

**DELAWDER COMMUNICATIONS, INC.**

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**ENGINEERING REPORT**

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**Sanger, TX, Channel 226D FM Translator Application**

**ENGINEERING STATEMENT**

Primera Iglesia Evangelica Apostoles y Profetas Nazareth, Inc. ("Applicant") proposes this minor change modification to K225BR to specify use of channel 226D (as opposed to 225D) at its new transmitter site that will now serve Decatur, TX as a fill-in FM translator for KYDA. (An HD signal planned for KYDA will be re-transmitted.) K225BR is currently authorized on channel 225D at Sanger, TX.

The displacement from channel 225 to channel 226 is deemed a minor change pursuant to Section 74.1233(a) of the FCC Rules.

Figure EE-A, attached, is a map showing 60 dBu F50,50 contour overlap between the initial 2003 facility and herein proposed facility.

**CHANNEL STUDY**

Attached as Figure EE1 is a channel study for the proposed channel 226D facility. All required protections are met by contour non-overlap pursuant to Section 74.1204, with the exception of protection to KNOR 229C0, licensed to Krum, TX. KNOR is protected, as discussed below.

**CONTOUR NON-OVERLAP PROTECTION SHOWING**

Figure EE2, attached, shows non-overlap between the service contour of KMKT, Bells, TX, 226C3 and the interference contour of the proposed channel 226D facility. All contours were determined pursuant to Section 73.313 of the FCC Rules using a USGS 30 arc-second terrain database at one-degree radial intervals.

**PROTECTION TO KNOR**

KNOR, Krum, TX, 229C0 is third adjacent-channel to the proposed channel 226D facility. The 60 dBu F50,50 service contour of KNOR extends well beyond the

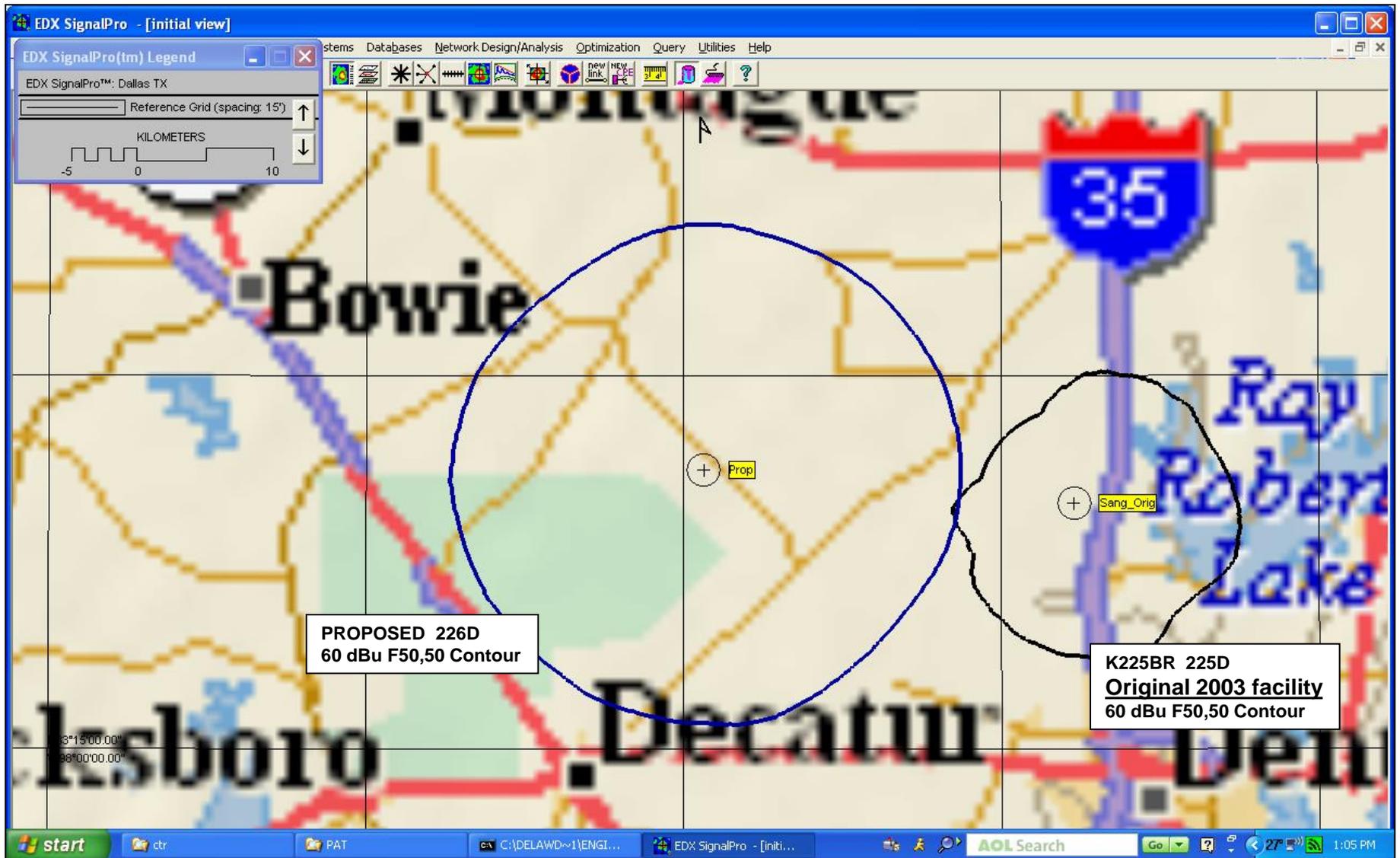
proposed 226D transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to KNOR.

Note that a rule waiver of Section 74.1204 for this second/third adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to this station.

The F50,50 signal strength from KNOR at the proposed 226D transmitter site is greater than 90 dBu (the “desired” signal). The second/third adjacent-channel protection of Section 74.1204 is an undesired-to-desired (“U/D”) dB signal strength ratio of 40:1. Therefore, predicted interference to KNOR from the proposed 226D facility is a signal of greater than or equal to 130 dBu.

The 130 dBu signal based on a free space field determination is predicted to extend out to 14 meters from the proposed LPFM transmit antenna. The interfering signal level will not reach any point at ground level or at 2 meters above ground level. (The clearance is more than 400 meters.) Therefore, KNOR is adequately protected by the proposed facility.

# FIGURE EE-A: K225BR TO DECATUR, TX, 226D FACILITY CONTOUR OVERLAP SHOWING



**SECTION 74.1204 CHANNEL STUDY**

**PROJECT: DECATUR, TX, 226D FROM PROPOSED SITE**

**STUDY COORDINATES: N 33-26-13.0; W 97-29-05.0 (N D-M-S; W D-M-S)**

Call Docket	Channel FacilityID	Class Service	Frequency ERP	Status DA?	City HAAT	State RCAMSL	Country RCAGL	File Number
Latitude	Longitude			ASRN	Dist (km)	Dist (mi)	Azimuth	
Licensee/Permittee								
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KZPS -	223 C 6378	FM	92.5 MHz 100. kW	LIC	DALLAS 508. m	TX	US	BMLH-20060907AAO
N 32 35	19.00 W	96 58	5.00	1045531	105.75 km	65.71 mi	152.81°	
AMFM TEXAS LICENSES LLC								
<b>Protected Contour Dist: 89.3 km Prop 226D Interf Contour Dist: &lt;2.0 km</b>								
<b>Result: 14.4 km CLEAR (WORST-CASE STUDY)</b>								
KNIN-FM -	225 C1 43754	FM	92.9 MHz 100. kW	LIC	WICHITA FALLS 246.3 m	TX	US	BLH-20101122AEK
N 33 54	4.00 W	98 32	21.00	1049789	110.52 km	68.67 mi	298.17°	
TOWNSQUARE MEDIA WICHITA FALLS LICENSE, LLC								
<b>Protected Contour Dist: 69.6 km Prop 226D Interf Contour Dist: 28.6 km</b>								
<b>Result: 12.3 km CLEAR (WORST-CASE STUDY)</b>								
K225BR -	225 D 146564	FX	92.9 MHz 0.25 kW	CP	SANGER 58. m	TX	US	BNPFT-20130819AAY
N 33 24	52.00 W	97 11	32.00	1047192	27.32 km	16.97 mi	95.19°	
IGLESIA EVANGELICA APOSTOLES Y PROFETAS NAZARETH, INC,								
<b>NOTE: THIS IS THE FACILITY THAT IS BEING MODIFIED BY THIS MINOR CHANGE APPLICATION</b>								
NEW -	225 L1 194281	FL	92.9 MHz 0.0206 kW	APP	SOUTHLAKE 64.8 m	TX	US	BNPL-20131112BEB
N 32 59	11.00 W	97 9	26.00	1056266	58.56 km	36.39 mi	148.60°	
SOUTH LAKE HISPANIC COMMUNITY CHURCH								
<b>Protected Contour Dist: 5.6 km Prop 226D Interf Contour Dist: 28.6 km</b>								
<b>Result: 24.4 km CLEAR (WORST-CASE STUDY)</b>								
KMKT -	226 C3 77588	FM	93.1 MHz 6.8 kW	LIC	BELLS 191. m	TX	US	BLH-19970815KB
N 33 41	31.00 W	96 26	36.00	1019527	100.75 km	62.60 mi	73.34°	
NM LICENSE, LLC								
<b>Protected Contour Dist: 41.6 km Prop 226D Interf Contour Dist: 64.3 km</b>								
<b>Result: -5.2 km SHORT (WORST-CASE STUDY); SEE CONTOUR NON-OVERLAP STUDY THAT SHOWS PROTECTION</b>								
KLIF-FM -	227 C2 27299	FM	93.3 MHz 50. kW	LIC DA	HALTOM CITY 120. m	TX	US	BLH-20010522AAR
N 32 46	44.00 W	96 55	22.00	1209110	89.87 km	55.85 mi	144.27°	
SUSQUEHANNA RADIO CORP.								
<b>Protected Contour Dist: 51.1 km Prop 226D Interf Contour Dist: 28.6 km</b>								
<b>Result: 10.2 km CLEAR (WORST-CASE STUDY)</b>								

**SECTION 74.1204 CHANNEL STUDY**

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KLIF-FM 227 C2 FM 93.3 MHz CP HALTOM CITY TX US BPH-20130425ABE  
 - 27299 16.5 kW DA 264. m 414. m 284. m  
 N 32 46 48.00 W 96 48 13.00 1064625 96.70 km 60.08 mi 138.84°  
 SUSQUEHANNA RADIO CORP.

**Protected Contour Dist: 54.4 km Prop 226D Interf Contour Dist: 28.6 km  
 Result: 13.7 km CLEAR (WORST-CASE STUDY)**

KNOR 229 C0 FM 93.7 MHz LIC KRUM TX US BLH-20100719AFA  
 - 36289 43. kW 600.2 m 881.1 m 601.6 m  
 N 33 29 5.00 W 97 24 44.00 1248974 8.57 km 5.33 mi 51.67°  
 LIBERMAN BROADCASTING OF DALLAS LICENSE LLC

**NOTE: A SHOWING BASED ON THE LIVING WAY MINISTRIES METHODOLOGY TO THIS STATION IS INCLUDED WITH THIS APPLICATION THAT DEMONSTRATES PROTECTION TO THIS FACILITY.**

Study Complete

# FIGURE EE2: PROPOSED DECATUR, TX, 226D FACILITY NON CONTOUR OVERLAP WITH KMKT 226C3 SHOWING

