

Technical Certifications Exhibit

This application complies with all engineering standards and assignment requirements specified in the applicable FCC rules and regulations. This application proposes a new site as is indicated below:

	Licensed	Minor Mod
Channel / Class	270D	270D
ASRN	1238110	1004942
Geographical Coordinates	35 30 43.6 78 58 40.1	35 27 41.0 79 08 37.2
Tower AGL	533.0 m	65.5 m
Site AMSL	122.0 m	136.9 m
COR AGL	482.0 m	57.0 m
COR AMSL	604.0 m	193.9 m
HAAT	520.0 m	96.2 m
ERP	0.190 kW (H&V, non-DA)	0.131 kW (H&V, non-DA)

FCC 30 second terrain data

Tabulation of HAAT / ERP / distance to 60 dBu contour

CH 270 35 27 41.0 / 79 08 37.2 0.131 kW ERP (H&V, non-DA) 193.9 m COR AMSL 96.2 m HAAT

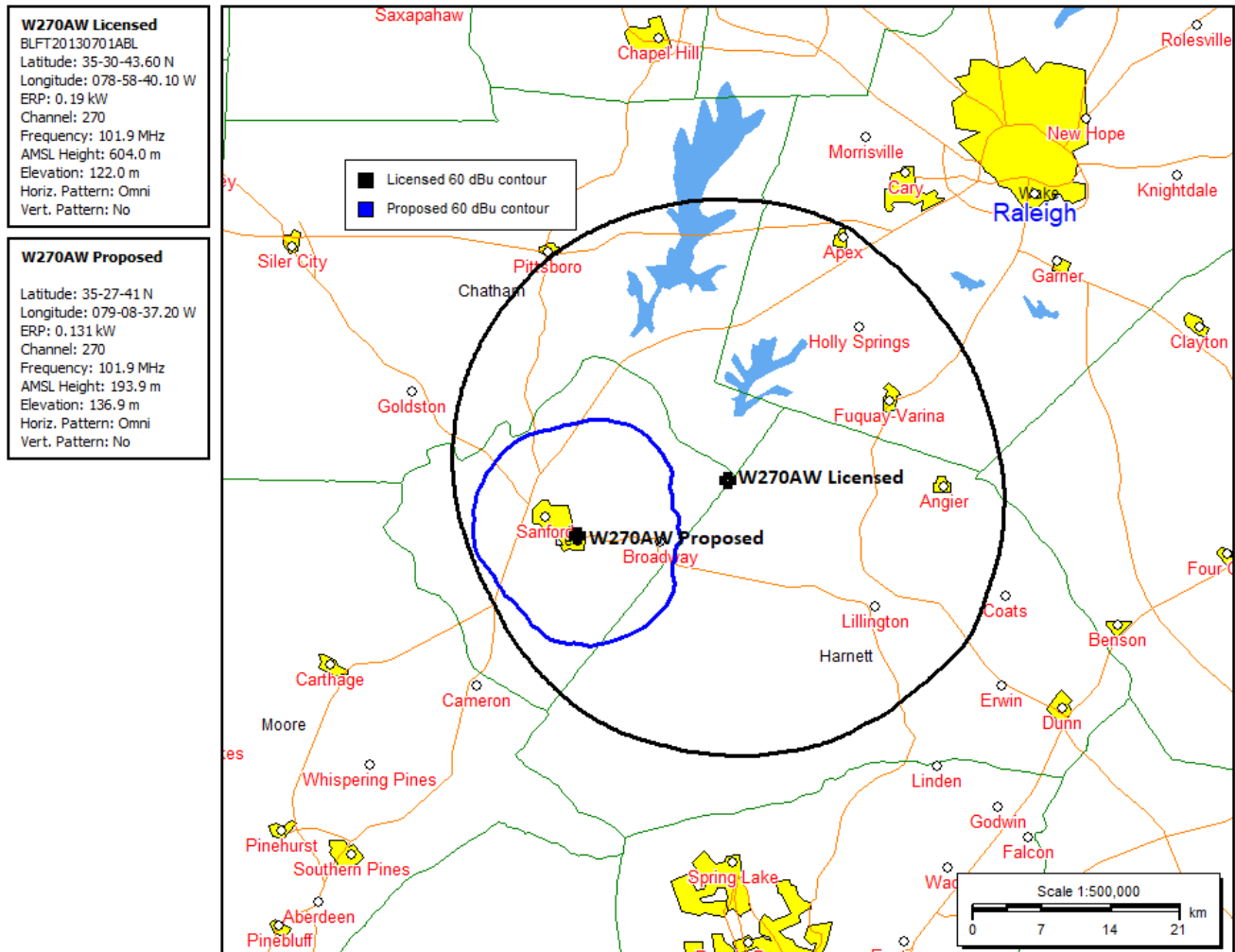
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	83.8	110.1	0.1310	-8.83	1.000	11.52
010	73.0	120.9	0.1310	-8.83	1.000	12.03
020	69.2	124.7	0.1310	-8.83	1.000	12.21
030	67.5	126.4	0.1310	-8.83	1.000	12.28
040	74.4	119.5	0.1310	-8.83	1.000	11.97
050	82.2	111.7	0.1310	-8.83	1.000	11.60
060	103.0	90.9	0.1310	-8.83	1.000	10.52
070	113.9	80.0	0.1310	-8.83	1.000	9.90
080	108.6	85.3	0.1310	-8.83	1.000	10.21
090	109.2	84.7	0.1310	-8.83	1.000	10.17
100	116.3	77.6	0.1310	-8.83	1.000	9.76
110	112.8	81.1	0.1310	-8.83	1.000	9.96
120	96.0	97.9	0.1310	-8.83	1.000	10.90
130	92.2	101.7	0.1310	-8.83	1.000	11.10
140	92.3	101.6	0.1310	-8.83	1.000	11.09
150	94.8	99.1	0.1310	-8.83	1.000	10.96
160	96.1	97.8	0.1310	-8.83	1.000	10.90
170	96.6	97.3	0.1310	-8.83	1.000	10.87
180	100.6	93.3	0.1310	-8.83	1.000	10.65
190	100.5	93.4	0.1310	-8.83	1.000	10.66
200	106.1	87.8	0.1310	-8.83	1.000	10.35
210	115.0	78.9	0.1310	-8.83	1.000	9.83
220	122.9	71.0	0.1310	-8.83	1.000	9.34
230	123.2	70.7	0.1310	-8.83	1.000	9.32
240	122.3	71.6	0.1310	-8.83	1.000	9.38
250	120.0	73.9	0.1310	-8.83	1.000	9.52
260	107.5	86.4	0.1310	-8.83	1.000	10.27
270	102.5	91.4	0.1310	-8.83	1.000	10.55
280	100.0	93.9	0.1310	-8.83	1.000	10.69
290	93.8	100.1	0.1310	-8.83	1.000	11.02
300	92.2	101.7	0.1310	-8.83	1.000	11.10
310	89.9	104.0	0.1310	-8.83	1.000	11.22
320	85.4	108.5	0.1310	-8.83	1.000	11.44
330	85.6	108.3	0.1310	-8.83	1.000	11.43
340	88.1	105.8	0.1310	-8.83	1.000	11.31
350	89.3	104.6	0.1310	-8.83	1.000	11.25

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(yellow highlighted values establish average HAAT)

60 dBu contour coverage map

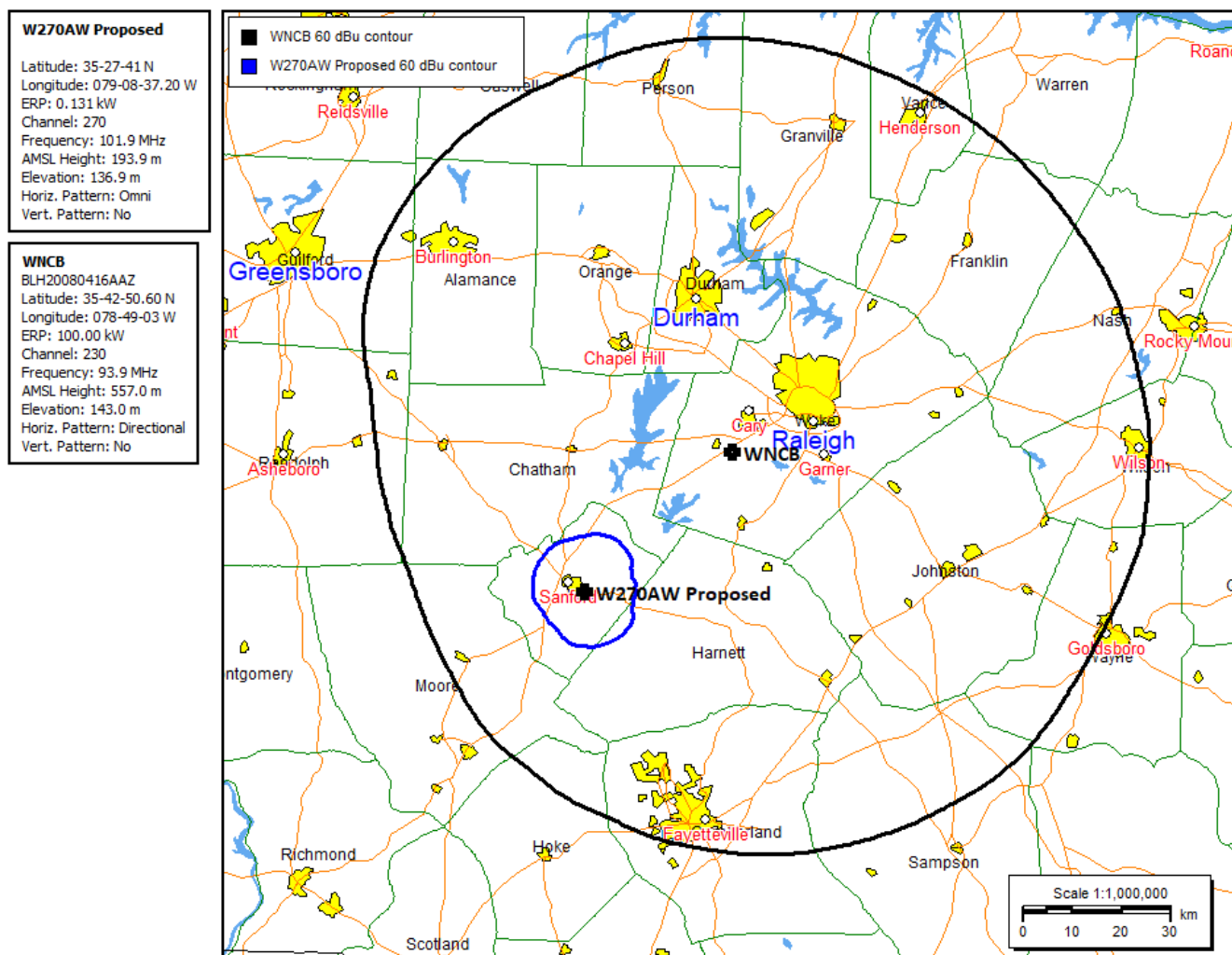
The proposed 60 dBu contour will continue to have overlap with the licensed 60 dBu contour.



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Fill-in Translator

W270AW operates as a fill-in translator for WNCB(FM) (Facility ID 53596), Cary, NC. The below map demonstrates that the 60 dBu contour of W270AW as proposed will be completely encompassed within the 60 dBu contour of WNCB and thus meets the required criteria for fill-in status.



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Interference Study

CH 270 35 27 41.0 / 79 08 37.2 0.131 kW ERP (H&V, non-DA) 193.9 m COR AMSL 96.2 m HAAT

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
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Reference station:

270D	W270AW	LIC	69.4	16.06	35 30 43.60	0.190				
Sanford		NC	249.5	BLFT20130701ABL	78 58 40.10	520	604	Educational Media Foundation		

Co-channel, 1st, 2nd, & 3rd adjacent channel relationships:

268C	WRAL	LIC	66.3	60.08	35 40 35.10	98.000	13.7	91.8	35.3	-32.5
Raleigh		NC	246.7	0000160016	78 32 07.20	606	697	Wral-Fm, Inc.		
269D	W269DN	LIC	235.8	99.96	34 57 09.50	0.250	15.4	10.3	75.9	74.7
Wadesboro		NC	55.2	0000130878	80 02 59.20		173	New Life Community Temple		
270A	WKSK-FM	LIC	31.5	167.59	36 44 39.50	6.000	88.9	30.0	66.4	95.9
South Hill		VA	212.0	BLH20040526ABK	78 09 41.00	96	199	Lakes Media, LLC		
270D	W270DT	LIC	22.2	60.81	35 58 05.50	0.120	25.2	7.5	23.3	10.0
Durham		NC	202.4	BLFT20190319AAK	78 53 16.00		186	Arohi Media LLC		
270C0	WBAV-FM	LIC	263.1	195.50	35 13 57.50	100.000	175.2	74.4	9.8	85.7
Gastonia		NC	81.9	BLH19880129KD	81 16 34.30	301	552	Beasley Media Group Licens		
270C1	WIKS	LIC	98.7	180.19	35 12 07.50	100.000	171.8	72.2	-1.8	75.3
New Bern		NC	279.8	BLH19870306KD	77 11 13.80	299	308	Cmg Coastal Carolina, LLC		
270L1	WKRP-LP	LIC	51.2	67.64	35 50 26.70	0.100			37.3	22.4
Raleigh		NC	231.6	BLL20151125AGI	78 33 32.10	8	96	Oak City Media, Inc.		
271C0	WJMH	LIC	321.8	115.52	36 16 33.50	100.000	113.3	76.9	-9.3	22.0
Reidsville		NC	141.4	BMLH20010731ACA	79 56 25.10	367	600	Audacy License, LLC		
271D	W272DD	LIC	162.6	46.70	35 03 35.20	0.010	10.7	7.5	25.2	23.6
Fayetteville		NC	342.7	0000181494	78 59 22.80		240	Colonial Radio Group, Inc.		
272A	WKJO	LIC	78.3	65.51	35 34 43.60	2.600	2.5	27.8	52.8	36.8
Smithfield		NC	258.7	BLH20101029ACW	78 26 09.00	153	221	Fm 102.3 LLC		
272D	W272BN	LIC	250.9	6.82	35 26 28.60	0.027	0.4	5.6	-3.1	0.4
Sanford		NC	70.8	BLFT20070808AAF	79 12 53.10	74	176	Positive Alternative Radio		
273A	WIOZ-FM	LIC	221.4	45.88	35 09 04.60	3.400	2.6	28.1	33.7	17.0
Southern Pines		NC	41.2	BLH19951107KB	79 28 39.10	133	258	Meridian Communications. L.L.		
273A	WKXU	LIC	12.6	73.06	36 06 13.50	1.500	2.3	30.0	58.6	42.4
Hillsborough		NC	192.7	BLH20101029ACM	78 57 56.00	204	350	New Century Media Group, LLC		

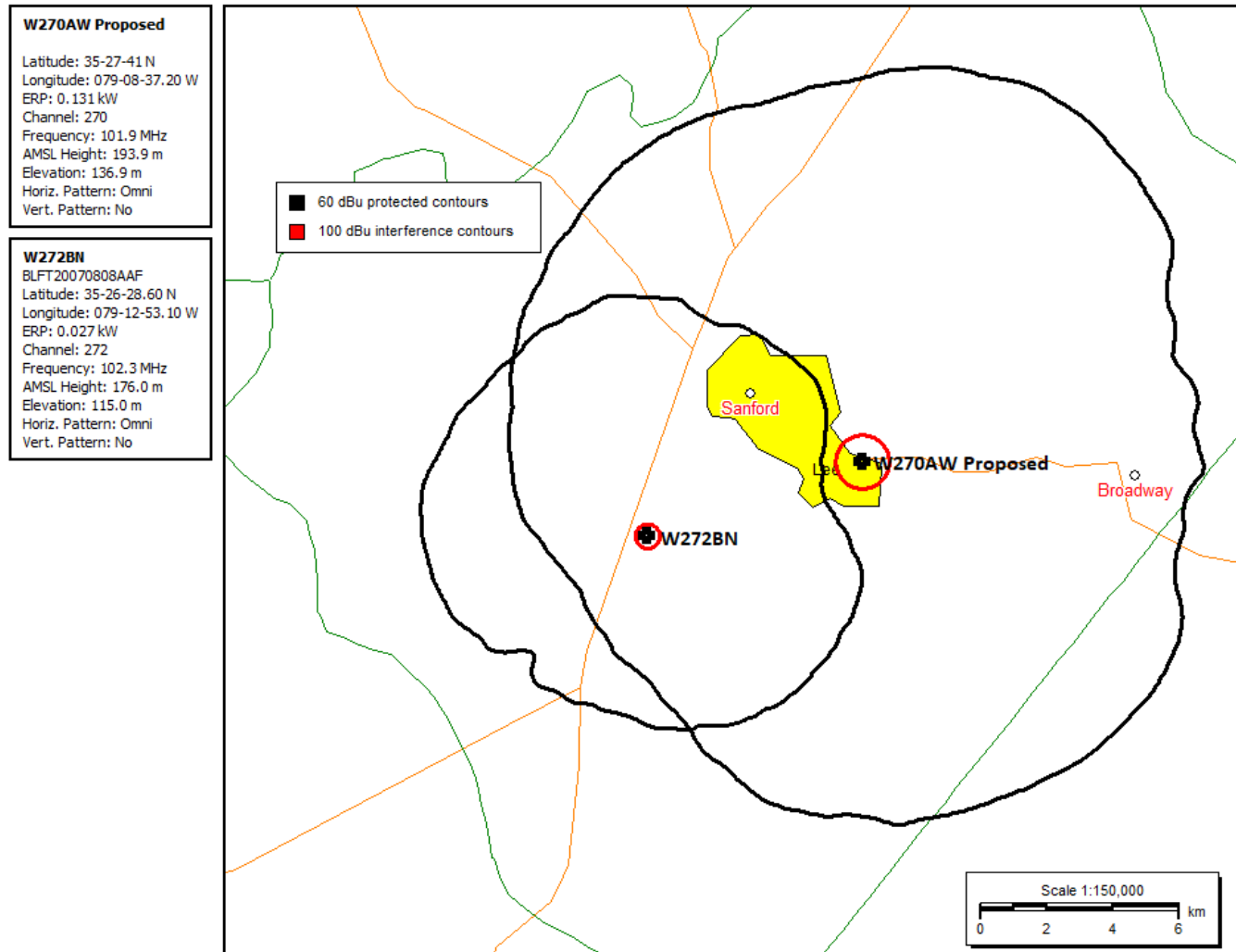
I.F. relationships:

216A	WYBH	LIC	162.6	46.69	35 03 35.60	0.255	0.0	0.0	9.5R	37.2M
Fayetteville		NC	342.7	BLED20081008ACL	78 59 23.10	195	256	Bible Broadcasting Network		

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Interference Study

The below map demonstrates the lack of prohibited overlap of W270AW as proposed to W272BN.



FCC 30 second terrain data

Interference Study

W270AW is located within the protected contour of the following facility:

WRAL (LIC), CH 268C

WRAL signal strength at the W270AW site	73.2 dBu
W270AW interference contour	113.2 dBu
Distance to W270AW interference contour	176.5 meters

W270AW's proposed antenna COR AGL height is 57.0 meters. The below chart demonstrates that the utilization of the Nicom BKG77 2 bay .5 spaced antenna no interference will reach the ground, therefore, based on the showing of no population within the area of predicted interference a waiver of Section 74.1204(d) is respectfully requested.

ERP (kw) :	0.131
Height of Antenna above Ground (m) :	57.0
Translator's IX Contour:	113.2
Antenna Type:	BKG77 2 bay HW

Depression Angle	Antenna	ERP (kw)	Dist. To IX	Height IX Contour
<u>from Horizon</u>	<u>Relative Field</u>	<u>from the Antenna RF</u>	<u>Contour (m)</u>	<u>Above Ground (m)</u>
0	1	0.1310	175.6449	57.000
5	0.988	0.1279	173.5372	41.875
10	0.952	0.1187	167.2140	27.964
15	0.881	0.1017	154.7432	16.950
20	0.791	0.0820	138.9351	9.481
25	0.686	0.0616	120.4924	6.078
30	0.577	0.0436	101.3471	6.326
35	0.463	0.0281	81.3236	10.355
40	0.354	0.0164	62.1783	17.033
45	0.256	0.0086	44.9651	25.205
50	0.174	0.0040	30.5622	33.588
55	0.104	0.0014	18.2671	42.036
60	0.061	0.0005	10.7143	47.721
65	0.028	0.0001	4.9181	52.543
70	0.007	0.0000	1.2295	55.845
75	0.008	0.0000	1.4052	55.643
80	0.009	0.0000	1.5808	55.443
85	0.009	0.0000	1.5808	55.425
90	0.009	0.0000	1.5808	55.419

Environment Impact & RFR Compliance

W270AW will be located at an established communications site that is in compliance with all environmental impact requirements.

W270AW as proposed will operate with an ERP of 0.131 kW (H&V, non-DA) at an antenna COR AGL height of 57.0 meters. For a worse case estimation at 2 meters above ground level the RFR is no more than 0.3% of the general population/uncontrolled MPE limit. There are no other broadcast facilities at the site.

Facilities that contribute no more than 5% of the general population/uncontrolled MPE limit at the site comply with the requirements of OET Bulletin No. 65 with no further study, therefore W270AW as proposed is in compliance with all environmental and RFR requirements.

The site has restricted access to only authorized personnel. The applicant certifies that in cooperation with other users of the site all authorized personnel will be protected from RFR exposure in excess of FCC guidelines while accessing any controlled exposure area, including the tower, by either reducing power or ceasing operations.