APPLICATION FOR CONSTRUCTION PERMIT

PROPOSED NEW FM TRANSLATOR STATION
WATERLOO, IOWA
FACILITY ID: 156471
106.9 MHz / 0.250 kW ERP / ND

E-STRING WIRELESS, LTD.

AUGUST, 2013

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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

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 Waterloo, Iowa, and are in support of their amendment to application for construction permit.[1]

This application is being filed as the long-form application for the original short-form engineering proposal submitted during the Commission's 2003 Translator Auction 83 window. The original short-form proposal was assigned FCC File No. BNPFT-20030317HOM. Following the close of the window, the short-form proposal was found to be mutually exclusive with several other applications in the region.

During the settlement window, E-String amended the short-form proposal to extricate its application from the MX group. Under this amendment, E-String proposed a change in the site location and a change in the channel of operation. The changes proposed were minor in nature, and the technical parameters proposed under this long-form application are identical to those proposed in the settlement amendment.

The proposed facility would operate on channel 295 with an effective radiated power of 250 Watts at a center of radiation of 354 meters AMSL.[2] A non-directional antenna is proposed for use by the facility. The proposed primary station for the translator is KWVI(FM) at Waverly, Iowa.[3] Exhibit E-1 illustrates the predicted 60 dBu service contour of the proposed translator along with

[1] The Facility ID for the proposed translator facility is 156471.
[2] The average terrain for the proposed facility is determined by the 180 degree true radial on which the average elevation is 257.0 meters AMSL. Terrain was sampled from the FCC 30-second terrain database.
[3] The Facility ID for KWVI(FM) at Waverly, Iowa is 84063.

the 60 dBu service contour of KWVI(FM). E-String has obtained consent to translate KWVI(FM) from American Family Association, the licensee of that NCE facility.

The proposed facility would not preclude LPFM licensing opportunities within any of the Appendix A markets. The closest two Appendix A markets to the proposed facility are the Des Moines and Quad Cities markets. Exhibit E-2 demonstrates that the proposed site location is outside the grid buffer of both markets.

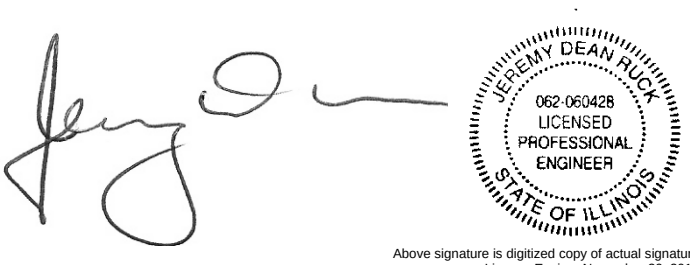
The proposed facility would comply with the provisions of Section 74.1204 of the Commission's Rules. Exhibit E-3 is a tabular allocation study for the proposed facility. This study demonstrates that the proposed facility would meet the contour overlap requirements to all authorized and proposed facilities with the exception of BNPFT-20030311AMV at Waterloo, Iowa. This tabular study is graphically depicted in Exhibit E-4.

Although normally prohibited contour overlap between the proposed facility and the Starboard Media Foundation application under BNPFT-20030311AMV would exist, no interference would occur between that facility and the proposed facility. These two translators would be co-located on the same registered tower. Both applications specify identical values for the effective radiated power, and differ only slightly in vertical elevation. Since there is a 1:1 ratio between the effective radiated power of the two facilities, no condition exists in any region where the ratio of the field strength between the two facilities would approach, let alone exceed, 40 dB. As a result, no interference is predicted to occur to either facility.

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 0.724 $\mu W/cm^2$ at a distance of 72 meters from the base of the tower. This value is sufficiently low to categorically exclude the proposed facility. E-String certifies that it will coordinate 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 28, 2013

JEREMY RUCK & ASSOCIATES, INC.
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221 S. 1st Avenue
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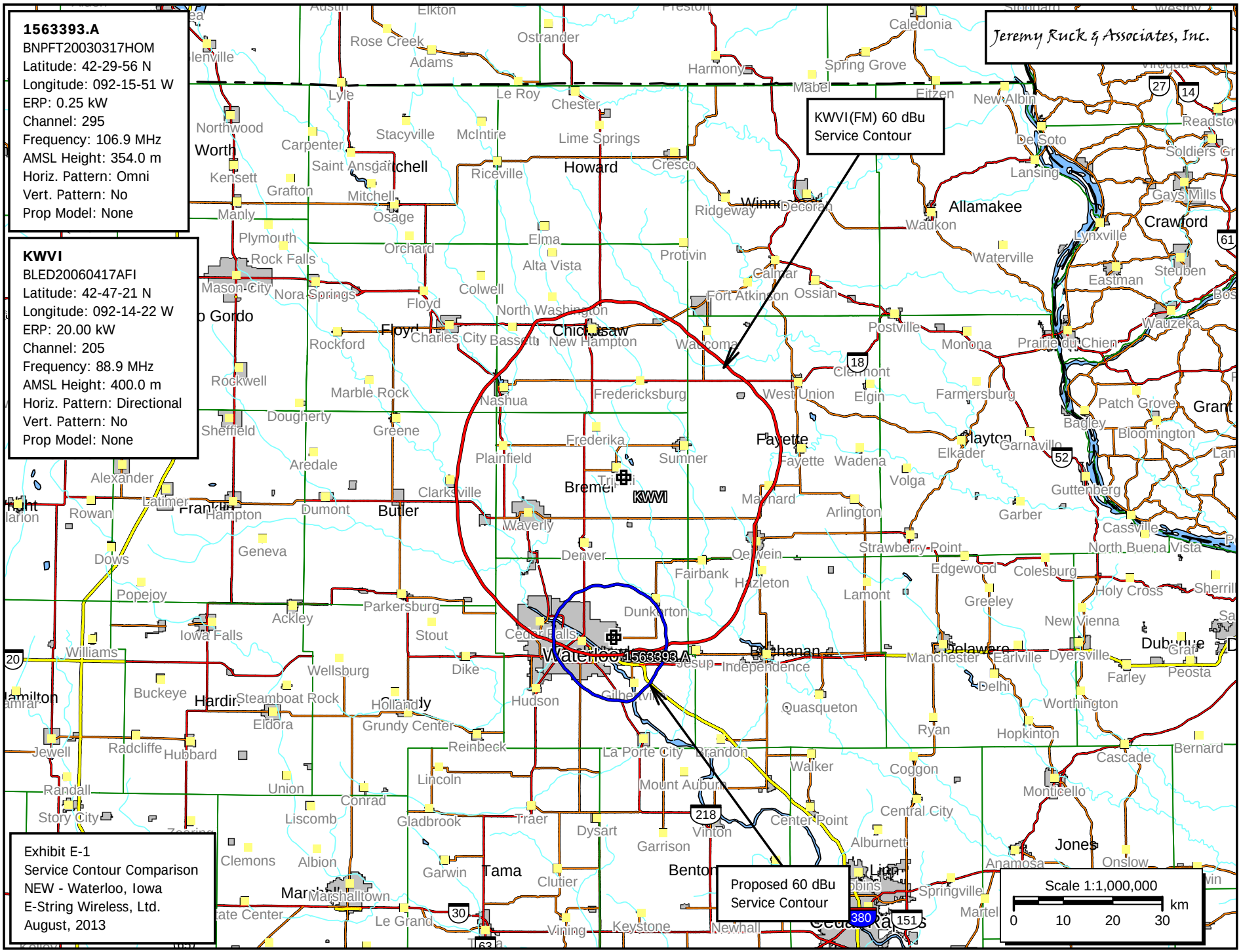
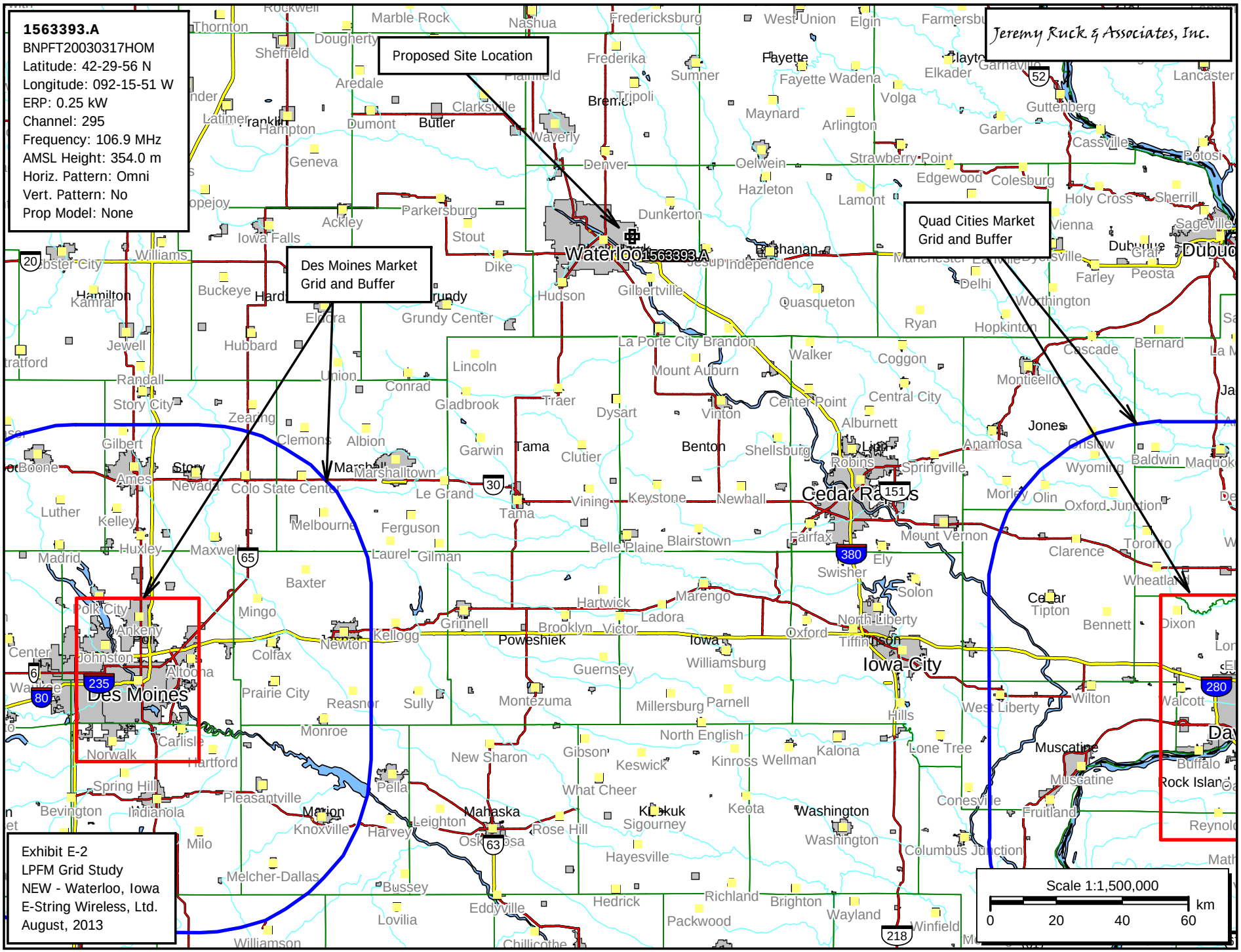

1563393.A
BNPFT20030317HOM
Latitude: 42-29-56 N
Longitude: 092-15-51 W
ERP: 0.25 kW
Channel: 295
Frequency: 106.9 MHz
AMSL Height: 354.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
KWVI
BLED20060417AFI
Latitude: 42-47-21 N
Longitude: 092-14-22 W
ERP: 20.00 kW
Channel: 205
Frequency: 88.9 MHz
AMSL Height: 400.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
Jeremy Ruck & Associates, Inc.
KWVI(FM) 60 dBu
Service Contour
Proposed 60 dBu
Service Contour
KWVI
1563393.A
Exhibit E-1
Service Contour Comparison
NEW - Waterloo, Iowa
E-String Wireless, Ltd.
August, 2013
Scale 1:1,000,000
0 10 20 30 km


1563393.A
BNPFT20030317HOM
Latitude: 42-29-56 N
Longitude: 092-15-51 W
ERP: 0.25 kW
Channel: 295
Frequency: 106.9 MHz
AMSL Height: 354.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
Proposed Site Location
Des Moines Market Grid and Buffer
Quad Cities Market Grid and Buffer
Jeremy Ruck & Associates, Inc.
Waterloo 1563393.A
Des Moines
Cedar Rapids
Iowa City
Exhibit E-2
LPFM Grid Study
NEW - Waterloo, Iowa
E-String Wireless, Ltd.
August, 2013
Scale 1:1,500,000
0 20 40 60 km

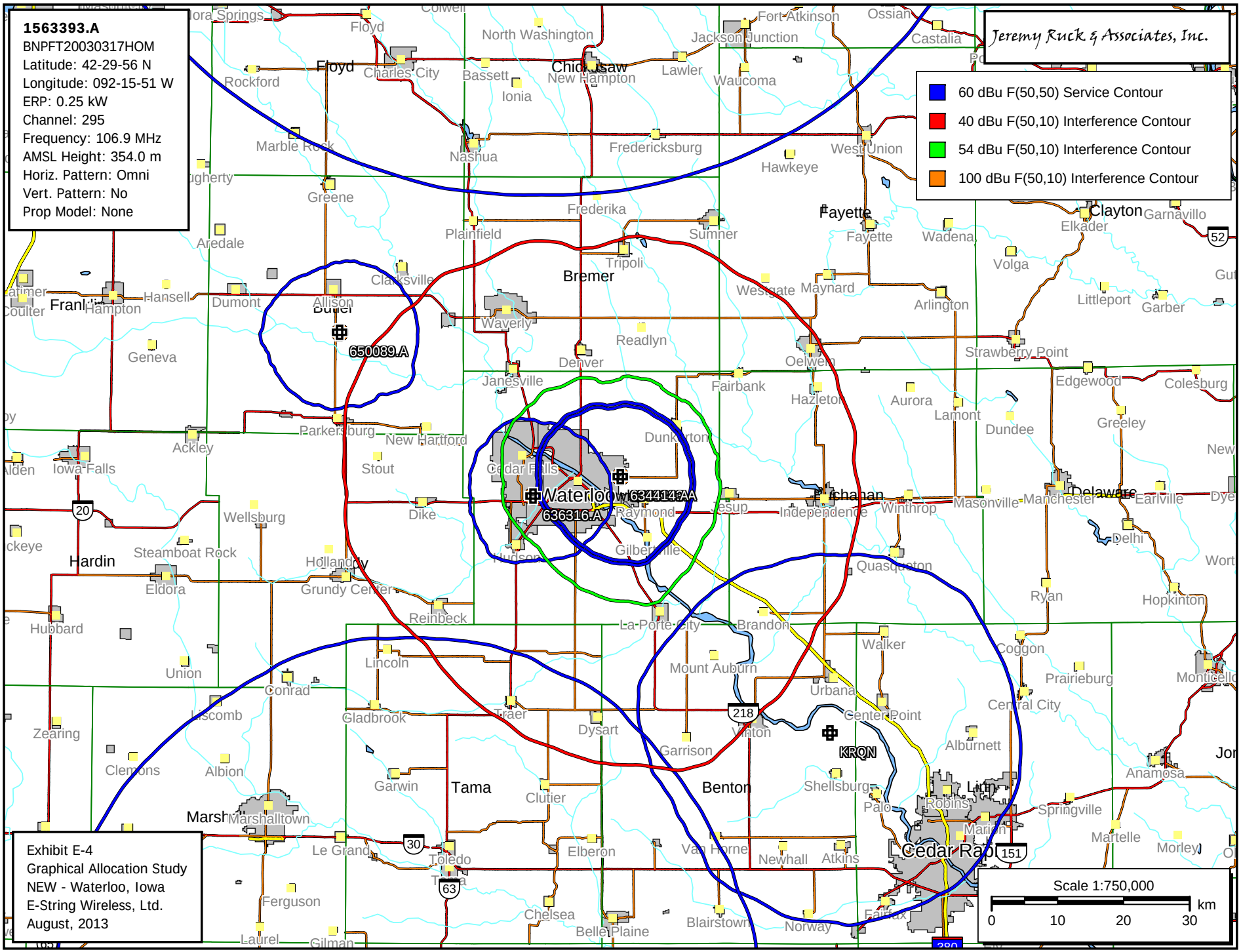
Jeremy Ruck & Associates, Inc.
Consulting Engineers - Canton, Illinois

Exhibit E-3 - Tabular Allocation Study
NEW - Waterloo, Iowa

REFERENCE CH# 295D - 106.9 MHz, Pwr= 0.25 kW, HAAT= 0.0 M, COR= 354 M DISPLAY DATES
42 29 56.0 N. Average Protected F(50-50)= 7.09 km DATA 08-28-13
92 15 51.0 W. Omni-directional SEARCH 08-28-13

CH CALL / CITY	TYPE ANT / STATE	AZI <--	DIST / FILE #	LAT / LNG	PWR(kW) / HAAT(M)	INT(km) / COR(M)	PRO(km) / LICENSEE	*IN* (Overlap in km)	*OUT*
295C0 KROC-FM	LIC _CN	353.7	119.91	43 34 15.0	100.000	178.9	76.7	-69.8*	7.3
Rochester	MN	173.6	BLH7076	92 25 37.0	338	755	Cumulus Licensing Llc		
295D 1563393	APP _C_	0.0	0.00	42 29 56.0	0.250	35.9	10.6	-46.5*	-46.5*
Waterloo	IA	0.0	BNPFT20030317HOM	92 15 51.0		354	E-string Wireless, Ltd		
293D 634414	APP _C_	270.0	0.02	42 29 56.0	0.250	1.1	11.1	-13.3*	-12.2*
Waterloo	IA	90.0	BNPFT20030311AMV	92 15 52.0	86	362	Starboard Media Foundation		
294C2 KRTI	LIC _CN	203.5	84.11	41 48 16.0	50.000	79.3	53.4	-7.4	13.1
Grinnell	IA	23.2	BLH19930601KB	92 40 09.0	150	443	Newton License Co, Llc		
296A KRQN	LIC _CX	140.9	50.08	42 08 56.0	4.700	42.9	27.8	-4.7	4.9
Vinton	IA	321.1	BMLH20051025ABI	91 52 50.0	113	366	George S. Flinn, Jr.		
293D 636316	APP _C_	257.4	13.51	42 28 20.0	0.250	1.1	11.9	0.1	0.5
Waterloo	IA	77.3	BNPFT20030313AJP	92 25 30.0	69	347	Friendship Communications,		
293D 650089	APP _C_	297.3	47.67	42 41 39.0	0.250	1.1	12.6	34.2	33.6
Parkersburg	IA	116.9	BNPFT20030317LKR	92 46 58.0	78	376	Family Stations, Inc.		

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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Channel: 295
Frequency: 106.9 MHz
AMSL Height: 354.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
Jeremy Ruck & Associates, Inc.
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
650089.A
636316.A
634414AA
KRQN
Waterloo
Cedar Falls
Bremer
Benton
Tama
Marshall
Fayette
Clayton
Exhibit E-4
Graphical Allocation Study
NEW - Waterloo, Iowa
E-String Wireless, Ltd.
August, 2013
Scale 1:750,000
0 10 20 30 km