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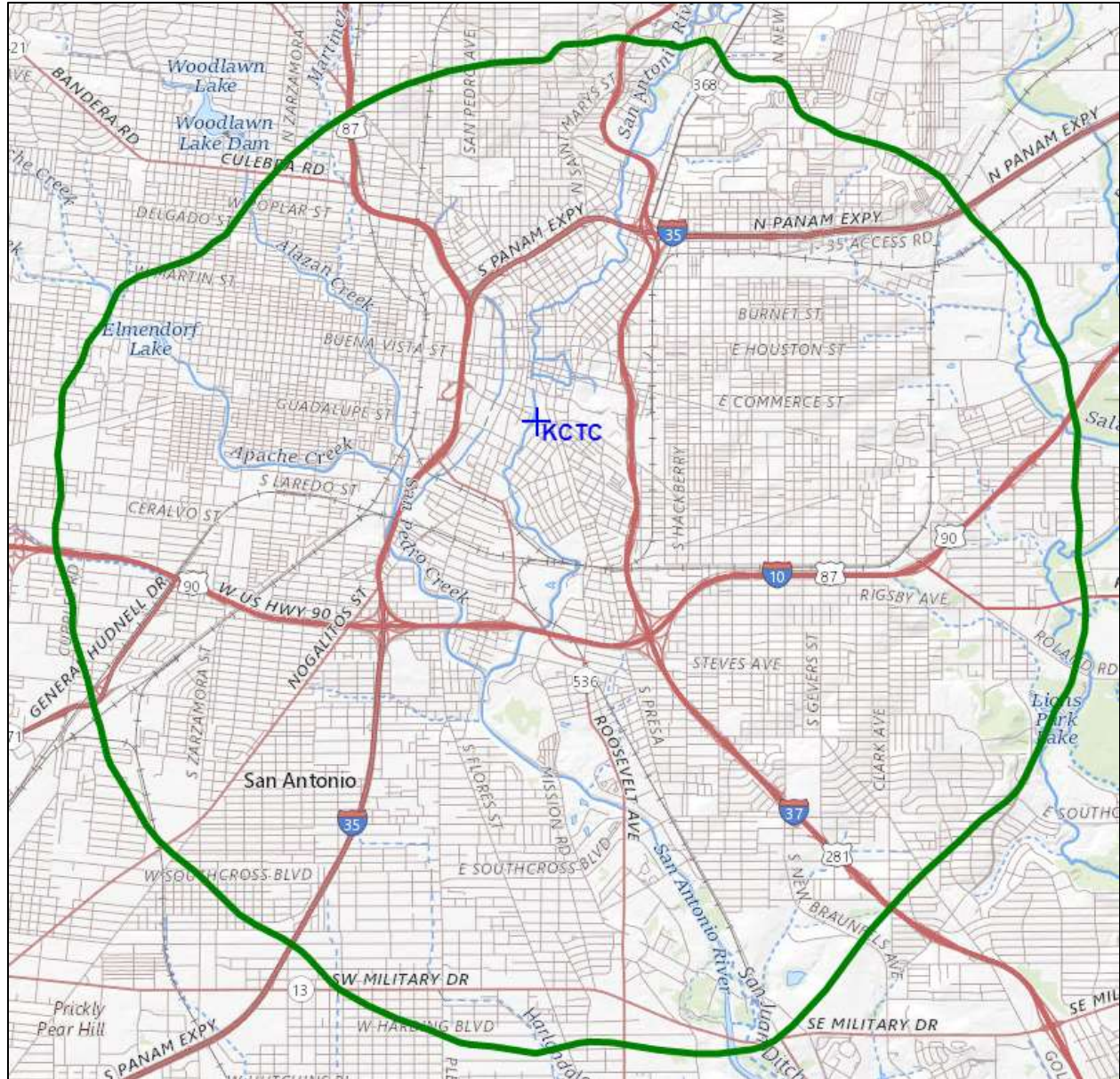
Minor Modification for KCTC-LP

SAN ANTONIO, TX

OMEGA CHRISTIAN COMMUNICATIONS

BLL-20150523AAI

PROPOSED 60dBu F(50,50) SERVICE CONTOUR



SAN ANTONIO, TX – Channel 251LP100 (98.1 MHz) ~ ERP 0.037 kW

Elev: 192 meters ~ RCAGL: 72 meters ~ RCMSL: 264 meters ~ HAAT: 49 meters (GLOBE)

Overall tower height: 184.1 meters – ASR: 1053689

NAD83 Latitude: 29° 25' 06.0" NL – Longitude: 98° 29' 32.0" WL

NAD27 Latitude: 29° 25' 05.2" NL – Longitude: 98° 29' 30.9" WL.

Site: KCTC-LP
 Coordinates: 29-25-05.2 N, 98-29-30.9 W
 Freq: 98.10000 MHz
 ERP: 33.00 W

Bearing	ERP W	HAAT	DH	Distance	Lat	Lon
0	33.00	28	140	4.25	29.456373	-98.491917
5	33.00	33	140	4.46	29.458038	-98.487905
10	33.00	34	130	4.52	29.458175	-98.483803
15	33.00	36	140	4.66	29.458570	-98.479466
20	33.00	37	140	4.72	29.458029	-98.475230
25	33.00	41	140	4.97	29.458623	-98.470219
30	33.00	38	100	4.79	29.455412	-98.467182
35	33.00	41	70	4.97	29.454726	-98.462470
40	33.00	40	40	4.91	29.451938	-98.459317
45	33.00	40	60	4.91	29.449334	-98.456055
50	33.00	44	60	5.17	29.448018	-98.450978
55	33.00	48	60	5.42	29.446086	-98.446025
60	33.00	51	50	5.59	29.443264	-98.441871
65	33.00	52	70	5.65	29.439585	-98.439012
70	33.00	56	50	5.85	29.436101	-98.435124
75	33.00	60	40	6.04	29.432161	-98.431655
80	33.00	62	40	6.15	29.427696	-98.429412
85	33.00	65	50	6.29	29.423024	-98.427242
90	33.00	67	50	6.38	29.418095	-98.426038
95	33.00	67	50	6.38	29.413094	-98.426292
100	33.00	69	50	6.47	29.407983	-98.426089
105	33.00	71	50	6.56	29.402822	-98.426487
110	33.00	76	70	6.78	29.397241	-98.426153
115	33.00	78	60	6.86	29.392004	-98.427697
120	33.00	80	40	6.95	29.386859	-98.429821
125	33.00	80	30	6.95	29.382264	-98.433185
130	33.00	80	30	6.95	29.377942	-98.436995
135	33.00	79	50	6.91	29.374186	-98.441522
140	33.00	81	50	6.99	29.369962	-98.445564
145	33.00	84	30	7.13	29.365557	-98.449698
150	33.00	88	30	7.31	29.361134	-98.454176
155	33.00	93	40	7.53	29.356692	-98.459059
160	33.00	98	40	7.74	29.352724	-98.464613
165	33.00	94	50	7.57	29.352307	-98.471688
170	33.00	90	60	7.40	29.352536	-98.478651
175	33.00	87	70	7.27	29.352970	-98.485378
180	33.00	89	90	7.36	29.351921	-98.491917
185	33.00	86	80	7.22	29.353374	-98.498415
190	33.00	84	80	7.13	29.354937	-98.504697
195	33.00	82	90	7.03	29.356999	-98.510704
200	33.00	80	60	6.95	29.359401	-98.516433
205	33.00	77	60	6.82	29.362497	-98.521671
210	33.00	77	50	6.82	29.364967	-98.527120
215	33.00	75	50	6.74	29.368483	-98.531786
220	33.00	75	50	6.74	29.371699	-98.536599
225	33.00	73	40	6.65	29.375821	-98.540437
230	33.00	70	40	6.52	29.380417	-98.543455
235	33.00	66	30	6.33	29.385429	-98.545467
240	33.00	62	40	6.15	29.390460	-98.546862
245	33.00	59	40	5.99	29.395334	-98.547952
250	33.00	57	60	5.90	29.399958	-98.549126
255	33.00	57	70	5.90	29.404370	-98.550725
260	33.00	54	80	5.76	29.409100	-98.550495
265	33.00	53	90	5.71	29.413624	-98.550630
270	33.00	51	80	5.59	29.418099	-98.549690
275	33.00	50	80	5.54	29.422440	-98.548886
280	33.00	47	90	5.37	29.426481	-98.546488
285	33.00	45	110	5.24	29.430306	-98.544217
290	33.00	41	120	4.97	29.433392	-98.540148
295	33.00	35	160	4.59	29.435552	-98.534879
300	33.00	31	180	4.32	29.437542	-98.530573
305	33.00	28	210	4.25	29.440053	-98.527907
310	33.00	25	200	4.25	29.442701	-98.525574
315	33.00	19	200	4.25	29.445163	-98.522985
320	33.00	14	270	4.25	29.447419	-98.520160
325	33.00	9	200	4.25	29.449451	-98.517119
330	33.00	12	160	4.25	29.451245	-98.513887
335	33.00	20	170	4.25	29.452787	-98.510487
340	33.00	26	170	4.25	29.454065	-98.506946
345	33.00	25	140	4.25	29.455069	-98.503290
350	33.00	25	160	4.25	29.455792	-98.499547
355	33.00	23	130	4.25	29.456228	-98.495747

R E C NETWORKS
CHANNEL REPORT

NAD27 LATITUDE: 29 - 25' 05.2" - LONGITUDE: 98 - 29' 30.9"
CHANNEL: 251 - CLASS: LI

CHAN	FREQ	CALL	LOCATION	CLS	DIST	REQ	CLEAR	BEAR
248	97.5	KFTX : QUALITY BROADCASTING CORPORATION	KINGSVILLE	TX C1	205.2	0.0	205.2	154.8
248	97.5		SAN CARLOS	CI C	238.1	92.0	146.1	260.0
248	97.5	KWTX-FM : CAPSTAR TX, LLC	WACO	TX C	241.2	0.0	241.2	27.6
249	97.7	KZAR : EDUCATIONAL MEDIA FOUNDATION	MCQUEENEY	TX C1	80.7	73.0	7.7	93.6
250	97.9	KQSA : CARLOS LOPEZ	BATESVILLE	TX A	111.2	56.0	55.2	245.5
250	97.9	KCJV-LP : HISPANIC HERITAGE RADIO NETWORK	LEON SPRINGS	TX L1	30.4	14.0	16.4	331.6
250	97.9	KYRT : LA PROMESA FOUNDATION	HUNT	TX A	107.2	56.0	51.2	319.2
250	97.9	KQSA : CARLOS LOPEZ	BATESVILLE	TX C3	111.2	67.0	44.2	245.5
251	98.1	KRRG : ENCARNACION A. GUERRA	LAREDO	TX C1	233.2	111.0	122.2	205.6
251	98.1		CAMP WOOD	TX C3	151.3	78.0	73.3	282.9
251	98.1	KVET-FM : CAPSTAR TX, LLC	AUSTIN	TX C1	120.6	111.0	9.6	33.4
251	98.1	KCTC-LP : OMEGA CHRISTIAN COMMUNICATIONS > Currently licensed station.	SAN ANTONIO	TX L1	3.2	24.0	-20.8	329.9
253	98.5	KBBT : UNIVISION RADIO STATIONS GROUP, INC.	SCHERTZ	TX C1	25.3	73.0	-47.7	297.6
254	98.7	KTXN-FM : BROADCAST EQUITIES TEXAS INC	VICTORIA	TX C1	154.5	0.0	154.5	115.5
254	98.7	KELI : TOWNSQUARE MEDIA	SAN ANGELO	TX C0	262.7	0.0	262.7	325.8
			SAN ANGELO LICENSE, LLC					

REQUEST FOR WAIVER OF §73.807(a)
SHORT-SPACED SECOND ADJACENT CHANNEL

KCTC-LP
San Antonio, TX
Channel 251LP100 (98.1 MHz)

The proposed LPFM station meets the §73.807 minimum distance separation requirements with the exception of KBBT(FM), Schertz, Texas. KBBT(FM) operates with 97 kW at 302 meters above average terrain into a non-directional antenna. KBBT(FM) places an 82.5 dBu service contour at the proposed LPFM site.

Using the U/D method¹, the proposed LPFM station is predicted to produce an undesired interference overlap in respect to KBBT(FM) to the proposed LPFM station's 122.5 dBu interference contour ("overlap zone"). At 37 watts ERP, the overlap zone extends to 32 meters from the radiation center.

The tower is directly adjacent to a 5-story structure. The highest occupied portion of the structure is 12 meters above ground level. As the antenna will be mounted at 72 meters above ground level and taking into consideration that the overlap zone only extends 32 meters from the radiation center, the interference will not reach this structure nor any other occupied location.

Based on these findings, we can conclude the proposed LPFM facility will not cause interference to listeners and prospective listeners of KBBT(FM). Therefore, the application requests a waiver of §73.807(a) in respect to KBBT(FM), Schertz, Texas.

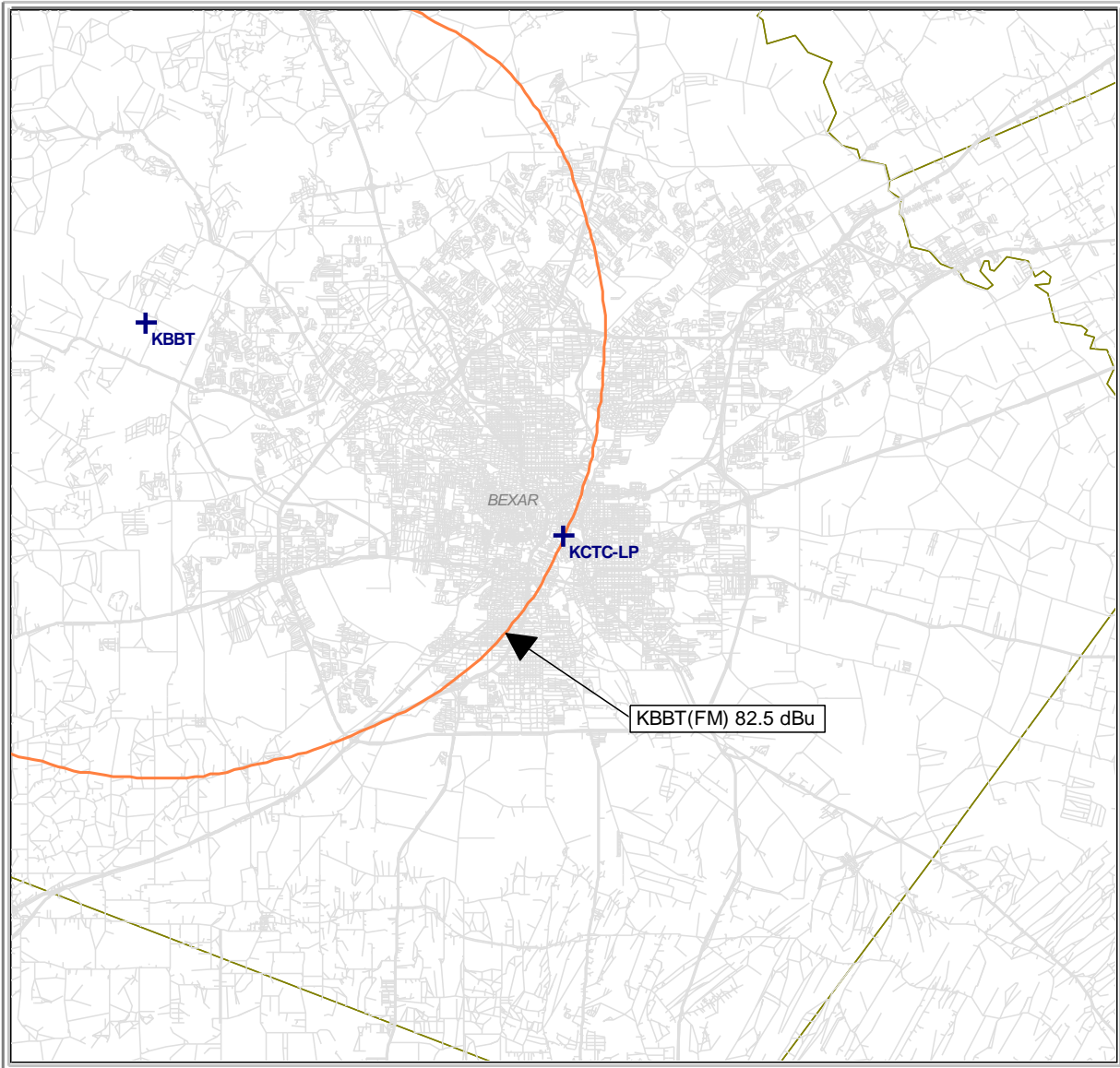
Prepared by,

Michelle Bradley, CBT
REC Networks

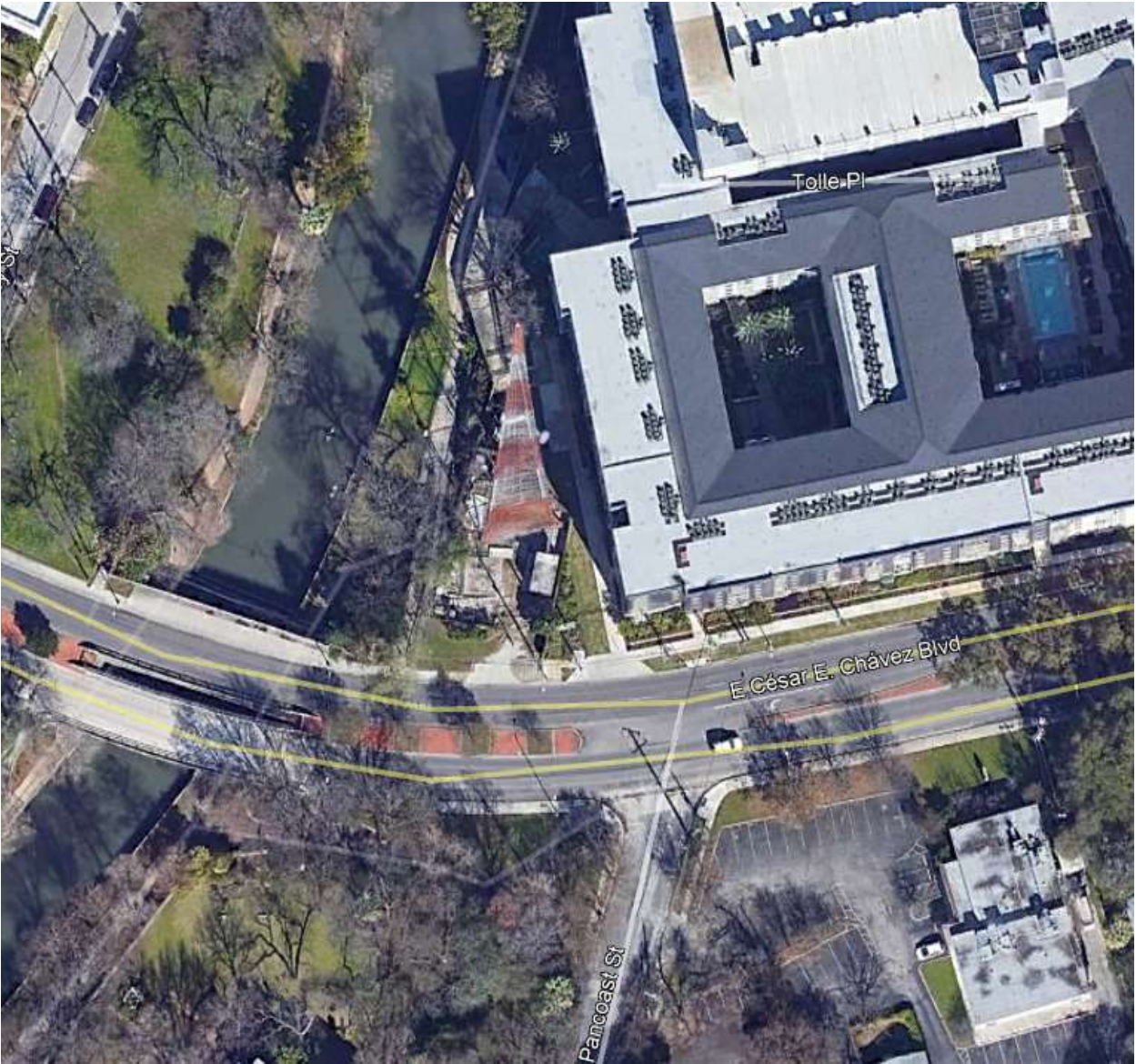
December 30, 2019

¹ See *Living Way Ministries, Inc.* Memorandum Opinion and Order, 17 FCC Rcd 17054, 17056 (2002) at 5. *Recon denied* 23 FCC Rcd 15070 (2008).

KCTC-LP Second Adjacent Channel







Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude 29° 25' 6" North

Longitude 98° 29' 32" West (NAD 83)

Height of antenna radiation center above mean sea level: **264 meters AMSL**

Number of Evenly Spaced Radials = **8** 0° is referenced to True North

Results

Calculated HAAT = **49 meters**

Antenna Height Above Average Terrain calculated
using 1 km [GLOBE terrain data](#)

Individual "Radial HAAT" Values, in meters

0°	15.0 m
45°	34.9 m
90°	58.7 m
135°	76.4 m
180°	86.4 m
225°	63.5 m
270°	41.3 m
315°	12.2 m