

Section 74.1204 - Statement of Compliance
AM Revitalization 250-Mile Window Application
W243CT, Myrtle Beach, NC to Wake Forest, NC, Channel 226
FM Translator Facility ID. 20706
August, 2016

The Applicant proposes to modify the above-referenced, non-reserved band, FM translator authorization pursuant to the announced “*First FM translator application modification window for AM stations to modify and/or relocate FM translator stations (First Modification Window)*”.¹ The FM translator will relocate from its licensed site, change frequency and rebroadcast Class B AM station WDRU(AM), Creedmoor, NC (Facility ID 53104). ***This minor modification application resolves a mutually exclusive proposal*** previously filed that had proposed channel 239D at the same location as the instant proposal.

As discussed below, the instant proposal complies with the protection requirements set forth in Section 74.1204 of the FCC Rules.

Section 74.1204(a) Contour Overlap Protection Criteria

Attached are maps which demonstrate that the proposed technical facility complies with the contour overlap provisions of Section 74.1204(a) of the FCC Rules with respect to all pertinent co-channel and first adjacent channel authorizations (See Exhibit 13). The instant proposal is well clear of all other relevant assignments, authorizations and applications of co-channel and first-adjacent channel protection considerations not represented herein.

Section 74.1204(d) Second/Third-Adjacent Channel Protection

The required protection to Third-adjacent channel station WYFL(FM), Henderson, NC (Channel 223C0) is discussed below. The instant proposal is well clear of all other relevant second and third-adjacent channel protection considerations not represented herein.

The proposed transmitting antenna will be located within the protected contour of the third-adjacent channel, full service station WYFL(FM) which results in contour overlap as defined in Section 74.1204 of the FCC Rules. However, at the translator’s proposed transmitter site, WYFL(FM) is predicted to produce an F(50,50) signal strength of 76 dBu. In the vicinity of the third-adjacent channel translator station, the translator’s

¹ See FCC Public Notice (DA 1491), *Media Bureau Announces Filing Dates and Procedures for AM Station Filing Window for FM Translator Modifications and Availability of FM Translator Technical Tools*, Released December 23, 2015.

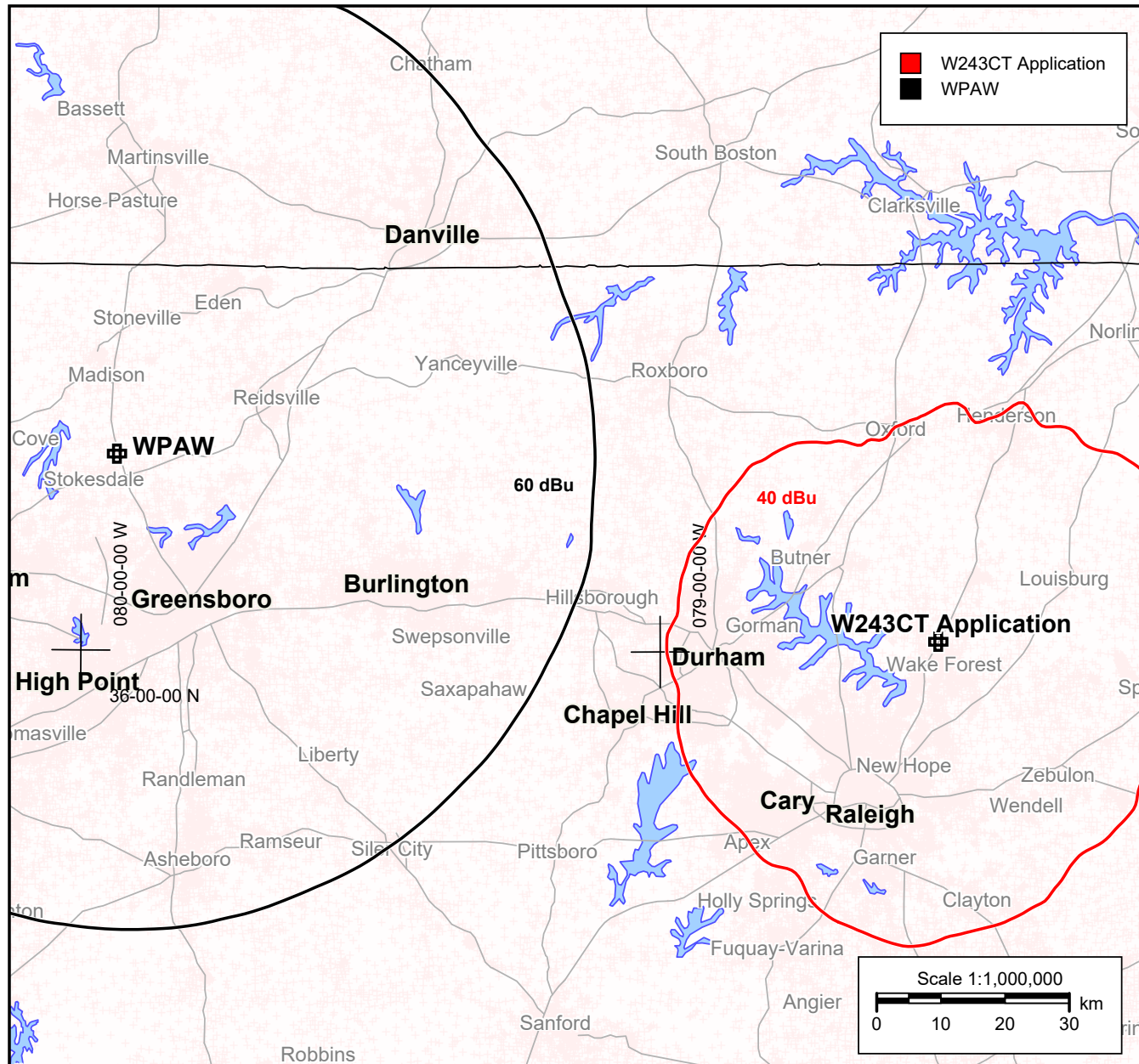
relevant interfering contour is the 116 dBu contour relative to WYFL(FM). According to free space calculations, within 30 feet of ground level, the translator's worst-case predicted 116 dBu contour will extend, at most, 147 meters from the proposed transmitter site. (See the attached Table). As shown on the attached aerial view map, there are no roadways, low clearance buildings or residences located within 147 meters of the proposed transmitter site. Therefore, the translator's worst-case interfering contour relative to WYFL(FM) does not reach any buildings or major roads where there may be an affected population. Therefore, the proposed minor change will cause no interference to any population served by WYFL(FM).

Accordingly, the proposed facility satisfies Section 74.1204(d) of the FCC Rules because it has been "demonstrated that no actual interference will occur due to lack of population or such other factors as may be applicable".

Ex 13 A W243CT_A 74.1204 Compliance WPAW 226C



In accordance with 74.1204
of the rules there is no
prohibited contour overlap
from the proposed translator
and the protected contour
of WPAW 226C Winston-
Salem NC.



WPAW

Winston-salem, NC
BMLH20030303ABL
Channel: 226C
Latitude: 36-16-33 N
Longitude: 079-56-26 W
ERP: 100.00 kW
HAAT 335.0 m
Frequency: 93.1 MHz
AMSL Height: 568.0 m
Elevation: 280.0 m
Horiz. Pattern: Omni
Study Date: 8/17/2016

W243CT Application

WakeForest, NC

Channel: 226D
Latitude: 36-00-47 N
Longitude: 078-31-12 W
ERP: 0.25 kW
HAAT 83.43 m
Frequency: 93.1 MHz
AMSL Height: 193.0 m
Elevation: 116.36 m
Horiz. Pattern: Omni
Study Date: 8/17/2016

Ex 13 B W243CT_A 74.1204 Compliance WYFL Henderson, NC



In accordance with 74.1204 of the rules, as shown in the D/U signal analysis, there is no prohibited contour overlap from the proposed translator and the protected signal of WYFL.

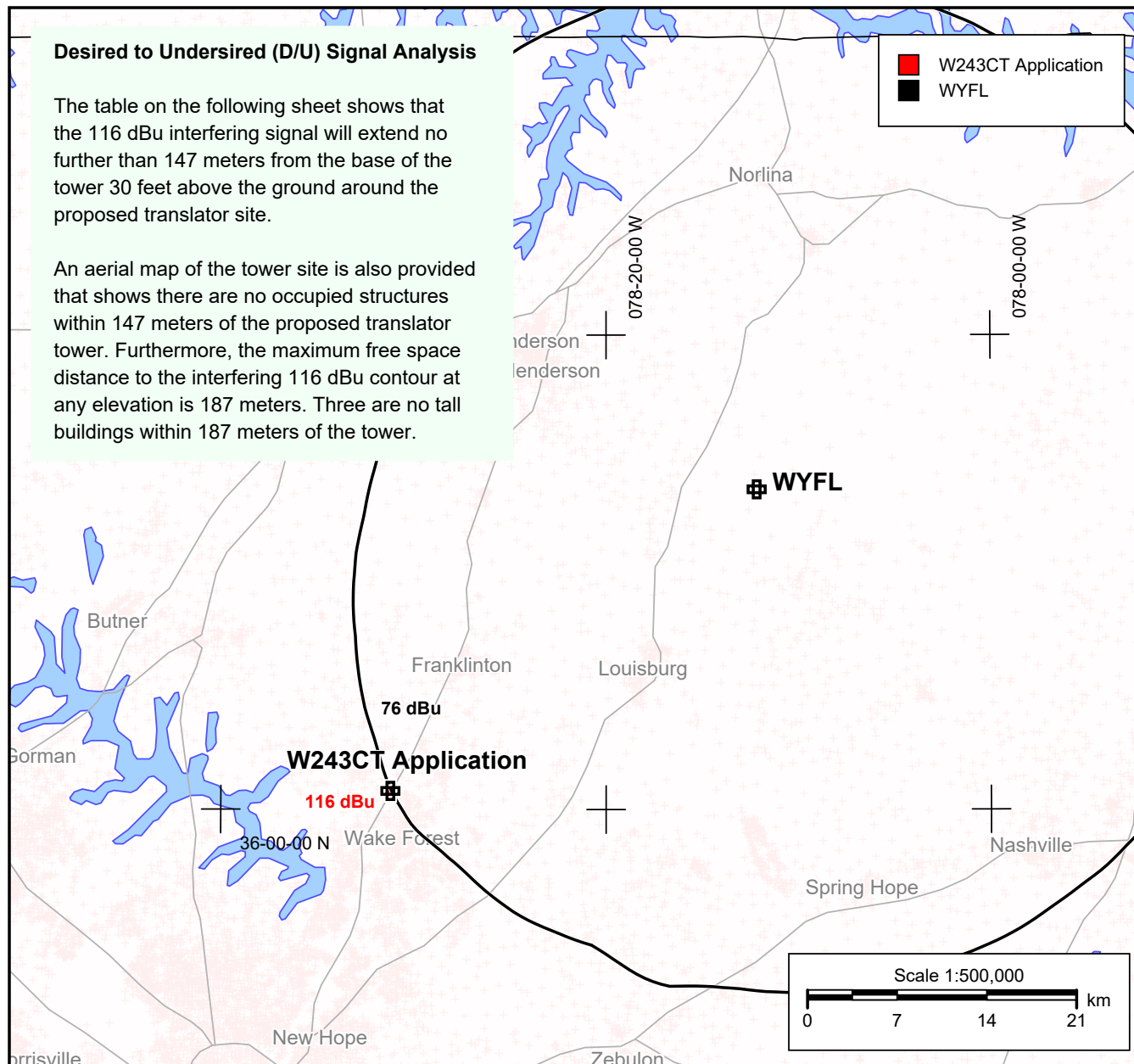
WYFL

Henderson, NC
BLED20140723ACU
Channel: 223C0
Latitude: 36-13-30 N
Longitude: 078-12-10 W
ERP: 100.00 kW
HAAT 308.0 m
Frequency: 92.5 MHz
AMSL Height: 403.0 m
Elevation: 122.0 m
Horiz. Pattern: Directional
Study Date: 8/17/2016

W243CT Application

WakeForest, NC

Channel: 226D
Latitude: 36-00-47 N
Longitude: 078-31-12 W
ERP: 0.25 kW
HAAT 83.43 m
Frequency: 93.1 MHz
AMSL Height: 193.0 m
Elevation: 116.36 m
Horiz. Pattern: Omni
Study Date: 8/17/2016



W243CT Wake Forest NC
Proposed 250 Watts ERP

Maximum ERP Interfering contour value -----> 116 dBu
 0.25 kW RCAGL (m)-----> 70 meters
 Antenna Type -----> 1

Antenna Type 1 = **NIC, 1-bay, full-wave spaced**

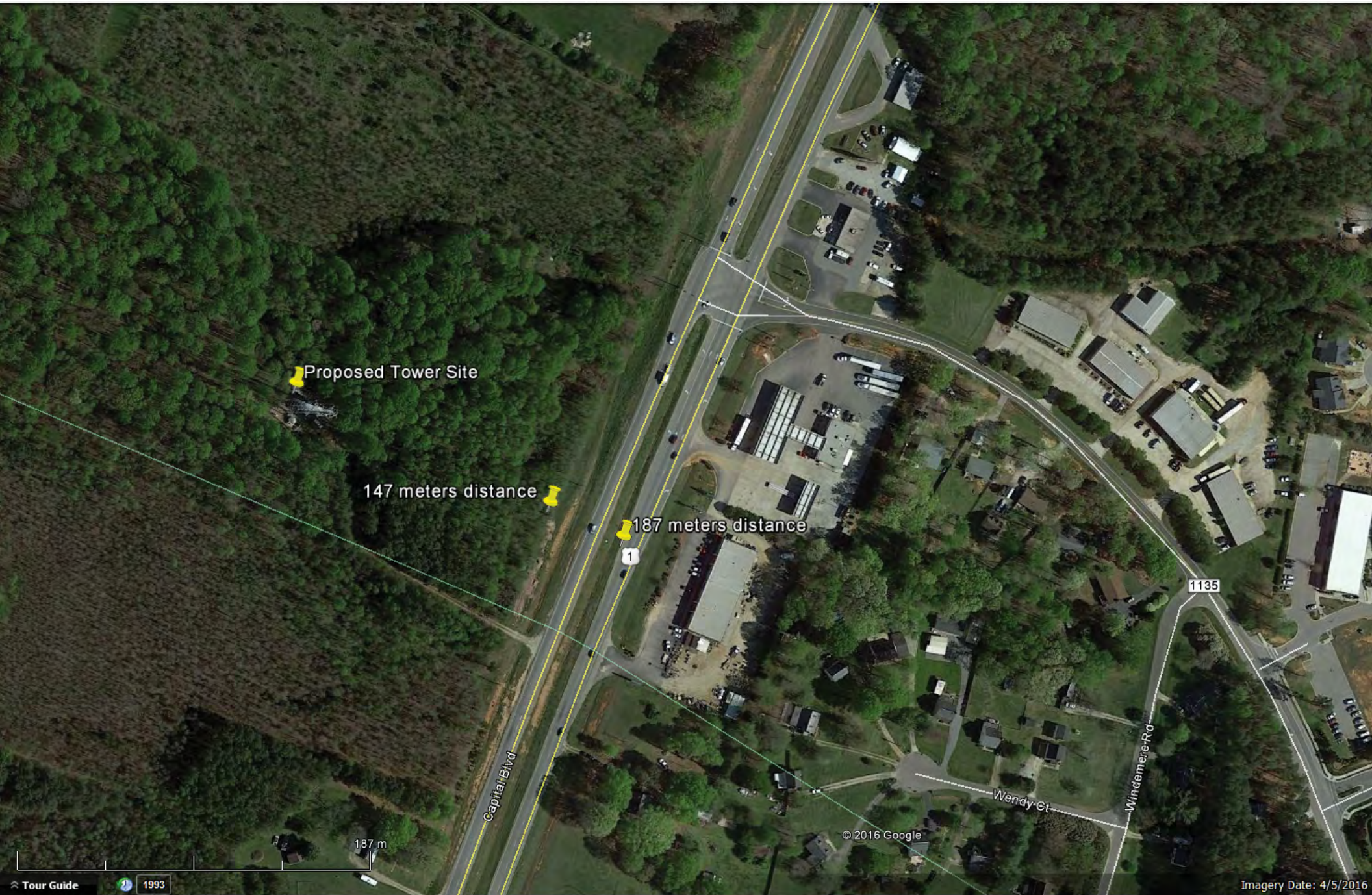
Angle Below Horizontal (degrees)	Vertical Pattern**** (REL. FIELD)	W243CT ERP (kW)	W243CT ERP (dBk)	Proposed Free-Space Distance to 116 dBu interfering contour (meters)	Slant Distance (meters) *	Height of 116 dBu interfering contour above ground (feet)**	Proposed Interference within 30 ' of ground level?	Horizontal Distance (meters) ***	Horizontal Distance (feet) ***
0	1.000	0.2500	-6.021	175.4	N/A	229.7			
5	0.998	0.2490	-6.038	175.0	698.7	179.6	No	174.4	572.0
10	0.987	0.2435	-6.134	173.1	350.7	131.0	No	170.5	559.3
15	0.970	0.2352	-6.285	170.1	235.3	85.2	No	164.3	539.1
20	0.950	0.2256	-6.466	166.6	178.1	42.7	No	156.6	513.6
25	0.920	0.2116	-6.745	161.3	144.1	5.9	Yes	146.2	479.8
30	0.885	0.1958	-7.082	155.2	121.8	-24.9	Yes	134.4	441.0
35	0.842	0.1772	-7.514	147.7	106.2	-48.2	Yes	121.0	396.9
40	0.800	0.1600	-7.959	140.3	94.7	-66.2	Yes	107.5	352.6
45	0.745	0.1388	-8.577	130.7	86.1	-73.4	Yes	92.4	303.1
50	0.690	0.1190	-9.244	121.0	79.5	-74.5	Yes	77.8	255.2
55	0.630	0.0992	-10.034	110.5	74.3	-67.3	Yes	63.4	207.9
60	0.565	0.0798	-10.980	99.1	70.3	-51.9	Yes	49.5	162.5
65	0.498	0.0620	-12.076	87.3	67.2	-30.0	Yes	36.9	121.1
70	0.428	0.0458	-13.392	75.1	64.8	-1.8	Yes	25.7	84.2
75	0.355	0.0315	-15.016	62.3	63.0	32.4	No	16.1	52.9
80	0.280	0.0196	-17.077	49.1	61.8	71.0	No	8.5	28.0
85	0.205	0.0105	-19.786	36.0	61.1	112.2	No	3.1	10.3
90	0.130	0.0042	-23.742	22.8	60.9	154.9	No	0.0	0.0

* Slant distance from antenna center of radiation to location 30 feet (9.1 meters) above ground level at angle below horizontal.

** A negative number indicates that the interfering contour is predicted to reach ground level. If a negative number is present, the interfering contour reaches ground level at the "Horizontal Distance" described below.

*** Horizontal distance from tower base to interfering contour at the indicated height above ground level. If a negative height above ground level is indicated, this horizontal distance is the distance from the tower base to the interfering contour. This horizontal distance is only relevant if the proposed interference is predicted to occur within 30 feet of ground level.

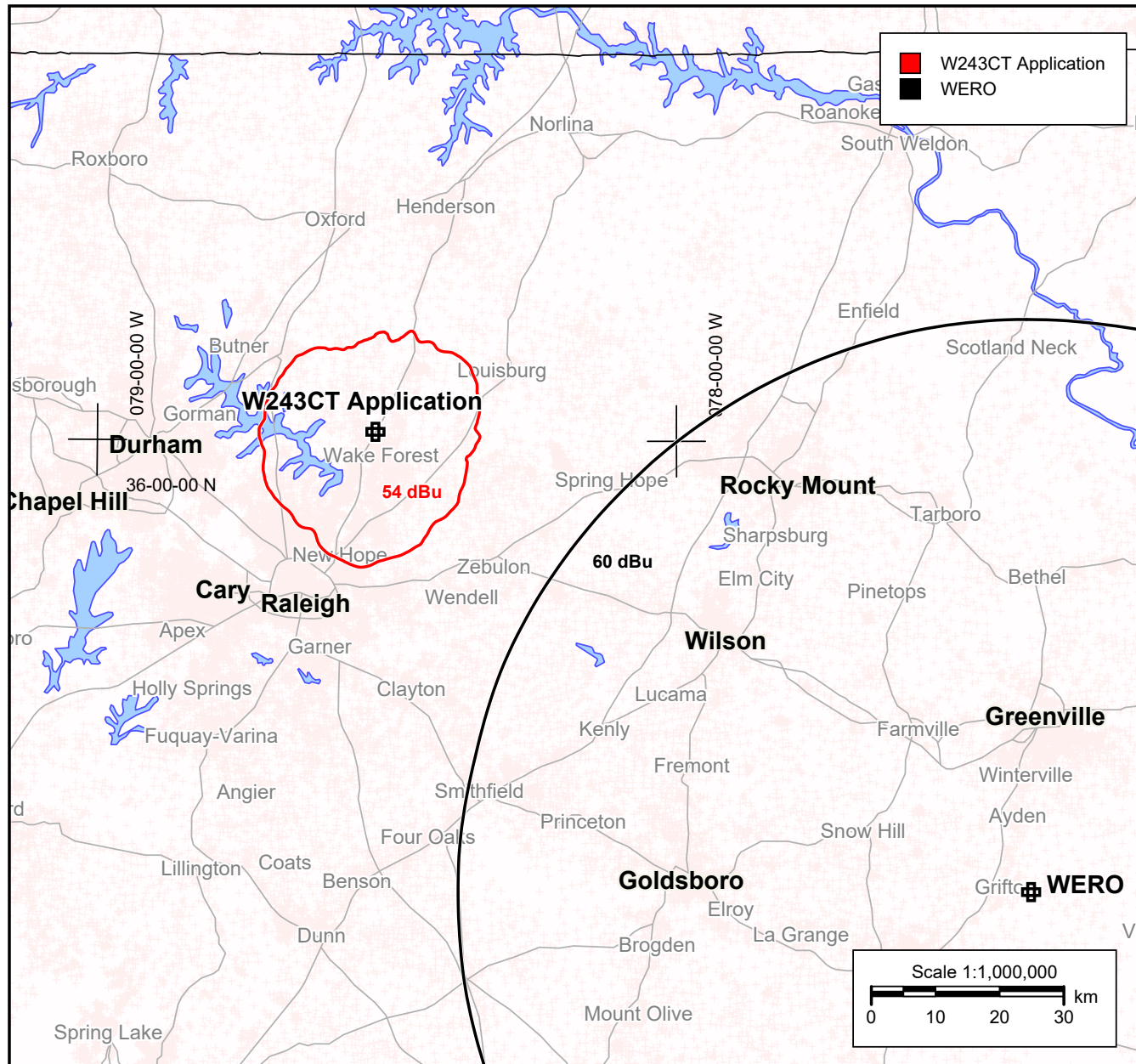
Aerial view of proposed translator tower site



Ex 13 C W243CT_A 74.1204 Compliance WERO Washington NC



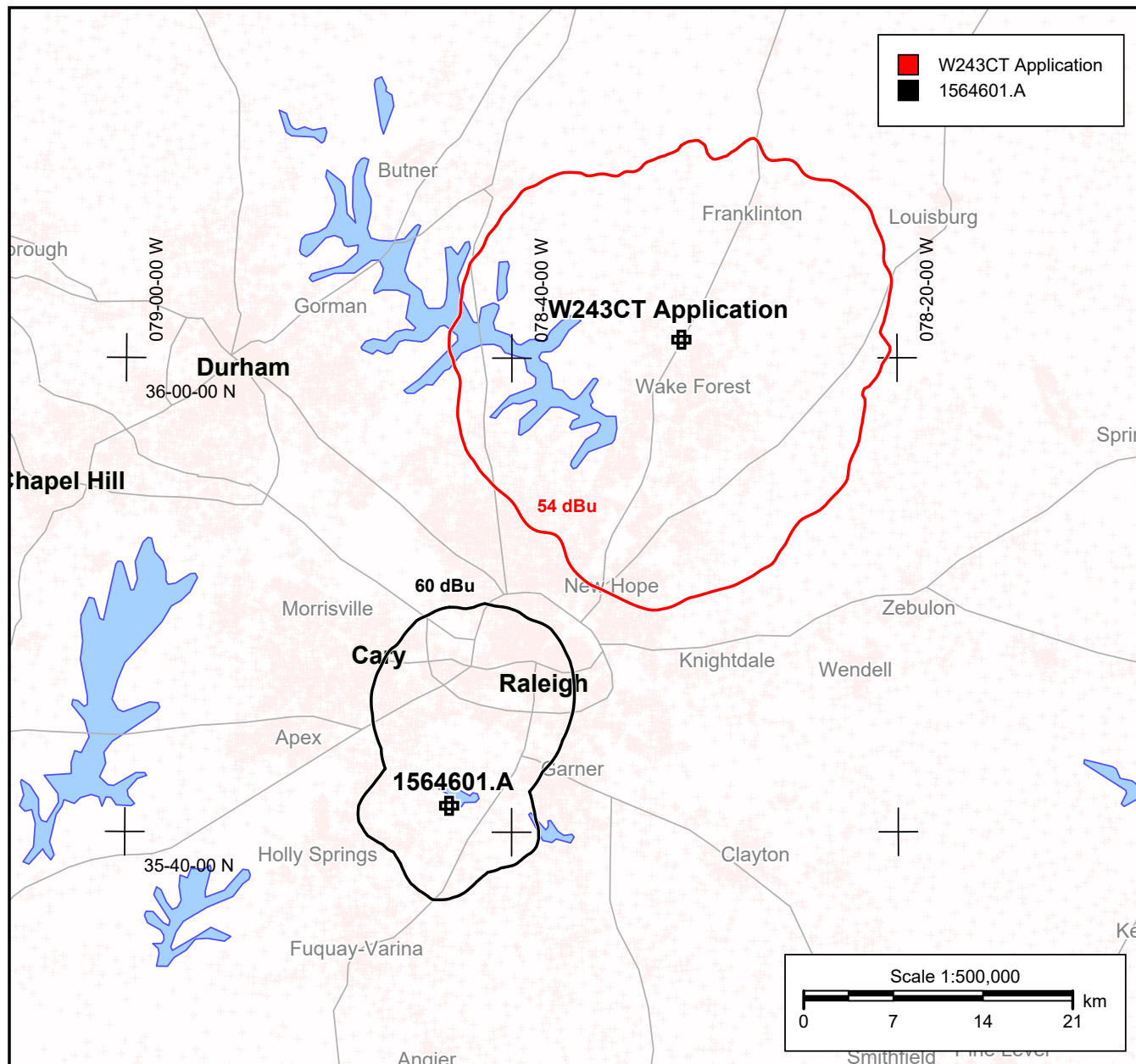
In accordance with 74.1204 of the rules there is no prohibited contour overlap from the proposed translator and the protected signal of WERO.



Ex 13 D W243CT_A 74.1204 Compliance BNPFT_20030317KBC



In accordance with 74.1204 of the rules there is no prohibited contour overlap from the proposed translator and the protected contour of the application shown.



1564601.A
Raleigh, NC
BNPFT20030317KBC
Channel: 225D
Latitude: 35-41-07 N
Longitude: 078-43-14 W
ERP: 0.25 kW
HAAT 165.1 m
Frequency: 92.9 MHz
AMSL Height: 270.0 m
Elevation: 107.0 m
Horiz. Pattern: Directional
Study Date: 8/17/2016

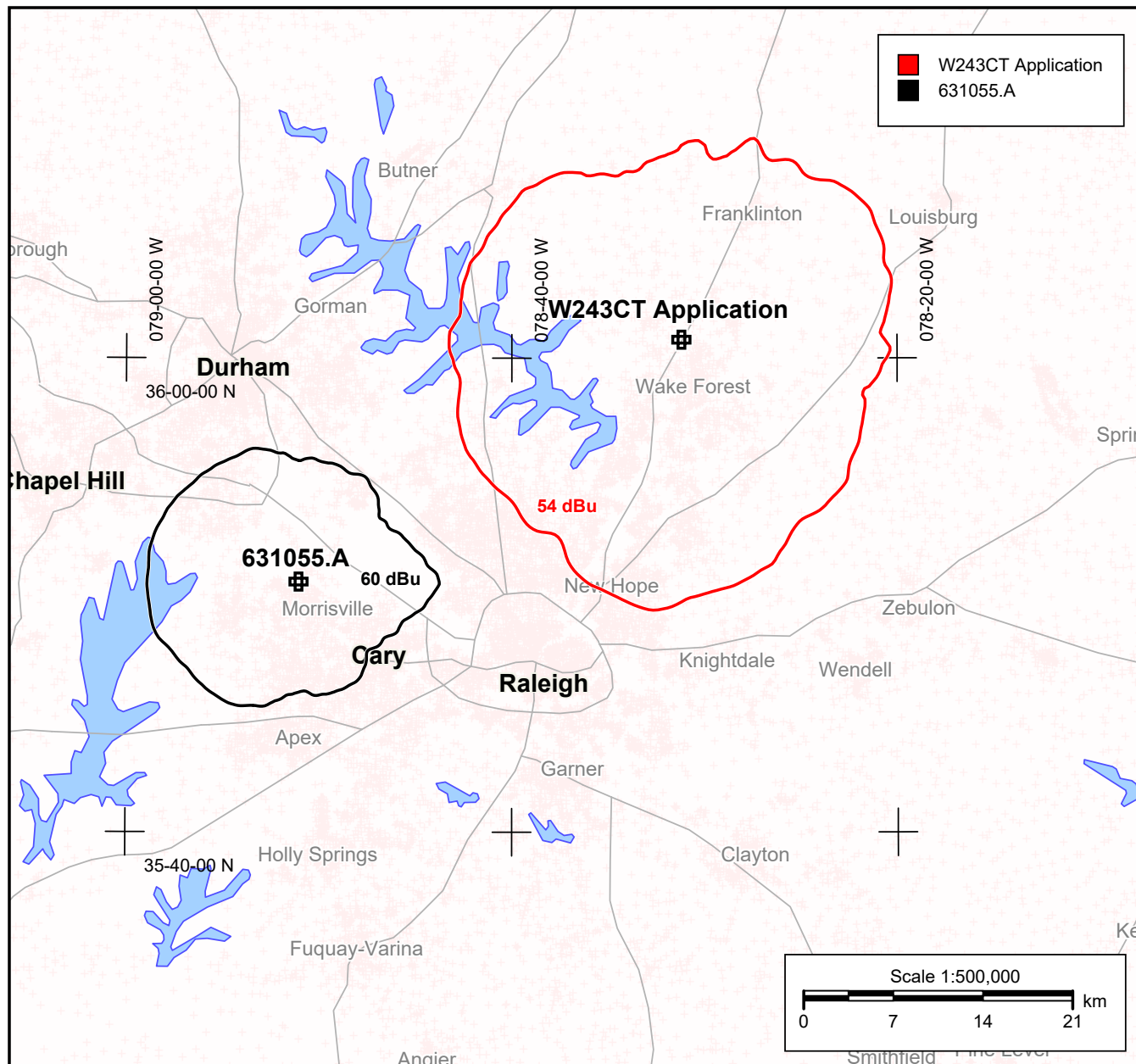
W243CT Application
WakeForest, NC

Channel: 226D
Latitude: 36-00-47 N
Longitude: 078-31-12 W
ERP: 0.25 kW
HAAT 83.43 m
Frequency: 93.1 MHz
AMSL Height: 193.0 m
Elevation: 116.36 m
Horiz. Pattern: Omni
Study Date: 8/17/2016

Ex 13 E W243CT_A 74.1204 Compliance BNPFT_20030314BRQ



In accordance with 74.1204 of the rules there is no prohibited contour overlap from the proposed translator and the protected signal of the application shown.



631055.A
Morrisville, NC
BNPFT20030314BRQ
Channel: 225D
Latitude: 35-50-34 N
Longitude: 078-51-03 W
ERP: 0.25 kW
HAAT 60.5 m
Frequency: 92.9 MHz
AMSL Height: 162.0 m
Elevation: 112.0 m
Horiz. Pattern: Omni
Study Date: 8/17/2016

W243CT Application
WakeForest, NC

Channel: 226D
Latitude: 36-00-47 N
Longitude: 078-31-12 W
ERP: 0.25 kW
HAAT 83.43 m
Frequency: 93.1 MHz
AMSL Height: 193.0 m
Elevation: 116.36 m
Horiz. Pattern: Omni
Study Date: 8/17/2016