

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of NEW YORK SPECTRUM HOLDING COMPANY, LLC, licensee of digital Low Power Television Station WNX-Y-LD, Channel 10 in New York, New York, in support of its Special Temporary Authority (STA) to specify a new site, antenna azimuth pattern and antenna radiation center above main sea level (RCAMSL).

It is proposed to mount a SAMCO 160 directional antenna at the 182.9-meter level of the existing 218-meter The Plaza Building located at 200 E 69th St, New York, NY 10021. The proposed site is located only 3.0 kilometers northeast of the licensed WNX-Y-LD site. The proposed effective radiated power will be 0.45 kW in the horizontal plane. Exhibit B is a map upon which the predicted 43 dBu service contour of the proposed facility is plotted.

Azimuth pattern data for the proposed SAMCO 160 directional antenna are included in Exhibit C.

Exhibit D contains the summary results from a TVStudy interference study, which was conducted using a cell size of 1.0 kilometer and an increment spacing of 1.0 kilometer. It concludes that the proposed WNX-Y-LD facility meets the Commission's de minimis interference

criteria to all co-channel and adjacent-channel post-repack full-power and Class A and LPTV/translator facilities.

A detailed power density calculation is provided in Exhibit E.

Since no change in the overall height or location of The Plaza building is proposed herein, the Federal Aviation Administration has not been notified of this application.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



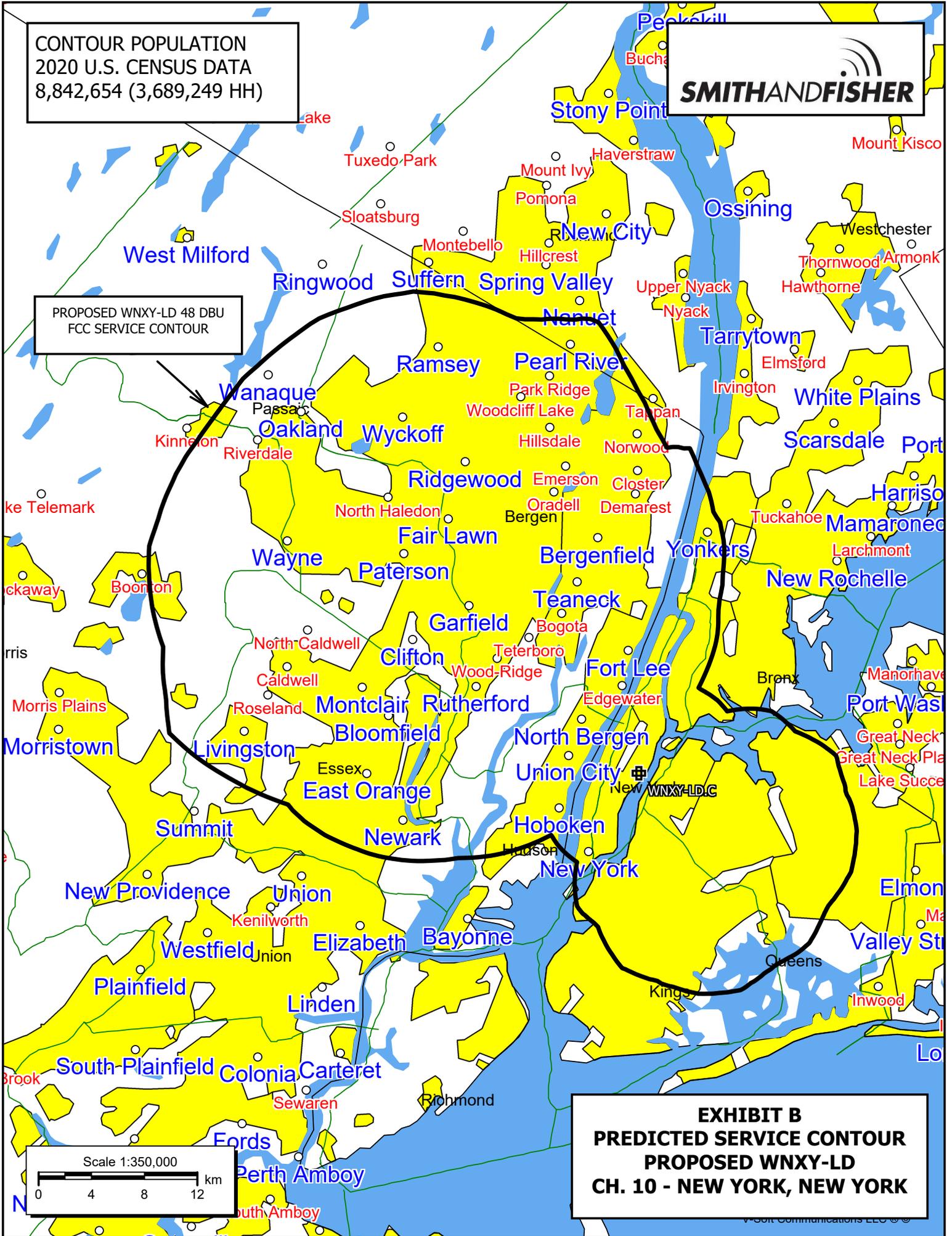
Kyle Fisher  
Senior Engineer  
Smith and Fisher, LLC.

July 15, 2023

CONTOUR POPULATION  
2020 U.S. CENSUS DATA  
8,842,654 (3,689,249 HH)



PROPOSED WNYX-LD 48 DBU  
FCC SERVICE CONTOUR



**EXHIBIT B**  
**PREDICTED SERVICE CONTOUR**  
**PROPOSED WNYX-LD**  
**CH. 10 - NEW YORK, NEW YORK**

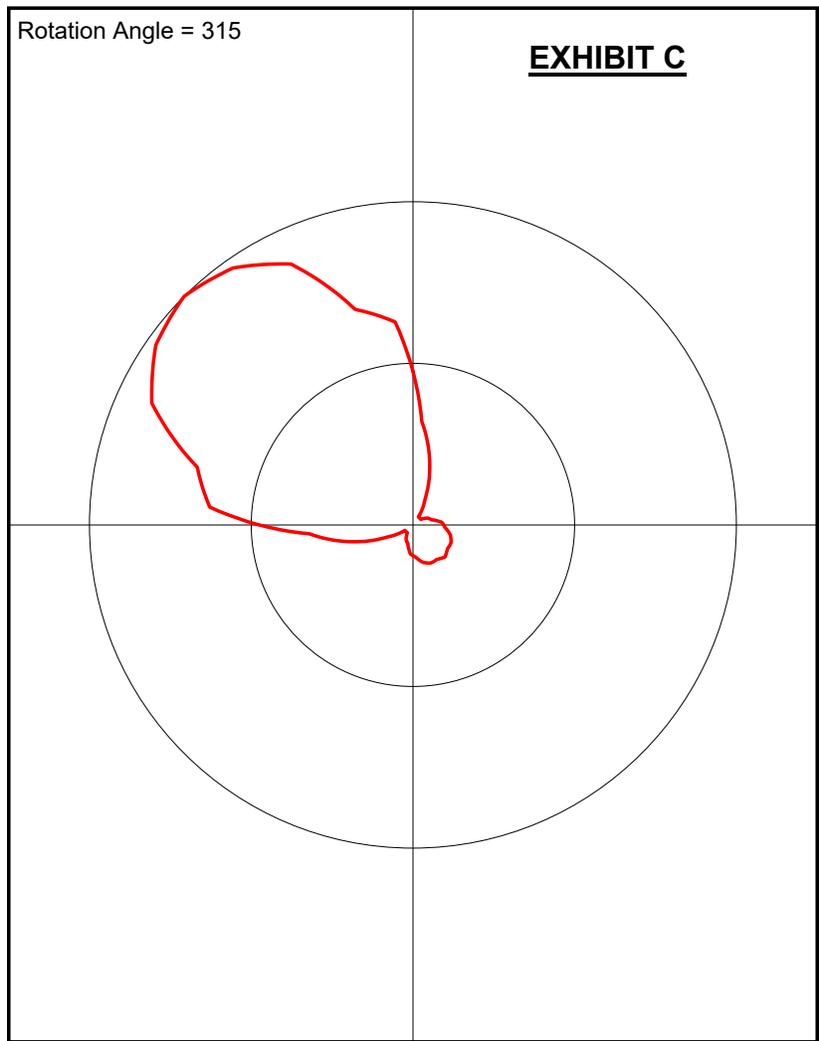
# Antenna Pattern

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	0.97
20.0	0.89
30.0	0.69
40.0	0.63
50.0	0.32
60.0	0.2
70.0	0.09
80.0	0.03
90.0	0.03
100.0	0.03
110.0	0.05
120.0	0.06
130.0	0.09
140.0	0.1
150.0	0.12
160.0	0.13
170.0	0.13
180.0	0.14
190.0	0.13
200.0	0.13
210.0	0.12
220.0	0.1
230.0	0.09
240.0	0.06
250.0	0.05
260.0	0.03
270.0	0.03
280.0	0.03
290.0	0.09
300.0	0.2
310.0	0.32
320.0	0.63
330.0	0.69
340.0	0.89
350.0	0.97

Rotation Angle = 315

**EXHIBIT C**



Study created: 2023.07.15 10:25:36

Study build station data: LMS TV 2023-07-12

Proposal: WNXV-LD D10 LD CP NEW YORK, NY  
File number: BLANK0000178116  
Facility ID: 29233  
Station data: User record  
Record ID: 33  
Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number
	Distance					
No	WEDN	D9	DT	LIC	NORWICH, CT	BLANK0000207355
	171.9 km					
No	W09CZ-D	D9	LD	LIC	ROSLYN, NY	BLANK0000004283
	24.9					
Yes	W09CZ-D	D9	LD	CP	ROSLYN, NY	BLANK0000159477
	0.0					
No	WBPH-TV	D9	DT	LIC	BETHLEHEM, PA	BLANK0000207702
	126.7					
No	W09DJ-D	D9-	DC	LIC	WILKES-BARRE, ETC., PA	BLANK0000113176
	163.1					
No	W09DJ-D	D9-	DC	CP	WILKES-BARRE, ETC., PA	BLANK0000211194
	163.1					
Yes	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLANK0000160005
	111.6					
No	W45DN-D	D10	LD	CP	WASHINGTON, DC	BLANK0000194086
	304.0					
No	W45DN-D	D10	LD	LIC	WASHINGTON, DC	BLANK0000199355
	304.0					
No	WWDP	D10	DT	LIC	NORWELL, MA	BLANK0000059580
	279.7					
No	WHTX-LD	N10z	TX	LIC	SPRINGFIELD, MA	BLTVL19950228IL
	154.3					
No	WSJT-LD	D10	LD	LIC	ATLANTIC CITY, NJ	BLANK0000080472
	137.7					
No	DDWBPN-LP	N10z	TX	APP	BINGHAMTON, NY	BLTVL20000824ADL
	218.7					
No	WHEC-TV	D10	DT	LIC	ROCHESTER, NY	BMLCDT20111228ABJ
	398.6					
No	WHTM-TV	D10	DT	LIC	HARRISBURG, PA	BLANK0000176940
	257.4					
No	W10CP-D	D10	LD	LIC	TOWANDA, PA	BLDTV20090806AAV
	233.9					

No	WWBT	D10	DT	LIC	RICHMOND, VA	BLANK0000185198
	473.8					
No	WVER	D10	DD	LIC	RUTLAND, VT	BLANK0000123122
	329.0					
No	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLANK0000125118
	180.1					
No	WPIX	D11	DT	LIC	NEW YORK, NY	BLANK0000163151
	3.0					
No	WBRE-TV	D11	DT	LIC	WILKES-BARRE, PA	BLCDT20051123AJX
	167.0					

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D10  
Mask: Full Service  
Latitude: 40 46 2.30 N (NAD83)  
Longitude: 73 57 40.40 W  
Height AMSL: 207.9 m  
HAAT: 0.0 m  
Peak ERP: 0.450 kW  
Antenna: Sam 160 @ 315 0.0 deg  
Elev Pattn: Generic

48.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.102 kW	161.6 m	29.3 km
45.0	0.000	197.8	8.1
90.0	0.004	192.7	15.2
135.0	0.009	187.1	18.4
180.0	0.004	193.2	15.2
225.0	0.000	206.0	8.2
270.0	0.102	195.1	31.8
315.0	0.450	192.5	42.4

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m Computed HAAT: 191 m

Distance to Canadian border: 394.7 km

Distance to Mexican border: 2677.6 km

Conditions at FCC monitoring station: Laurel MD  
Bearing: 234.8 degrees Distance: 301.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 278.8 degrees Distance: 2630.8 km

Study cell size: 1.00 km  
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

----- Below is IX received by proposal BLANK0000178116 -----

Proposal receives 68.80% interference from scenario 1  
Proposal receives 69.10% interference from scenario 2  
No IX check failures found.

POWER DENSITY CALCULATION

PROPOSED WNYX-LD STA  
CHANNEL 10 – NEW YORK, NEW YORK

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this New York City facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 0.45 kW, an antenna radiation center 183 meters above ground, and assuming a vertical relative field value of 40% at the steeper elevation angles for the proposed antenna, maximum power density two meters above ground of 0.0011 mW/cm<sup>2</sup> is calculated to occur near the base of the building. Since this is 0.55 percent of the 0.20 mW/cm<sup>2</sup> reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 10 (192-198 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.