

APPLICATION FOR CONSTRUCTION PERMIT

PROPOSED NEW FM TRANSLATOR STATION
LONGVIEW, TEXAS
FACILITY ID: 156836
103.7 MHz / 0.250 kW ERP / ND

E-STRING WIRELESS, LTD.

AUGUST, 2013

APPLICATION FOR CONSTRUCTION PERMIT

The following engineering statement and attached exhibits have been prepared for **E-String Wireless, Ltd.** ("E-String"), applicant for a new FM translator station to serve Longview, Texas, and are in support of their application for construction permit.¹

This application is being submitted as the long-form application for the original short-form engineering proposal filed by E-String in 2003 during the Commission's Translator Auction 83 window. The original short-form was assigned FCC File No. BNPFT-20030317JNV. The proposal was assigned to MX Group 468. During the settlement window, E-String worked with one of the other applicants in the group on an engineering solution, and submitted a short-form amendment. The technical parameters proposed under this long-form application are identical to those specified in the settlement window short-form amendment.

The proposed facility would operate on channel 279 with an effective radiated power of 250 Watts at a center of radiation of 174.0 meters AMSL.² A non-directional antenna would be utilized. The changes proposed during the settlement window were minor in nature.

The primary station for the proposed facility would be NCE station KMSL(FM) at Mansfield, Louisiana.³ Exhibit E-1 illustrates the predicted 60 dBu service contour of the proposed facility along with the 60 dBu service contour of KMSL(FM).

¹ The Facility ID for the proposed translator facility is 156836.

² The average terrain for the proposed facility is defined by the 240 degrees true radial on which the average elevation is 85.7 meters AMSL. Terrain was sampled from the FCC 30-second terrain database.

³ The Facility ID for KMSL(FM) at Mansfield, Louisiana is 121791.

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415
221 S. 1st Avenue
Canton, IL 61520

Tel: 309.647.1200
Fax: 855.332.9537
jeremyruck.com

The proposed facility would not impact LPFM licensing opportunities within any of the Appendix A markets. The proposed facility is located outside the grid of the Tyler-Longview market, but within the grid buffer of this market. The Tyler-Longview market is a spectrum available market at the 20x20 grid. As a result, it is necessary and sufficient to demonstrate that the proposed facility would not impact LPFM licensing opportunities within the grid on channels 277 through 281. Exhibits E-2 through E-6 are individual maps for each of these channels, and contain the grid preclusion study for the channel of interest. The magenta shaded areas on each of the maps illustrate those areas within the region that are already precluded from LPFM operation by virtue of other facilities in the vicinity.

The proposed facility complies with the provisions of Section 74.1204 of the Commission's Rules. Exhibit E-7 is a tabular allocation study for the proposed facility. As this study demonstrates, the proposed facility would comply with all of the contour overlap requirements to all proposed and authorized facilities. This tabular study is graphically depicted in Exhibit E-7.

The proposed facility would not create a significant environmental impact, and is exempt from environmental processing. The facility would utilize an existing tower that is registered with the Commission. In addition, the facility would not constitute an RF exposure hazard to the general public.

The Commission's *FM Model* software package predicts a maximum power density at ground level of $0.741 \mu\text{W}/\text{cm}^2$ at a distance of 72 meters from the tower base. This value is low enough the proposed facility is categorically excluded. Millennium certifies that it will coordinate

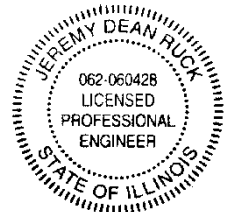
JEREMY RUCK & ASSOCIATES, INC.

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Fax: 855.332.9537
jeremyruck.com

with all other users of the site to ensure that workers and other personnel having access to the site are not exposed to levels of radiofrequency radiation in excess of the applicable safety standards. Such coordination will include, but is not necessarily limited to, a reduction in transmitter power or cessation of operation.

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature
License Expires November 30, 2013

Jeremy D. Ruck, PE
August 30, 2013

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415
221 S. 1st Avenue
Canton, IL 61520

Tel: 309.647.1200
Fax: 855.332.9537
jeremyruck.com

8.30.2013

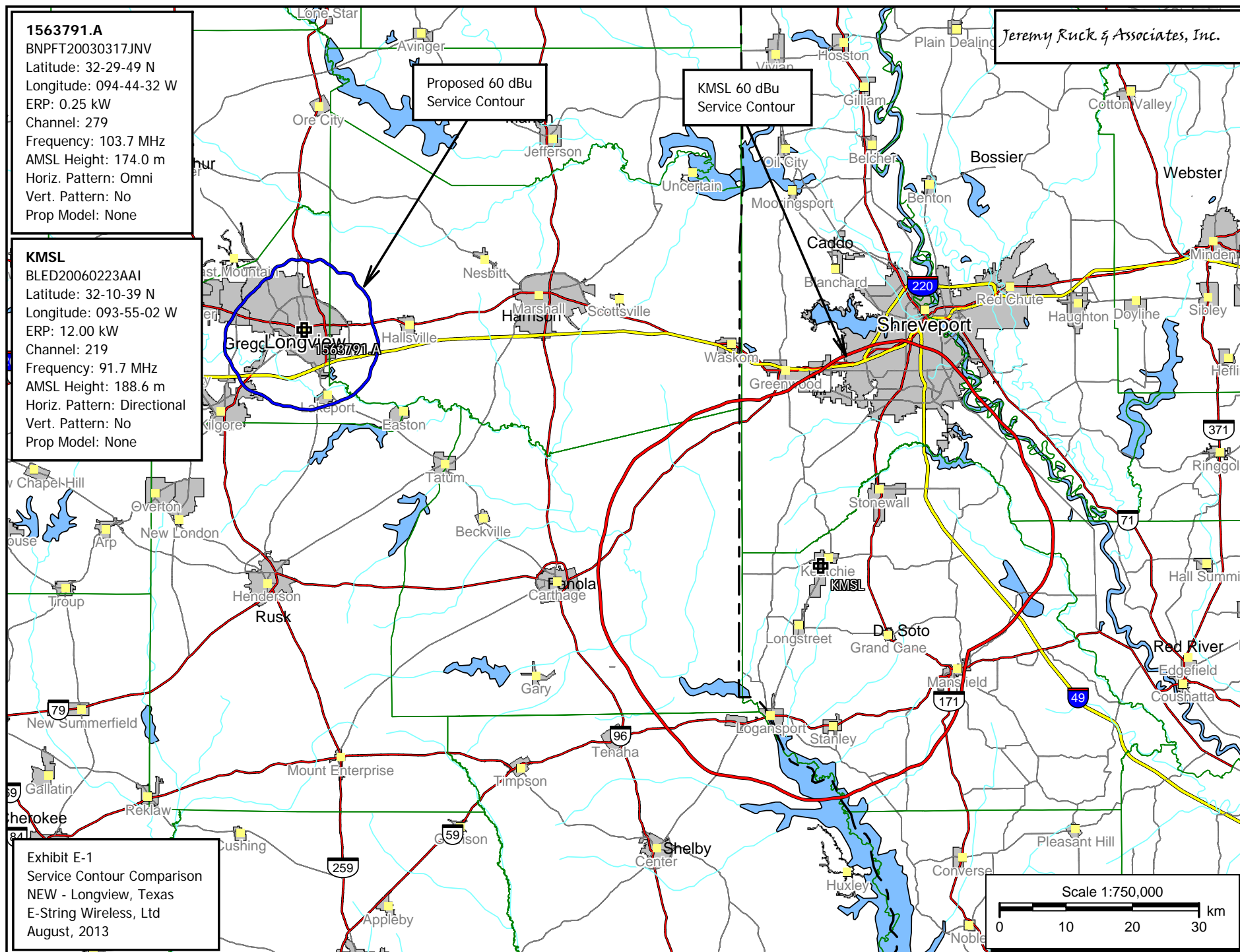
BNPFT20030317JNV
Latitude: 32-29-49 N
Longitude: 094-44-32 W
ERP: 0.25 kW
Channel: 279
Frequency: 103.7 MHz
AMSL Height: 174.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

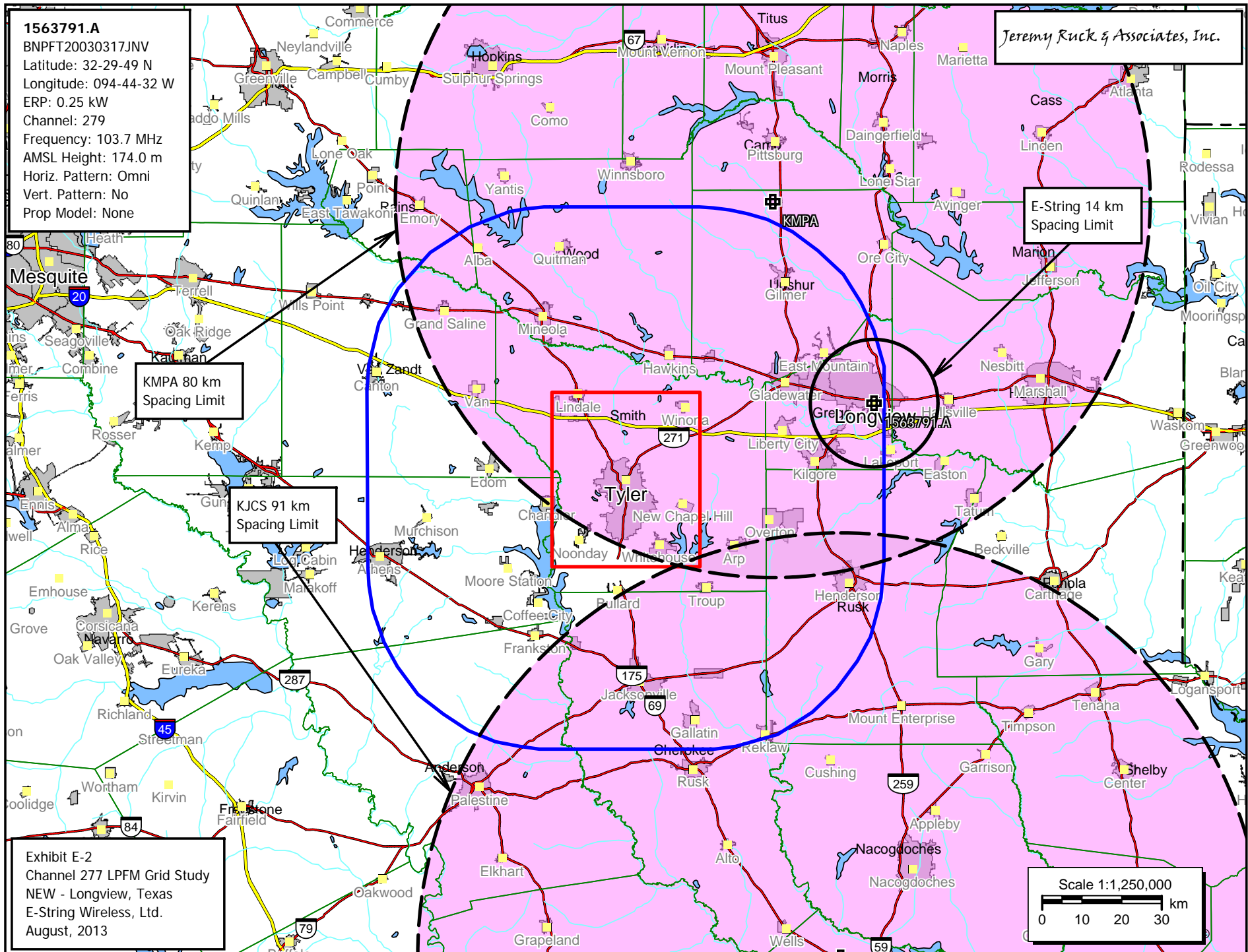
BLED20060223AAI
 Latitude: 32-10-39 N
 Longitude: 093-55-02 W
 ERP: 12.00 kW
 Channel: 219
 Frequency: 91.7 MHz
 AMSL Height: 188.6 m
 Horiz. Pattern: Directional
 Vert. Pattern: No
 Prop Model: None

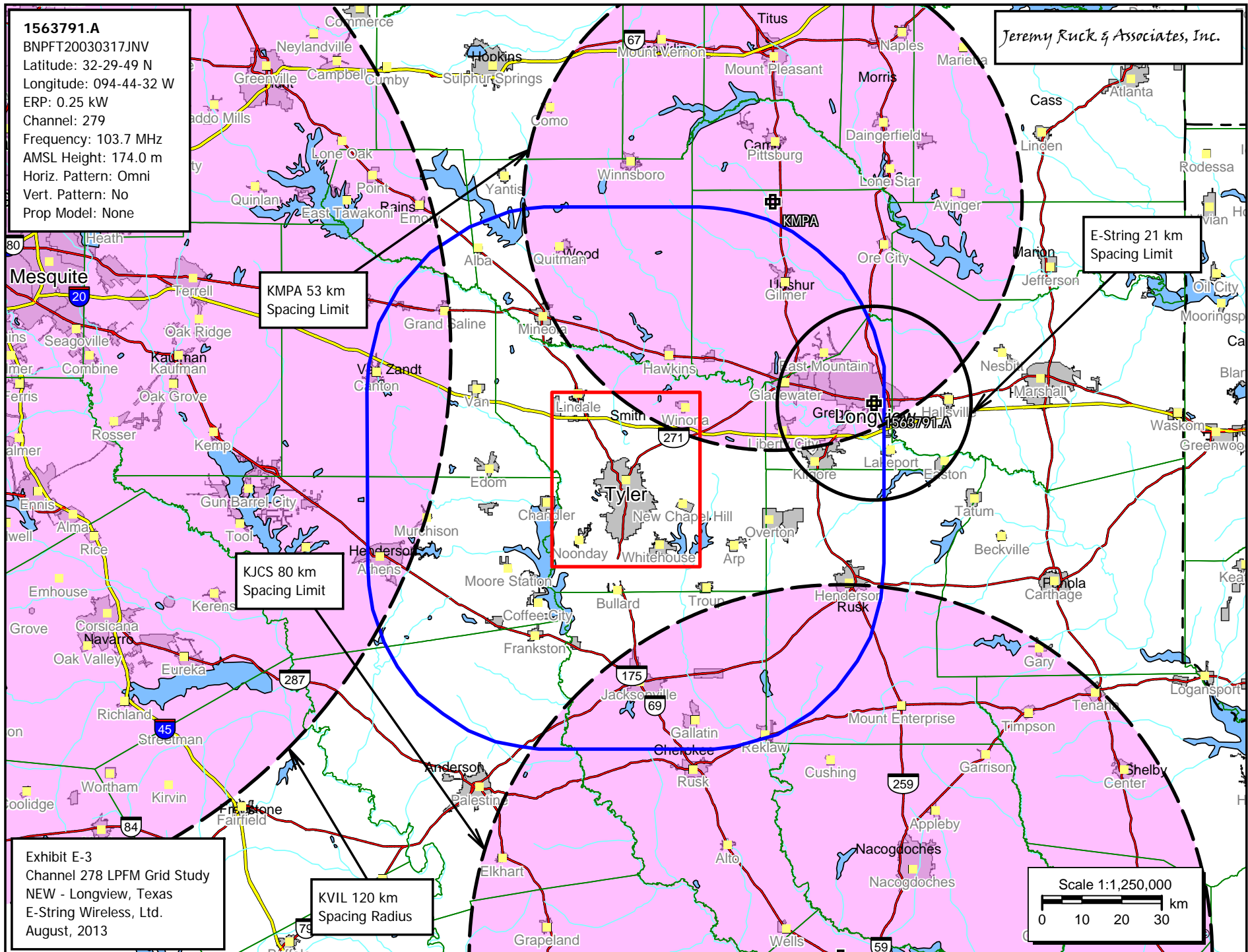
Exhibit E-1
Service Contour Comparison
NEW - Longview, Texas
E-String Wireless, Ltd
August, 2013

Proposed 60 dBu
Service Contour

KMSL 60 dBu
Service Contour







BNPFT20030317JNV
Latitude: 32-29-49 N
Longitude: 094-44-32 W
ERP: 0.25 kW
Channel: 279
Frequency: 103.7 MHz
AMSL Height: 174.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

Exhibit E-4
Channel 279 LPFM Grid Study
NEW - Longview, Texas
E-String Wireless, Ltd.
August, 2013

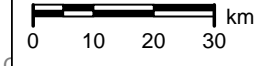
KKUS 53 km
Spacing Limit

Jeremy Ruck & Associates, Inc.

E-String 32 km
Spacing Radius

KMHT-FM 56 km
Spacing Radius

Scale 1:1,250,000



650130.X

BNPFT20030317JNV

Latitude: 32-29-48 N

Longitude: 094-44-32 W

ERP: 0.25 kW

Channel: 279

Frequency: 103.7 MHz

AMSL Height: 174.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

Jeremy Ruck & Associates, Inc.

Proposed Site

KKUS

Longview 650130.X

Scale 1:1,250,000

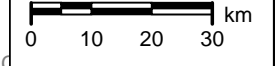


Exhibit E-5

Channel 280 LPFM Grid Study

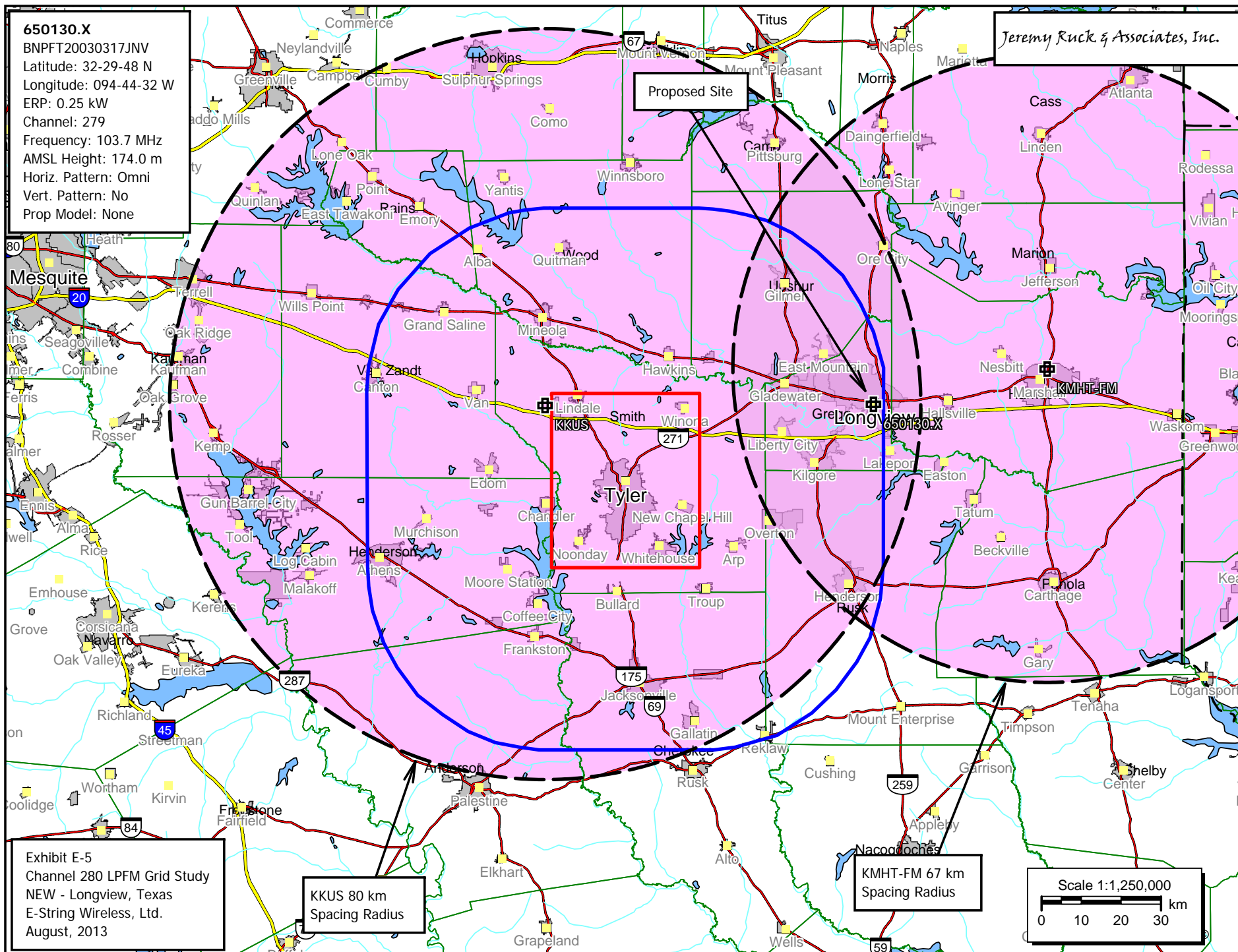
NEW - Longview, Texas

E-String Wireless, Ltd.

August, 2013

KKUS 80 km
Spacing Radius

KMHT-FM 67 km
Spacing Radius



1563791.A

BNPFT20030317JNV

Latitude: 32-29-49 N

Longitude: 094-44-32 W

ERP: 0.25 kW

Channel: 279

Frequency: 103.7 MHz

AMSL Height: 174.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

Jeremy Ruck & Associates, Inc.

Proposed Site

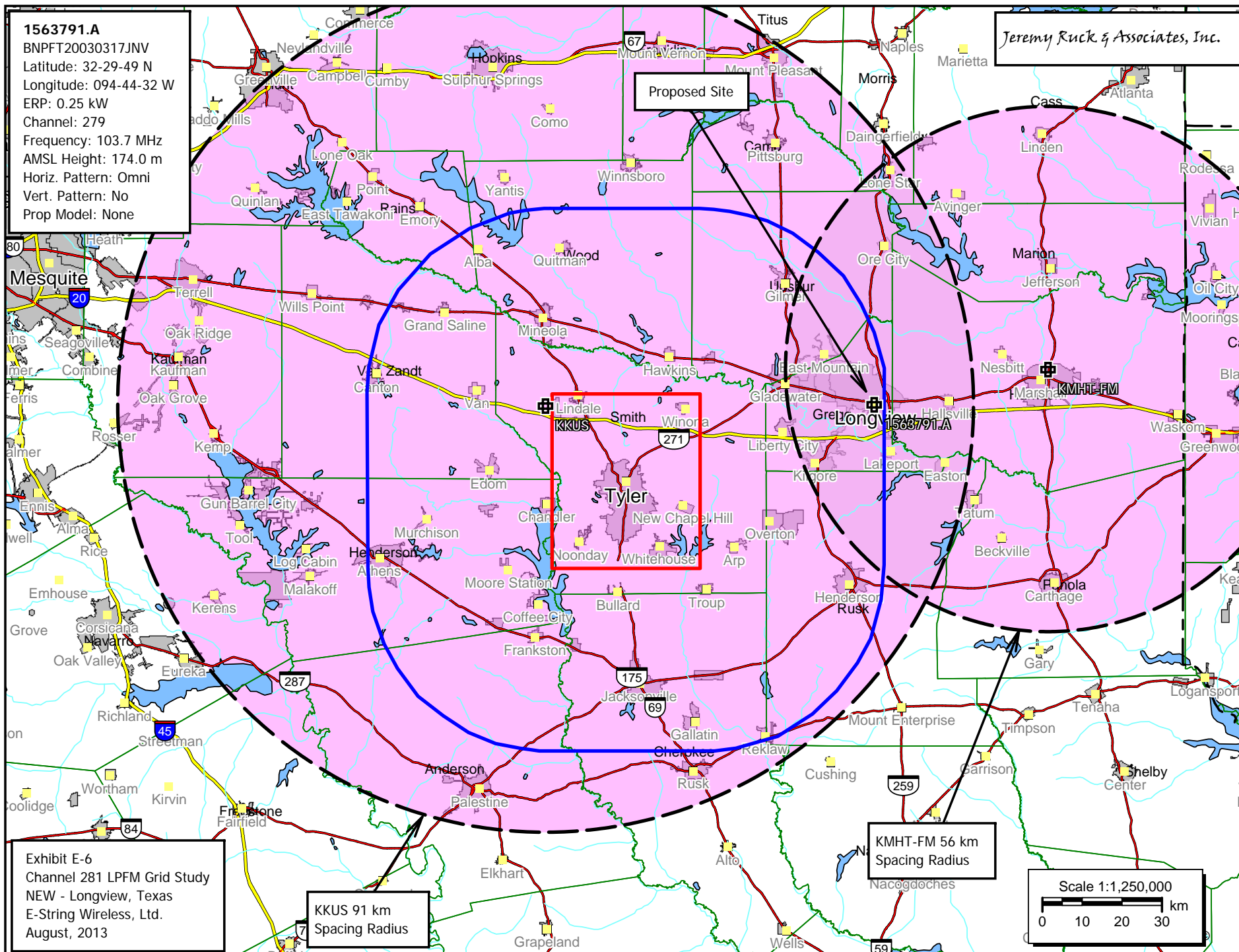


Exhibit E-6
Channel 281 LPFM Grid Study
NEW - Longview, Texas
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August, 2013

KKUS 91 km
Spacing Radius

KMHT-FM 56 km
Spacing Radius

Scale 1:1,250,000
0 10 20 30 km

Jeremy Ruck & Associates, Inc.
Consulting Engineers - Canton, Illinois

Exhibit E-7 - Tabular Allocation Study

REFERENCE 32 29 49.0 N. CH# 279D - 103.7 MHz, Pwr= 0.25 kW, HAAT= 0.0 M, COR= 174 M DISPLAY DATES
94 44 32.0 W. Average Protected F(50-50)= 7.09 km DATA 08-30-13
Omni-directional SEARCH 08-30-13

CH CITY	CALL	TYPE STATE	ANT TX	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
279D Longview	1563791	APP _C_	TX	0.0 0.0	0.00 BNPFT20030317JNV	32 29 49.0 94 44 32.0	0.250 174	35.5	10.5	-46.0*	-46.0*
279A Mount Enterprise	AL0976	VAC _	TX	174.6 354.6	58.75 RM11494	31 58 15.0 94 41 01.0	6.000 100	84.0 231	26.1	-37.2*	-8.8
280A Marshall	KMHT-FM	LIC _CX	TX	78.4 258.6	37.40 BMLH20100514AJJ	32 33 50.0 94 21 04.0	1.850 129	33.7 227	21.7	-6.5	0.1
276C2 Pittsburg	KMPA	LIC _NCX	TX	333.5 153.4	47.69 BLH20030623AHD	32 52 50.0 94 58 13.0	10.000 205	4.5 320	45.2	32.8	1.4
279D Carthage	1562946	APP _C_	TX	133.7 314.0	54.90 BNPFT20030317JJI	32 09 17.0 94 19 15.0	0.250 135	28.8	8.6	14.0	4.4
279C Highland Park-dalla	KVIL	LIC _CY	TX	273.4 92.2	208.85 BLH19990216KB	32 35 19.0 96 58 05.0	100.000 507	190.3 698	86.4	6.7	82.7
280D Henderson	K280FH	LIC _C_	TX	190.0 9.9	35.21 BLFT20100804AAS	32 11 06.0 94 48 25.0	0.099 228	15.9	11.0	7.5	7.1
279A Haughton	KBTT	LIC _CN	LA	86.4 267.0	108.91 BLH19930308KE	32 33 11.0 93 34 56.0	6.000 100	88.3 157	29.5	9.7	44.1
278C2 New Boston	KZRB	LIC _CN	TX	5.5 185.6	102.54 BLH19961216KA	33 24 54.0 94 38 10.0	50.000 150	81.0 252	54.6	10.8	33.1
226C1 Tyler	KTYL-FM	LIC _NC_	TX	216.6 36.5	32.83 BLH19980612KC	32 15 35.0 94 57 02.0	82.000 286	12.0 420	82.5	21.5R	11.3M
281C2 Tyler	KKUS	LIC _CN	TX	270.0 89.6	69.36 BLH19900515KE	32 29 40.0 95 28 55.0	50.000 150	6.0 290	51.9	51.5	16.0
282A Carthage	KGAS-FM	LIC _CN	TX	143.0 323.2	49.26 BLH19920918KF	32 08 33.0 94 25 39.0	6.000 100	2.7 191	27.8	34.3	20.3

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
***affixed to 'IN' or 'OUT' values = site inside protected contour.

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Vert. Pattern: No
Prop Model: None





-  60 dBu F(50,50) Service Contour
-  40 dBu F(50,10) Interference Contour
-  54 dBu F(50,10) Interference Contour
-  100 dBu F(50,10) Interference Contour

Exhibit E-8
Graphical Allocation Study
NEW - Longview, Texas
E-String Wireless, Ltd
August, 2013

Scale 1:750,000