 14:07:17

Study build station data: LMS TV 2017-08-08 (11)

Proposal: K22IC-D D36 LD LIC STRONG CITY, OK  
File number: okct\_k22ic-d\_prop02  
Facility ID: 168315  
Station data: User record  
Record ID: 226  
Country: U.S.

Build options:  
Protect records not on baseline channel

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KUOK	D35	DT	LIC	WOODWARD, OK	BLANK0000004509	55.9 km
K36IY-D	D36	LD	LIC	WEATHERFORD, OK	BLDTT20100225ABI	83.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D36  
Mask: Stringent  
Latitude: 35 46 58.00 N (NAD83)  
Longitude: 99 35 14.00 W  
Height AMSL: 817.0 m  
HAAT: 0.0 m  
Peak ERP: 0.450 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic

50.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.450 kW	171.7 m	30.3 km
45.0	0.450	175.7	30.5
90.0	0.450	216.4	32.7
135.0	0.450	214.0	32.6
180.0	0.450	210.8	32.4
225.0	0.450	190.3	31.3
270.0	0.450	126.2	27.3
315.0	0.450	181.1	30.8

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m Computed HAAT: 186 m

Distance to Canadian border: 1469.0 km

Distance to Mexican border: 688.3 km

Conditions at FCC monitoring station: Grand Island NE  
Bearing: 9.7 degrees Distance: 580.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 316.0 degrees Distance: 689.9 km

Study cell size: 1.00 km  
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

**No IX check failures found.**