

**ENGINEERING STATEMENT**

**In support of a request for**

**Minor Modification of a Licensed Facility for DTV Application**

**Priority Filing Window**

**KPBT-TV Channel 28**

**Odessa, Texas**

**Facility ID: 50044**

**PURPOSE**

MARSAND, INC. has been retained by Permian Basin Public Telecommunications, Inc., the “applicant”, to prepare this engineering statement in support of a request for a Minor Modification of a Licensed Facility for DTV Application pursuant to the Commission’s directive in *Procedures for the Post-Incentive Auction Broadcast Transition*, DA 17-106, released January 27, 2017 and the *Incentive Auction Closing and Channel Reassignment Public Notice*, DA 17-314, released April 13, 2017 for KPBT, the “station”.

During the Initial Filing Window, the applicant determined the station was “unable to construct” and was granted a waiver to file during the Priority Filing Window (LMS File Id. 24908). The accompanying application proposes an alternate facility that will retain the station’s reassigned channel 28 by utilizing a new elliptically polarized side mount antenna, transmission line and transmitter at a tower site located 21.7km north of its present site to be able to meet the construction deadline for its transition phase. The proposed DTV facility will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice and will match or reduce by no more than five percent with respect to predicted population from those defined in the notice. However, the noise-limited service contour for the proposed facility will exceed the baseline service contour established by the post-incentive auction channel reassignment public notice. The antenna structure (ASRN 1053361) to be used by this facility has been registered by the Commission and will not require reregistration.

**DISCUSSION**

The applicant currently is licensed and operating on channel 38 with Digital TV service with 220 kW ERP at 85.1 m HAAT (BLEDT-20121107AAF). The station has been reassigned channel 28 with 179 kW ERP at 85.1 m HAAT with reference coordinates: 31-53-50.3 N, 102-20-15.5 W (NAD83). The station operates on its pre-auction channel with facilities located on a leased tower. The tower failed to meet the TIA-222-G standard when a tower structural analysis was performed. The tower location and surroundings prevent modifying the tower. The station has identified another tower where it can construct facilities for its post-auction channel.

Summary of the proposed facility:

Post-Auction Channel:..... 28  
Antenna Coordinates (NAD83):..... 32-05-11.0 N 102-17-12.0 W  
ERP (kW):..... 650  
HAAT (m):..... 237

The proposed service area exceeds the FCC baseline +1%, however it will maintain a service area population of more than 95% of baseline. The study results of this proposal utilizing the FCC TVStudy v2.2.3 software are included as **Exhibit 1**.

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 as shown in **Exhibit 2**. The total exposure as defined by the ANSI standard computations for occupational/controlled area is 9.00 % of the maximum. The total exposure as defined by the ANSI standard computations for general population/uncontrolled area is 44.37 % of the maximum.

The proposed site falls within coordination distance of the Mexican border, however the predicted radiation toward the Mexican border does not exceed that which would be generated by the coordinated facility:

- 1. Channel: 28
- 2. City State: Odessa, TX
- 3. Transmitter geographic coordinates LN: 31 51’ 50.80”  
LW: 102 34’ 42.50”

- |  |                 |
|--|-----------------|
| 4. Call Sign:                                | KPBT-TV         |
| 5. Apparent radiated power:                  | 500.000 kW      |
| 6. Height of the Sea Level Radiation Center: | 1178.00 meters  |
| 7. Antenna:                                  | Non-Directional |

The proposed coverage pattern is included as **Exhibit 3** and shows the proposed noise limited contour lies well within the contour for the coordinated facility.

**CONCLUSION**

It is respectfully requested that the Commission grant this request for minor modification for these 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 Permian Basin Public Telecommunications, Inc., 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.



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

Executed this 14<sup>th</sup> day of September, 2017  
State of Texas

# MARSAND, INC.

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

## EXHIBIT 1

Study created: 2017.09.14 01:04:43

Study build station data: LMS TV 2017-09-06 (13)

Proposal: KPBT-TV D28 DT BL ODESSA, TX  
File number: KPBT\_PROPOSED16  
Facility ID: 50044  
Station data: User record  
Record ID: 272  
Country: U.S.

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KYVV-TV	D28	DT	APP	DEL RIO, TX	BMPCDT20080618ACC	367.0 km
KYVV-TV	D28	DT	LIC	DEL RIO, TX	BLCDT20110527AKP	333.8
KUPT	D29	DT	LIC	HOBBS, NM	BLCDT20081125ADR	104.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D28  
Latitude: 32 5 11.00 N (NAD83)  
Longitude: 102 17 12.00 W  
Height AMSL: 1132.0 m  
HAAT: 237.0 m  
Peak ERP: 650 kW  
Antenna: Omnidirectional  
Elev Pattnr:

40.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	650 kW	235.2 m	85.0 km
45.0	650	237.5	85.3
90.0	650	260.5	88.5
135.0	650	255.8	87.7
180.0	650	238.3	85.4
225.0	650	230.3	84.5
270.0	650	221.4	83.7
315.0	650	218.7	83.4

\*\*Proposal service area extends beyond baseline plus 1.0%  
Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 1879.8 km

\*\*Proposal is within coordination distance of Mexican border  
Distance to Mexican border: 245.3 km

Conditions at FCC monitoring station: Kingsville TX  
Bearing: 139.4 degrees Distance: 668.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 344.4 degrees Distance: 930.7 km

Study cell size: 2.00 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.

**EXHIBIT 2****ENVIRONMENTAL STATEMENT**

The proposed facility complies in full with the requirements of 47 C.F.R. Section 1.1306 and will have no significant environmental impact. The proposed site does not involve any of the conditions specified in Section 1.1307(a)(1) - (6) of the Rules.

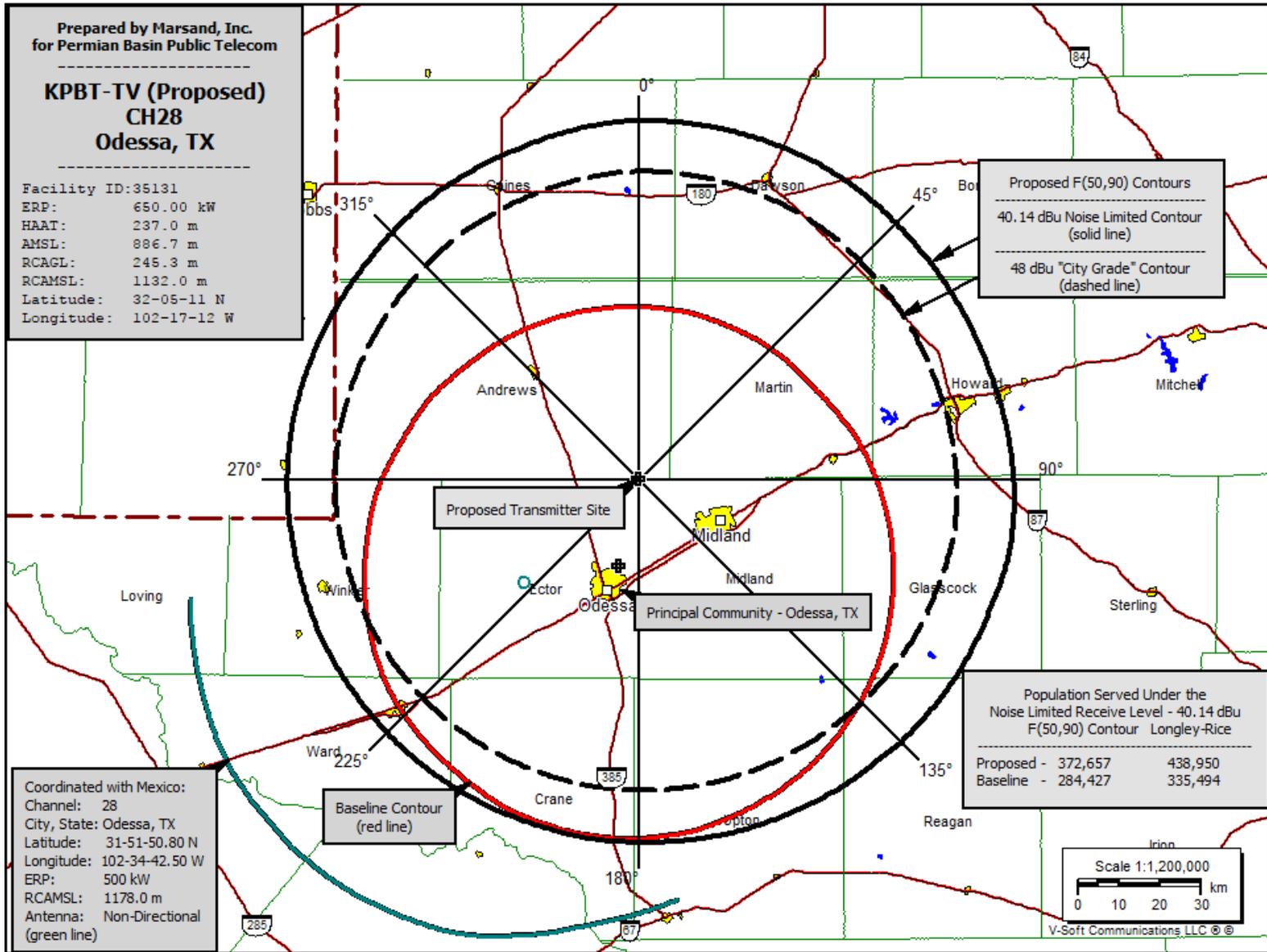
The facility of KPBT has been studied in accordance with the procedures set forth in the FCC OET Bulletin No. 65 "Evaluating Compliance With FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-01, and has been found to comply with the limits set forth in Section 1.1310 of the Rules. This determination has been based upon calculations with the total radiated power from all TV & FM co-located broadcast emitters. The total exposure as defined by the ANSI standard computations for occupational/controlled area is **9.00 %** of the maximum. The total exposure as defined by the ANSI standard computations for general population/uncontrolled area is **44.37 %** of the maximum. The proposed facility is in compliance with the Commission's guidelines.

<b>Multiple Use FM/TV Tower</b>						
Location:	<b>KPBT-TV Odessa, TX</b>					9/14/17
<b>Channel Frequency Type</b>	<b>Call Letters</b>	<b>Service</b>	<b>ERP (W) H+V</b>	<b>Ant Center of Radiation AG (m)</b>	<b>% of ANSI/FCC Limit (6min)</b>	<b>% of ANSI/FCC Limit (30 min)</b>
<b>28</b>	<b>KPBT-TV</b>	TV UHF#1	812,500	245.30	0.97	4.91
<b>96.1</b>	<b>KMRK-FM</b>	FM #1	29,000	289.00	0.35	1.76
<b>96.9</b>	<b>KMCM(FM)</b>	FM #2	100,000	137.80	5.28	26.60
<b>103.3</b>	<b>KCRS-FM</b>	FM #3	200,000	289.00	2.40	12.11
<b>Total %</b>					<b>9.00</b>	<b>45.37</b>
<b>IN COMPLIANCE</b>						

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

The Applicant is believed to be in full compliance with the Environmental Impact and Commission Rules.

## EXHIBIT 3



# MARSAND, INC.

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

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