

EXHIBIT 2

TECHNICAL CERTIFICATIONS & EXHIBITS

BROADCAST FACILITY

Proposed New NCE Station at Gold Beach, OR
Curry Coast Community Radio

OVERVIEW

The applicant proposes a new NCE Reserved-Band station at an existing tower, to serve Gold Beach, OR. Attached **Exhibit 2A** shows required contour coverage to the Community of License. **Exhibits 2B** to **2C** show interference protection to all other reserved band authorizations and applications. **Exhibit 2D** shows environmental compliance.

LACK OF OVERLAP WITH OTHER PROPOSALS FILED BY APPLICANT

The applicant has filed a second application in this Window, at Brookings, OR, first adjacent to this proposal; FID: 762348. In compliance with 47 CFR §73.3518, attached **Exhibit 2E** shows that there is no overlap between this proposal, and the Brookings proposal, over land areas. There is small area of overlap entirely over the Pacific Ocean, as permitted by §73.509(e).

METHODOLOGY

All contour calculations were made using the methods and procedures described in 47 CFR §73.313©. Contours were plotted and areas were calculated using linear interpolation in one-degree increments. FMOver calculations were done using V-Soft FM Commander software, using “HAAT method 0 (zero)”, 51 data points per radial, and the FCC 30 second terrain database.

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EXHIBIT 2A TECHNICAL CERTIFICATIONS - COMMUNITY OF LICENSE COVERAGE

NEW NCE GOLD BCH 60DBU

Latitude: 42-23-46.30 N
Longitude: 124-21-52.70 W
ERP: 0.68 kW
Channel: 209
Frequency: 89.7 MHz
AMSL Height: 732.0 m
Horiz. Pattern: Directional

GOLD BEACH - % OF POPULATION WITHIN 60DBU: 100%
GOLD BEACH - % OF AREA WITHIN 60DBU: 100%

TOTAL 60DBU AREA OVER LAND: 710.4km²
TOTAL 60DBU POPULATION 7203

Population Database: 2010 Census
Population computed by Block Centroid Method
Area does not include portions over the Pacific Ocean

Port Orford

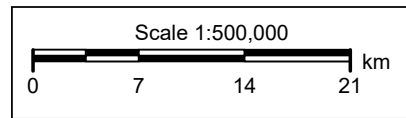
Nesika Beach

Gold Beach

NEW NCE GOLD BCH 60DBU

Curry

Pistol River



V-Soft Communications LLC ©

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EXHIBIT 2B

TECHNICAL CERTIFICATIONS

INTERFERENCE PROTECTION

This proposal meets the contour overlap requirements of §73.509 with respect to all other reserved-band stations. There are no I.F. stations within range.

CHANNEL STUDY

NEW NCE GOLD BEACH Curry Coast Community Radio											
REFERENCE		CH# 209C3- 89.7 MHz, Pwr= 0.68 kW DA, HAAT= 448.1 M, COR= 732 M								DISPLAY DATES	
42 23 46.3 N.		Average Protected F(50-50)= 34.9 km								DATA 10-21-21	
124 21 52.7 W.		Standard Directional								SEARCH 10-25-21	
CH CITY	CALL	TYPE STATE	ANT	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
211C Ashland	KSOR	LIC DCN OR		70.2 250.9	98.56 BMLD20010926ABP	42 41 29.40 123 13 48.20	38.000 810	11.3 1636	92.3 Southern Oregon University	70.6	5.7
209C0 Eugene	KLCC	LIC EN OR		29.2 210.0	205.19 BLED19900313KB	44 00 04.40 123 06 52.30	81.000 354	165.7 546	67.0 Lane Community College	5.9	50.5
208A Coos Bay	KDCB	LIC CN OR		5.3 185.4	106.98 BLED20120912ABP	43 21 15.40 124 14 34.40	0.055 148	14.1 202	9.7 Thedove Media, Inc.	53.0	39.8

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= - Zone 2, 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)
« = Station meets FCC minimum distance spacing for its class.

PROTECTED ZONES

Facility is OK with respect to AM station towers. Closest is at a distance of 40.5km

Facility is okay with respect to FCC monitoring stations.

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EXHIBIT 2C

TECHNICAL CERTIFICATIONS

Contour Protection vs KSOR

NEW NCE GOLD BEACH
Curry Coast Community Radio

FMCommander Single Allocation Study - 10-26-2021 - FCC NGDC 30 Sec
NEW!'s Overlaps (In= 70.57 km, Out= 5.74 km)

NEW! CH 209 C3 DA
Lat= 42 23 46.30, Lng= 124 21 52.70
0.68 kW 448.1 m HAAT, 732 m COR
Prot.= 60 dBu, Intef.= 100 dBu

KSOR CH 211 C DA BMLED20010926ABP
Lat= 42 41 29.40, Lng= 123 13 48.20
38.0 kW 810 m HAAT, 1636 m COR
Prot.= 60 dBu, Intef.= 100 dBu

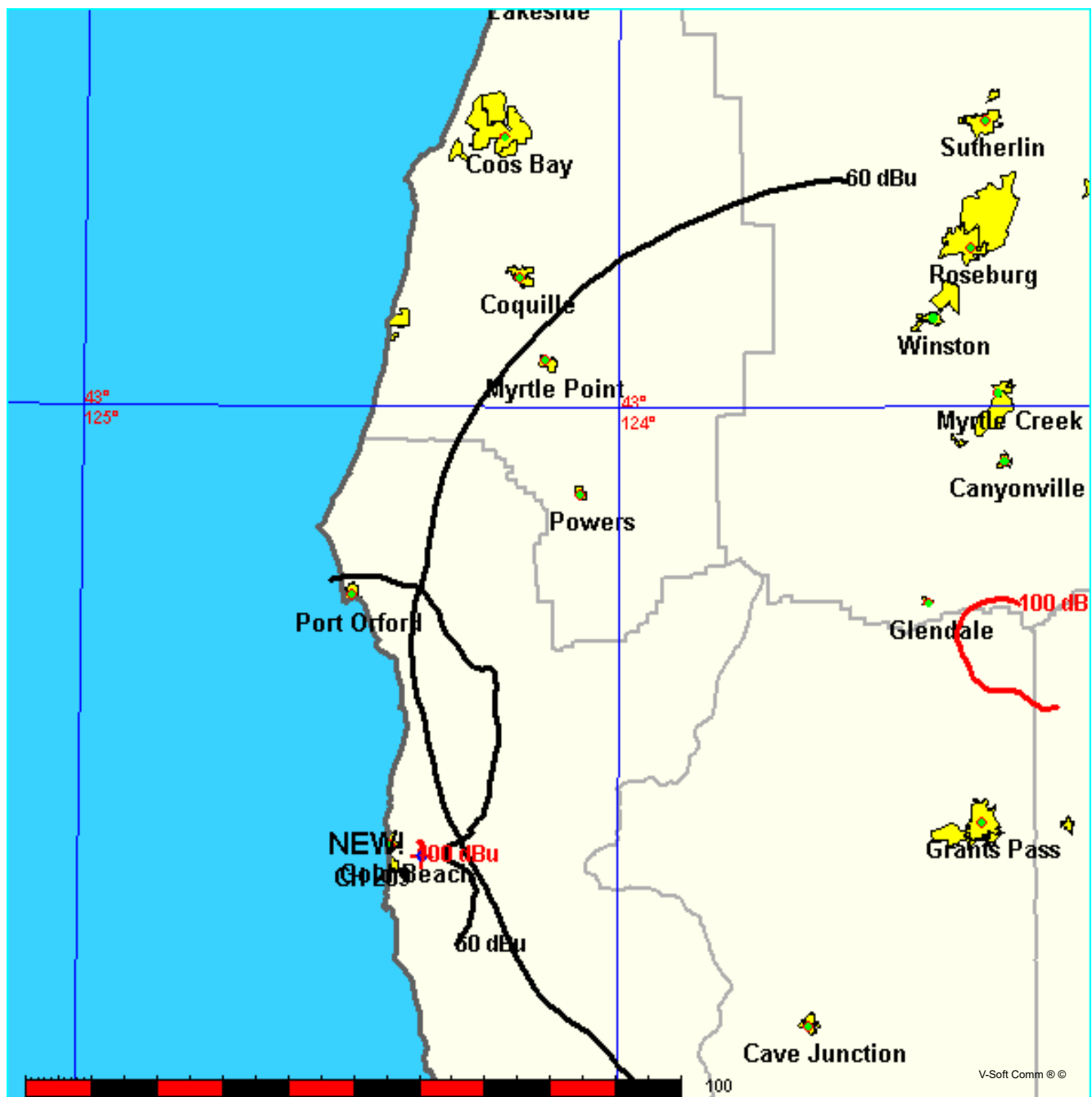


EXHIBIT 2D

TECHNICAL CERTIFICATIONS

ENVIRONMENTAL EFFECTS

This proposal would not have a significant environmental impact, under 47 CFR §1.1307. The applicant proposes mounting a Shively 6025 “Slant-Log” directional antenna on an existing tower, within a defacto “tower farm” at Grizzly Mountain, near Gold Beach, OR. Access to the remote site is controlled by locked gates, and has historically been considered to be an occupational/controlled access site. Out of an abundance of caution, however, it will be examined herein as an uncontrolled site.

The proposed center of radiation is 21m AGL. Since the proposed antenna is not listed with the FM Model software, the worst-case “Type 1” setting was employed. FM Model predicted a peak exposure of $75.7\mu\text{W}/\text{cm}^2$ at 5.2m from the tower. This represent 37.85% of the Maximum Permissible Exposure (MPE) of $200\mu\text{W}/\text{cm}^2$ for uncontrolled environments.

A summary of the potentially significant RF exposure sources at this site, are described below:

CALL	CITY	ERP (W)	ANTENNA	RELATIVE FIELD	AGL (M)	CALC. EXPOSURE	UNCONTROLLED LIMIT $\mu\text{W}/\text{cm}^2$	% OF LIMIT
PROP NEW NCE FM ch209 (89.7MHz)	GOLD BEACH	680	SHI 6025	FM MODEL Type 1	21	75.7	200	37.85
K13MI-D	SQUAW VALLEY	100	SCA TWO CL-713/HRM	OET 65 W/FACTORY ELEVATION PATTERN (from station's application)	10	7.2	200	3.60
K04MG-D	WEDDER-BURN	250	SCA HDCA-5-4	OET 65 W/FACTORY ELEVATION PATTERN at high resolution - 2m AGL - calculated locally	8	23.5	200	11.75
K15KB-D (479MHz)	SQUAW VALLEY	100	SCA SL-8	OET 65 W/FACTORY ELEVATION PATTERN at high resolution - 2m AGL - calculated locally	12	1.6	319	0.50
KGBR (FM) ch224 (92.7MHz)	GOLD BEACH	265	SHI 6812-3 (full wave spaced)	FM MODEL Type 1	14	79.3	200	39.65
TOTAL>>>								93.35

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For simplicity, the exposures from these 5 broadcast sources were added, for a total of 93.35% of the MPE for uncontrolled environments. However, the peak exposure for each source occurs in a narrow range from the base of each tower, and most occur close enough to the tower so that they do not combine with the peak exposures of most of the other towers. All other RF sources at the site are of a non-broadcast nature and are not expected to be significant sources of RF ground-level exposures.

In short, the applicant believes that this proposal will not result in total exposures exceeding the FCC guidelines, but will consent to on-site measurements, if deemed necessary.

Access to the tower is controlled by secure fencing and locked gates surrounding the compound. The applicant will ensure that proper RF warning signs are posted at appropriate locations. When tower climbing by authorized personnel becomes necessary, the permittee/licensee in coordination with other users at the site, will reduce power or cease operations so that persons are not subjected to RF exposures in excess of the FCC guidelines.

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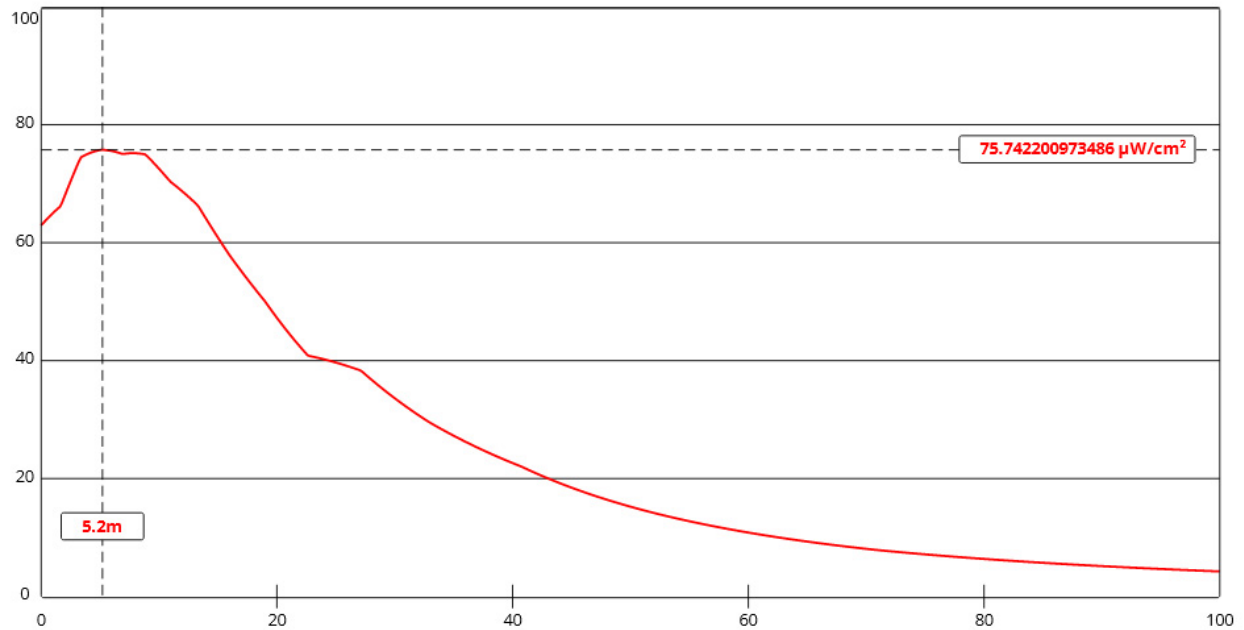
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[View Tabular Results +](#)

Channel Selection	Channel 209 (89.7 MHz) ▼		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▼		
Height (m)	<input type="text" value="21"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="680"/>	ERP-V (W)	<input type="text" value="680"/>
Num of Elements	<input type="text" value="1"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

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EXHIBIT 2E

TECHNICAL CERTIFICATIONS

LACK OF OVERLAP WITH OTHER PROPOSALS

This proposal does not overlap with the other application filed in this Window by the applicant, over land areas: Brookings, OR, first adjacent to this proposal; FID 762348. This application is in full compliance with §73.3518, in that it is not a “conflicting application”.

The *IN* entry, below, refers to the relationship between the proposed Gold Beach 60dBu protected contour, and the Brookings 54dBu interfering contour, which occurs over land. There is no overlap. The *OUT* entry, which shows some overlap, refers to the Brookings 60dBu protected contour, vs the proposed Gold Beach 54dBu interfering contour. This overlap occurs over the open Pacific Ocean, and is therefore permitted by §73.509(e).

NEW NCE GOLD BEACH Curry Coast Community Radio											
REFERENCE		CH# 209C3- 89.7 MHz, Pwr= 0.68 kw DA, HAAT= 448.1 M, COR= 732 M								DISPLAY DATES	
42 23 46.3 N.		Average Protected F(50-50)= 34.9 km								DATA 10-21-21	
124 21 52.7 W.		Standard Directional								SEARCH 10-25-21	
CH	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kw)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
208A NEW Brookings				164.6	40.42	42 02 43.00	0.350	25.2	15.5	0.1	-1.7
Brookings		OR		344.7		124 14 04.70	204	365	User		

 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= - Zone 2, Co to 3rd
 adjacent.

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10-26-2021 Terrain Data: FCC NGDC 30 Sec FMOVer Analysis

NEW Gold Beach

Channel = 209C3
 Max ERP = 0.68 kw
 RCAMSL = 732 m
 N. Lat. 42 23 46.30
 W. Lng. 124 21 52.70
 Protected
 60 dBu

NEW Brookings (Harbor Hills)

Channel = 208A
 Max ERP = 0.35 kw
 RCAMSL = 365 m
 N. Lat. 42 02 43.00
 W. Lng. 124 14 04.70
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
130.0	000.0215	0212.7	010.3	355.1	000.3500	0055.5	032.5	41.56	
131.0	000.0215	0215.9	010.4	355.0	000.3500	0056.4	032.3	41.77	
132.0	000.0215	0222.3	010.6	354.9	000.3500	0056.8	032.1	41.93	
133.0	000.0215	0229.7	010.7	354.9	000.3500	0057.1	031.8	42.09	
134.0	000.0215	0236.2	010.9	354.8	000.3500	0057.9	031.6	42.30	
135.0	000.0215	0243.4	011.0	354.7	000.3500	0058.6	031.3	42.52	
136.0	000.0215	0252.6	011.2	354.7	000.3500	0059.1	031.1	42.72	
137.0	000.0215	0262.6	011.5	354.6	000.3500	0059.5	030.8	42.92	
138.0	000.0215	0271.8	011.7	354.6	000.3500	0060.2	030.5	43.16	
139.0	000.0215	0279.3	011.8	354.4	000.3500	0061.5	030.2	43.46	
140.0	000.0215	0285.9	012.0	354.3	000.3500	0063.1	030.0	43.79	
141.0	000.0215	0293.5	012.1	354.1	000.3500	0064.6	029.7	44.10	
142.0	000.0215	0302.3	012.3	353.9	000.3500	0065.9	029.5	44.42	
143.0	000.0215	0312.6	012.5	353.8	000.3500	0067.2	029.2	44.74	
144.0	000.0215	0322.9	012.7	353.6	000.3500	0068.5	028.9	45.06	
145.0	000.0215	0333.3	012.9	353.4	000.3500	0069.9	028.6	45.40	
146.0	000.0215	0341.8	013.1	353.1	000.3500	0071.7	028.4	45.75	
147.0	000.0215	0348.0	013.2	352.8	000.3500	0073.7	028.2	46.12	
148.0	000.0215	0353.7	013.3	352.5	000.3500	0075.9	028.0	46.50	
149.0	000.0215	0358.9	013.4	352.1	000.3500	0078.3	027.8	46.89	
150.0	000.0215	0365.1	013.5	351.8	000.3500	0081.5	027.6	47.37	
151.0	000.0215	0371.6	013.6	351.4	000.3500	0085.9	027.4	47.97	
152.0	000.0215	0374.8	013.6	351.0	000.3500	0091.4	027.3	48.64	
153.0	000.0215	0375.3	013.6	350.5	000.3500	0097.9	027.2	49.34	
154.0	000.0215	0380.6	013.7	350.1	000.3500	0104.6	027.1	50.05	
155.0	000.0215	0395.6	014.0	349.7	000.3500	0109.7	026.8	50.67	
156.0	000.0215	0414.6	014.3	349.3	000.3500	0114.3	026.4	51.27	
157.0	000.0215	0431.2	014.5	348.9	000.3500	0119.9	026.1	51.88	
158.0	000.0215	0444.3	014.7	348.5	000.3500	0126.7	025.9	52.50	
159.0	000.0215	0455.8	014.9	348.0	000.3500	0133.3	025.7	53.09	
160.0	000.0215	0467.4	015.1	347.4	000.3500	0138.4	025.5	53.56	
161.0	000.0215	0474.5	015.2	346.9	000.3500	0142.3	025.3	53.91	
162.0	000.0215	0473.0	015.1	346.3	000.3500	0142.7	025.3	53.94	
163.0	000.0215	0462.0	015.0	345.7	000.3500	0138.0	025.5	53.53	
164.0	000.0215	0451.0	014.8	345.1	000.3500	0129.1	025.6	52.84	
165.0	000.0215	0443.1	014.7	344.5	000.3500	0118.0	025.8	52.01	
166.0	000.0215	0438.8	014.6	343.9	000.3500	0106.3	025.8	51.04	
167.0	000.0215	0434.6	014.6	343.4	000.3500	0095.3	025.9	49.97	
168.0	000.0215	0436.8	014.6	342.8	000.3500	0085.6	025.9	48.97	
169.0	000.0215	0442.3	014.7	342.2	000.3500	0077.1	025.8	48.05	
170.0	000.0215	0447.3	014.8	341.6	000.3500	0069.3	025.8	47.14	
171.0	000.0215	0445.8	014.7	341.1	000.3500	0061.9	025.9	46.17	
172.0	000.0215	0438.9	014.6	340.6	000.3500	0055.4	026.0	45.16	
173.0	000.0215	0429.9	014.5	340.1	000.3500	0050.1	026.2	44.14	
174.0	000.0215	0429.4	014.5	339.5	000.3500	0044.9	026.3	43.09	
175.0	000.0215	0433.1	014.5	339.0	000.3500	0040.0	026.3	42.08	
176.0	000.0215	0436.2	014.6	338.4	000.3500	0035.8	026.3	41.13	
177.0	000.0215	0444.8	014.7	337.8	000.3500	0031.1	026.3	40.05	
178.0	000.0215	0454.7	014.9	337.2	000.3500	0026.0	026.2	39.82	
179.0	000.0215	0464.6	015.0	336.5	000.3500	0021.8	026.2	39.84	
180.0	000.0215	0473.5	015.2	335.9	000.3500	0020.4	026.2	39.85	
181.0	000.0215	0482.5	015.3	335.2	000.3500	0021.7	026.2	39.85	

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182.0	000.0215	0497.2	015.5	334.5	000.3500	0026.2	026.1	39.90
183.0	000.0215	0515.6	015.8	333.6	000.3500	0031.7	025.9	40.39
184.0	000.0215	0534.4	016.2	332.7	000.3500	0036.0	025.8	41.50
185.0	000.0215	0547.8	016.4	331.9	000.3500	0038.6	025.7	42.13
186.0	000.0215	0556.9	016.6	331.1	000.3500	0041.2	025.7	42.67
187.0	000.0215	0565.3	016.7	330.4	000.3500	0044.2	025.8	43.27
188.0	000.0215	0572.0	016.9	329.7	000.3500	0048.3	025.9	44.02
189.0	000.0215	0576.4	016.9	329.1	000.3500	0052.8	026.0	44.74
190.0	000.0215	0577.7	017.0	328.6	000.3500	0057.2	026.2	45.33
191.0	000.0215	0579.1	017.0	328.0	000.3500	0062.5	026.3	45.92
192.0	000.0215	0581.7	017.0	327.5	000.3500	0069.0	026.5	46.63
193.0	000.0215	0585.5	017.1	326.9	000.3500	0076.7	026.7	47.44
194.0	000.0215	0590.2	017.2	326.4	000.3500	0085.7	026.8	48.35
195.0	000.0215	0594.9	017.3	325.8	000.3500	0094.3	027.0	49.14
196.0	000.0215	0601.0	017.4	325.2	000.3500	0103.9	027.2	49.94
197.0	000.0215	0609.0	017.5	324.6	000.3500	0114.1	027.3	50.68
198.0	000.0215	0617.2	017.7	324.0	000.3500	0123.9	027.5	51.26
199.0	000.0215	0624.0	017.8	323.4	000.3500	0132.2	027.7	51.69
200.0	000.0215	0628.5	017.9	322.9	000.3500	0139.2	027.9	52.00
201.0	000.0215	0631.0	017.9	322.5	000.3500	0144.6	028.1	52.20
202.0	000.0215	0632.3	017.9	322.2	000.3500	0149.5	028.4	52.35
203.0	000.0215	0633.2	017.9	321.8	000.3500	0154.0	028.7	52.46
204.0	000.0215	0634.1	017.9	321.5	000.3500	0158.1	028.9	52.54
205.0	000.0215	0634.9	018.0	321.2	000.3500	0161.8	029.2	52.58
206.0	000.0215	0635.4	018.0	320.9	000.3500	0165.2	029.5	52.60
207.0	000.0215	0635.9	018.0	320.7	000.3500	0168.4	029.8	52.61
208.0	000.0215	0636.5	018.0	320.4	000.3500	0171.4	030.0	52.59
209.0	000.0215	0637.1	018.0	320.2	000.3500	0174.2	030.3	52.57
210.0	000.0215	0637.5	018.0	320.0	000.3500	0176.8	030.6	52.53
211.0	000.0215	0638.3	018.0	319.8	000.3500	0179.3	030.9	52.48
212.0	000.0215	0639.7	018.0	319.5	000.3500	0181.8	031.2	52.43
213.0	000.0215	0642.0	018.1	319.3	000.3500	0184.6	031.5	52.39
214.0	000.0215	0645.8	018.1	319.1	000.3500	0187.8	031.8	52.37
215.0	000.0215	0650.2	018.2	318.8	000.3500	0191.1	032.1	52.36
216.0	000.0215	0655.2	018.3	318.6	000.3500	0194.3	032.4	52.35
217.0	000.0215	0660.2	018.3	318.3	000.3500	0197.5	032.7	52.33
218.0	000.0215	0665.2	018.4	318.1	000.3500	0200.5	033.0	52.31
219.0	000.0215	0670.1	018.5	317.9	000.3500	0203.3	033.3	52.27
220.0	000.0215	0674.5	018.5	317.7	000.3500	0205.8	033.6	52.22
221.0	000.0215	0679.0	018.6	317.5	000.3500	0208.1	033.9	52.16
222.0	000.0215	0683.3	018.7	317.4	000.3500	0210.3	034.2	52.10
223.0	000.0215	0687.2	018.7	317.2	000.3500	0212.1	034.5	52.02
224.0	000.0215	0690.8	018.8	317.1	000.3500	0213.6	034.9	51.92

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EXHIBIT 2E - page 4

TECHNICAL CERTIFICATIONS

Contour Protection vs NEW BROOKINGS proposal filed by applicant

73.3518 COMPLIANCE
Curry Coast Community Radio

FMCommander Single Allocation Study - 10-26-2021 - FCC NGDC 30 Sec
NEW!'s Overlaps (In= 0.09 km, Out= -1.72 km)

NEW! CH 209 C3 DA - Gold Beach
Lat= 42 23 46.30, Lng= 124 21 52.70
0.68 kW 448.1 m HAAT, 732 m COR
Prot.= 60 dBu, Intef.= 54 dBu

New Brookings (Harbor Hills)
Lat= 42 02 43.00, Lng= 124 14 04.70
0.35 kW 203.7 m HAAT, 365 m COR
Prot.= 60 dBu, Intef.= 54 dBu

