

CITY OF LICENSE
CALL LETTERS
FACILITY ID
PREPARED FOR
VERSION
JOB

Dallas, OR
KTUP
184143
Mano a Mano Family Center
1.0
117022B

CONSOLIDATED

ENGINEERING EXHIBIT

FCC Form 340 - Section VII - FM Engineering

BROWN BROADCAST SERVICES
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

ENGINEERING STATEMENT
PROPOSED MINOR-MODIFICATION
TO CONSTRUCTION PERMIT BNPED-20100225ADD
KTUP (FM), Dallas, OR
98.3MHz - 2.6kW ERP - ND
Mano a Mano Family Center

SUMMARY

Mano a Mano Family Center (Mano) hereby proposes a minor-modification of the original Construction Permit of KTUP, Dallas, OR. Mano would remain at the same tower location, but proposes a change in antenna height, HAAT, and ERP.

TIME SHARE

Mano was granted a time-shared CP, along with Capital Community Television, Inc. (CCTV - KMWV). Both parties will share a single transmission facility. CCTV is concurrently filing a proposed minor-modification, to specify this shared facility.

307(b) FAIR DISTRIBUTION OF SERVICE

KTUP is an NCE permittee on a “commercial” channel granted via the Third Channel Reservation Standard, in the 2010 Filing Window. As shown by **Exhibits E-1 and E-1a**, this proposal easily meets the baseline requirements for the Channel Reservation in that more than 10% of the total population to be served would continue to receive first or second NCE service, and that this population exceeds 2000 persons (2010 census).

KTUP was not granted on the basis of superior technical facilities.

COMMUNITY COVERAGE

Exhibit 16 shows that the entire community of license is within the proposed 70dBu contour.

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EXPEDITED PROCESSING IS REQUESTED

Mano is ready to construct immediately, upon approval. The CP expires on November 18, 2019, but to meet crew and programming schedules, Mano must construct very soon. Expedited processing is requested.

EXHIBIT E1

CONTINUED COMPLIANCE WITH THIRD RESERVATION STANDARD

This application complies with the Third Reservation Standard, in that it would provide first or second NCE service to at least 2000 persons, and to at least 10% of the total 60dBu population to be served.¹

Total Population - 60dBu Service	535,053
First NCE Service	7,104
First NCE Service %	1.3%
Second NCE Service	183,002
Second NCE Service %	34.2%
Combined 1 st + 2 nd NCE Service	190,106
Combined 1 st + 2 nd NCE Service %	35.5%

¹2010 Census, Block Data. Based on standard methods from §73.313(c)

EXHIBIT E1a

FAIR DISTRIBUTION OF SERVICE - MAP (Third Reservation Standard)

KTUP, Dallas, OR

Green = First Service
Blue = 2nd Service
Red = 3rd or Greater Service

Station List:

1. KBOO, Portland OR
2. KSLC, McMinnville OR
3. KOPB-FM, Portland OR
4. KLCO, Florence OR
5. KWBX, Salem OR
6. KMUZ, Turner OR
7. KMUZ, Turner OR
8. KAJC, Salem OR
9. KBVR, Corvallis OR
10. KLCC, Eugene OR
11. KWAX, Eugene OR

First NCE Service	7,104	1.3%
First+Second Service	190,106	35.5%
(2010 Census)		

Additional gray contours:

Stations not defining 1st or 2nd Service areas.

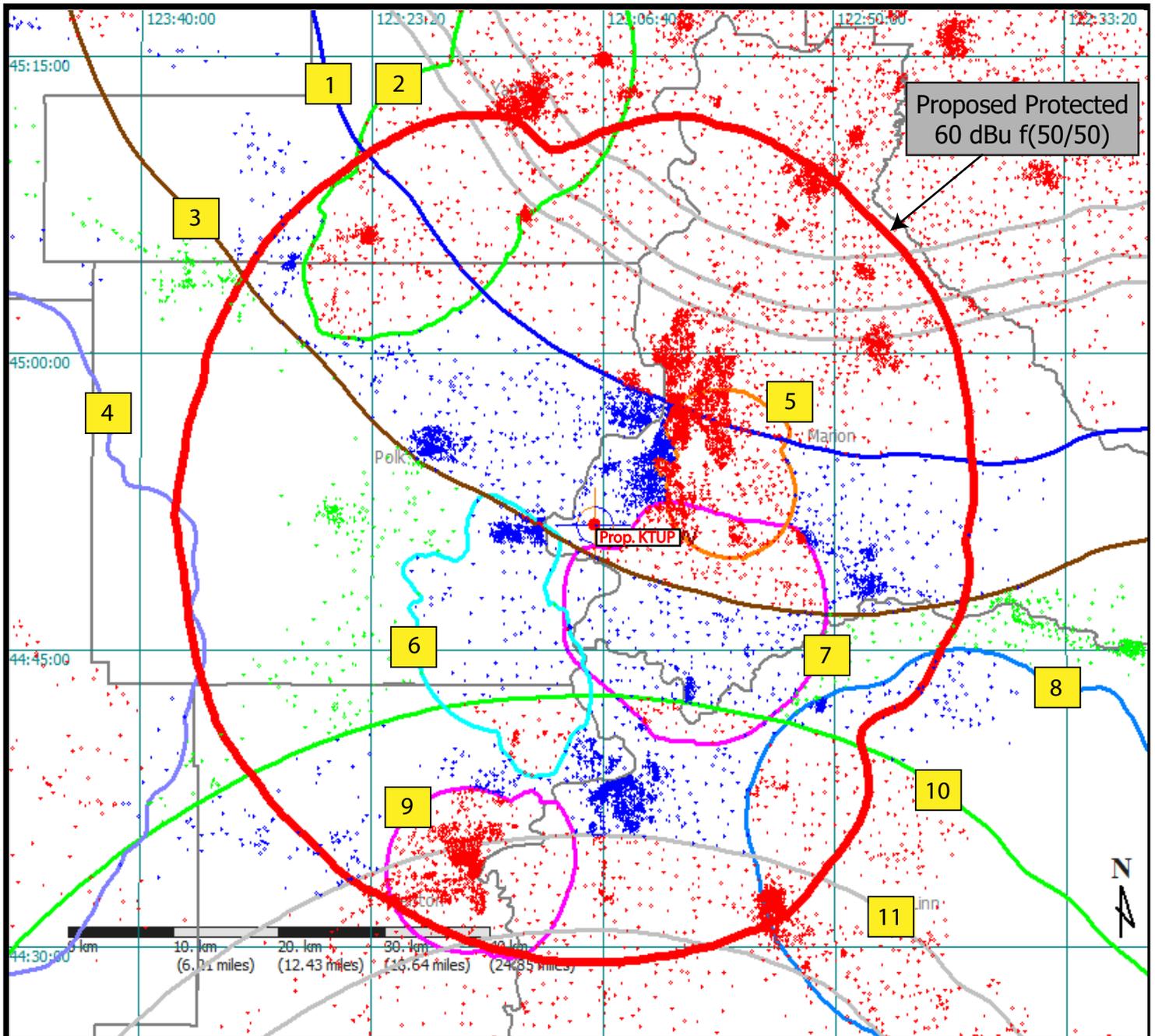


Exhibit 16 Community Coverage Contour

Brown Broadcast Services, Inc.
Lat: N44:51:18 Lon: W123:07:15 NAD-27
Scale: 1:500000
Channel: 252 Class: C3

rfInvestigator Version 3.8.16
by rfSoftware, Inc.
Date: 8/4/2019
Key:
City Grade
Protected

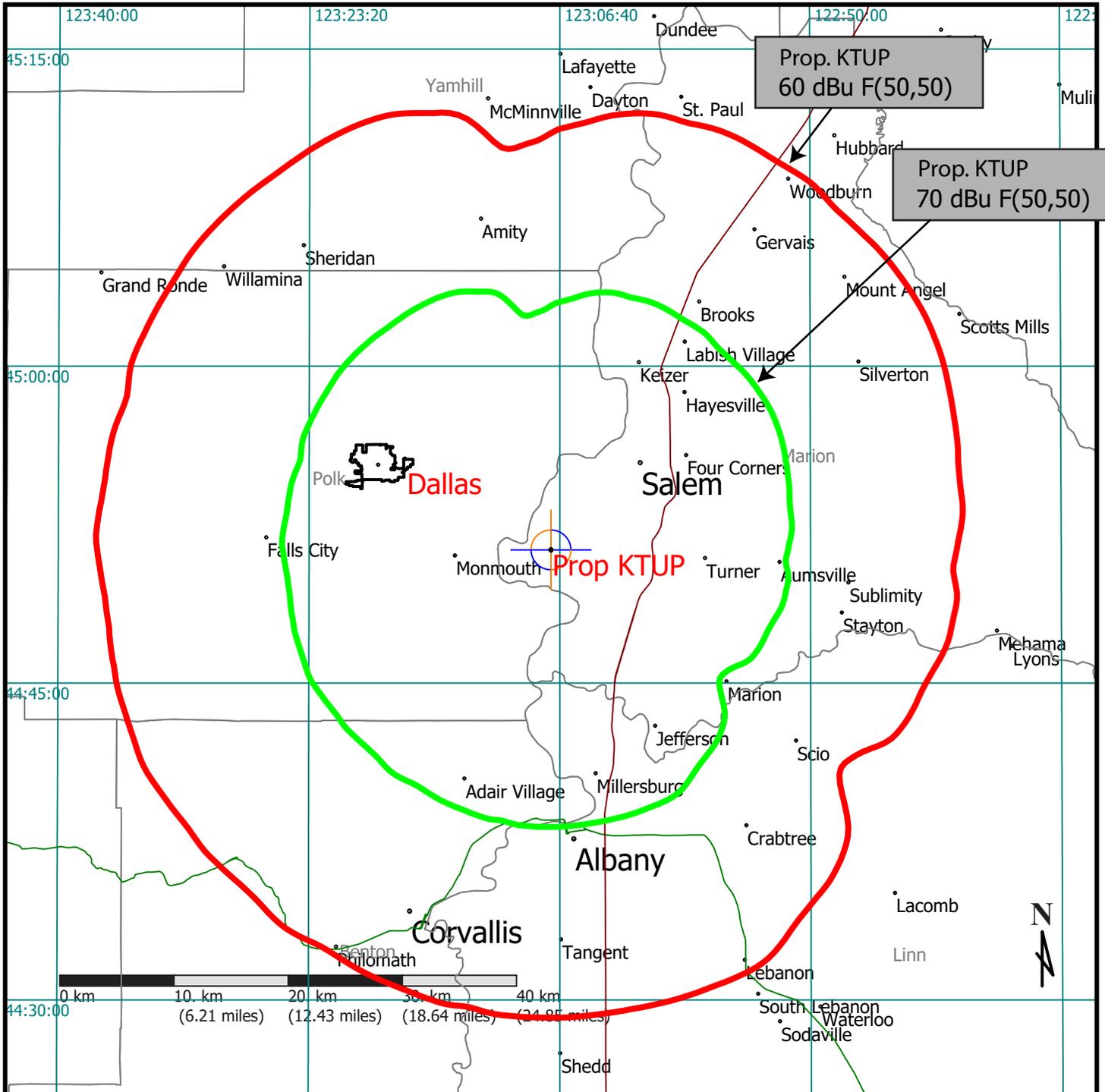


EXHIBIT 18 SPACING REQUIREMENTS

CHANNEL STUDY

KTUP ant height change
Mano a Mano Community Center

REFERENCE	CLASS = C3	DI SPLAY DATES
44 51 18.0 N.	Current	DATA 08-01-19
123 07 15.0 W.	Spacings to 3rd Adj.	SEARCH 08-02-19
----- Channel 252 - 98.3 MHz -----		

Call	Channel	Location	Azi	Dist	FCC	Margin
KTUP	CP 252C3	Dallas	OR 0.0	0.00	153.0	-153.0*
KMWV	CP 252C3	Dallas	OR 0.0	0.00	153.0	-153.0*
KTWS	LIC-N 252C2	Bend	OR 120.7	166.48	177.0	-10.5**
KLVP	LIC 250C1	Aloha	OR 25.2	78.01	76.0	2.0
KUPL	LIC 254C1	Portland	OR 22.3	79.55	76.0	3.6
KPPK	LIC 252A	Rainier	OR 4.9	148.14	142.0	6.1
KEQB	LIC-N 249C3	Coburg	OR 179.6	94.79	43.0	51.8

*Time-share partners
**73.215 station established after Dallas applications were filed

KTWS MATTERS

KTWS, Bend, Oregon, applied for and was subsequently granted a short-spaced facility in 2016. KTUP was initially filed in the 2010 NCE Filing Window. KTWS used \$73.215 to show lack of overlap with the KTUP and KMWV applications.

No change of location is proposed herein - only a change in antenna height. As such, no new demonstration of contour protection to KTWS is required.

PROTECTED ZONES REPORT

Protected zones report for KTUP on channel 252C3 08-04-2019
Lat. 44 51 18.0 Lng. 123 07 15.0, ERP= 2.6 kw, HAAT= 301.4 m

Facility is okay with respect to Canada. Distance = 375.6 km.

Facility is okay with respect to AM station towers.

Closest AM Facility is KBZY, SALEM, OR, L, ND2 at 74.5° at a distance of 11.1 km
Facility is okay with respect to FCC monitoring stations.

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EXHIBIT 24

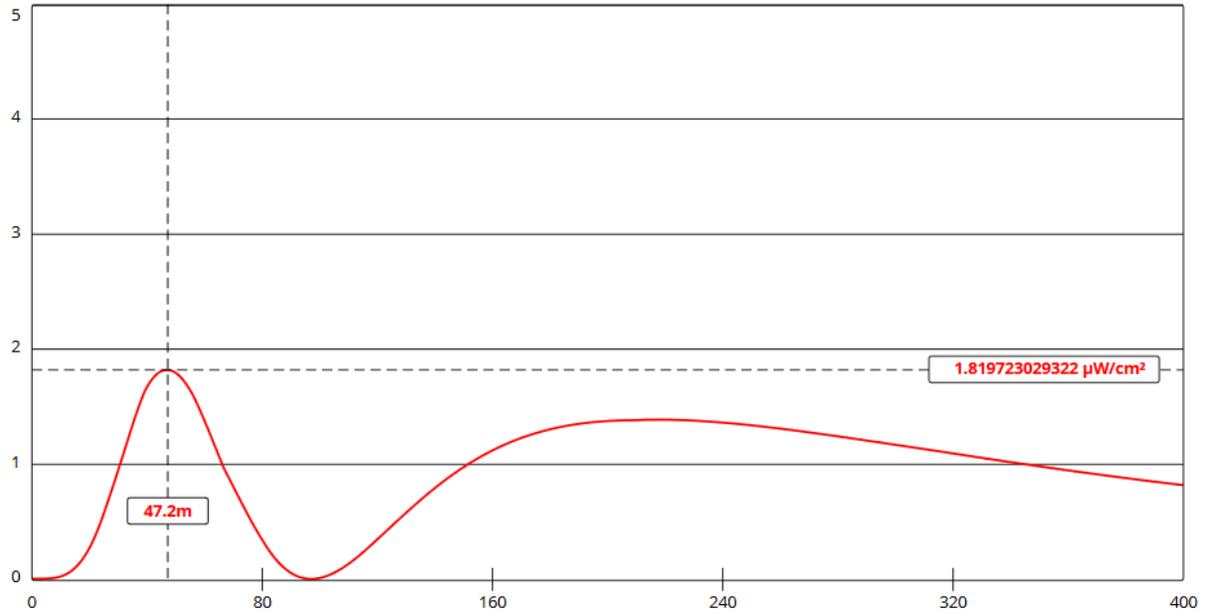
ENVIRONMENTAL PROTECTION ACT / NIER ANALYSIS

The applicant proposes mounting a new 4 bay, 0.5 wave-spaced Shively 6822-4-SS “Double-V” type antenna on an existing 98 meter tower. The proposed center of radiation is 58m AGL. This model is not specifically listed in Appendix B¹, so the “EPA Type 1” setting was employed in FM Model (Online Version). FM Model predicted a peak exposure of 1.8 μ W/cm², at 47.2m from the tower base.

The tower sits on a high ridgeline, with no inhabited buildings or higher terrain nearby. Public access to the entire area is controlled by perimeter fencing and locked gates. The applicant believes that the site can be considered an Occupational/Controlled area. However, out of an abundance of caution, it will be examined for compliance using the standards for General Population/Uncontrolled areas. 1.8 μ W/cm² represents 0.9% of the 200 μ W/cm² Maximum Permitted Exposure for Uncontrolled areas. §1.1307(b)(3) exempts applicants from preparing an Environmental Assessment when the predicted exposure levels would be less than 5% of the FCC limits.

The applicant will ensure that the site is posted with appropriate RF exposure warning signs. If tower climbing by authorized personnel becomes necessary, transmitter power will be reduced or operation will cease, as necessary, so as to not exceed the RF exposure limits.

¹Office of Engineering and Technology Announces Updates to FM Model Software, DA 16-340, Released March 31, 2016



[View Tabular Results +](#)

Channel Selection	Channel 252 (98.3 MHz) ▾		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▾		
Height (m)	<input type="text" value="58"/>	Distance (m)	<input type="text" value="400"/>
ERP-H (W)	<input type="text" value="2600"/>	ERP-V (W)	<input type="text" value="2600"/>
Num of Elements	<input type="text" value="4"/>	Element Spacing (λ)	<input type="text" value=".5"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

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