TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF LICENSE
FM TRANSLATOR STATION W296BT
NEW YORK, NEW YORK

Technical Statement

This Technical Exhibit was prepared on behalf of FM translator station W296BT, New York, New York, in support of an application for modification of license. The instant application proposes a change in channel from Channel 293 to Channel 292. Also proposed are a change in transmitter location and proposed facilities.

Fill-In Translator Compliance

Figure 1 demonstrates that the FM translator's 54 dBu contour does not extend beyond the 54 dBu contour of primary station WLTW(FM) on channel 294B at New York, New York.

Minor Change Application

The proposal is classified as a minor change pursuant to Section 74.1233 of the FCC Rules. See Figure 2 for 60 dBu (1 mV/m) contour comparison.

Predicted Coverage Contours

The predicted coverage contours shown herein were calculated in accordance with Section 73.313 of the FCC Rules. The average terrain elevations from 3 to 16 km from the proposed site were computed using the U.S.G.S. 30-second terrain database. The distances to the predicted coverage contours were determined using the average elevations of radials spaced every 1-degrees of azimuth. The antenna radiation center height above average terrain and the ERP in each radial direction were used in

conjunction with the propagation prediction curves of Section 73.333 to determine the distances to the contour.

Allocation Considerations

Figure 3 summarizes the allocation study for the proposed facility. It is noted that the IF related separation requirements are not applicable to the proposal pursuant to Section 74.1204(g) of the FCC Rules as the ERP will be less than 100 Watts. The tabulation at Figure 3 lists the results of a numerical analysis of the potential for contour overlap for all nearby co-channel and first-, second-, and third-adjacent-channel facilities. For the purposes of the numerical study, the maximum HAAT and maximum ERP values were used in determining the maximum distance in any direction to the predicted coverage and interfering contours.

As indicated in Figure 3, there is predicted 97 dBu contour overlap with respect to second-adjacent channel station, WQXR-FM, Newark, NJ (Channel 290B1). A waiver of Section 74.1204 of the FCC Rules is requested to the extent necessary since it is demonstrated that no actual interference will occur to WQXR-FM. A contour analysis with respect to WQXR-FM is shown in Figure 4. From the contour analysis, there will be a signal level of no less than 105.9 dBu from the WQXR-FM facility at the proposed W296BT transmitter site. The corresponding interference contour with respect to WQXR-FM will be no less than (105.9 dBu + 40 dB =) 145.9 dBu. The predicted interfering 145.9 dBu contour of the proposed W296BT would extend no more than 3.7 meters from the proposed W296BT antenna in any direction. Since the transmitting antenna is located 271 m above ground level (AGL) on top of a building that is 226 m in height, the interfering contour will not come close to reaching roof level, ground level or any other structure other than the tower itself. Therefore, there will be no predicted interference to the WQXR-FM facility.

Figure 3 indicates that there are short-spacings with respect to the following stations: WBLI on channel 291B at Patchogue, NY; a pending translator application for channel 292 at Midland Park, NJ; WKMK on channel 292A at Eatontown,

NJ; and WFAF on channel 292A at Mount Kisco, NY. However, as demonstrated in Figure 5, there would be no actual contour overlap based on the provisions of Section 74.1204.

As indicated in Figure 3, there is predicted 94 dBu contour overlap with respect to second-adjacent channel station, WLTW(FM), New York, NY (Channel 294B). A waiver of Section 74.1204 of the FCC Rules is requested to the extent necessary since it is demonstrated that no actual interference will occur to WLTW(FM). A contour analysis with respect to WLTW(FM) is shown in Figure 6. From the contour analysis, there will be a signal level of no less than 115.9 dBu from the WLTW(FM) facility at the proposed W296BT transmitter site. The corresponding interference contour with respect to WLTW(FM) will be no less than (115.9 dBu + 40 dB =) 155.9 dBu. The predicted interfering 155.9 dBu contour of the proposed W296BT would extend no more than 1.2 meters from the proposed W296BT antenna in any direction. Since the transmitting antenna is located 271 m above ground level (AGL) on top of a building that is 226 m in height, the interfering contour will not come close to reaching roof level, ground level or any other structure other than the tower itself. Therefore, there will be no predicted interference to the WLTW(FM) facility.

Based on the foregoing, it is concluded that actual interference would not occur with respect to either of the WQXR-FM or the WLTW(FM) facilities. And as demonstrated in Figure 5, the proposal is otherwise fully compliant with the contour overlap requirements of Section 74.1204 of the FCC Rules.

Environmental Considerations

The proposal is categorically excluded from environmental processing, as an existing tower/building structure is to be employed, and the proposal complies with the FCC Rules concerning human exposure to radio frequency (RF) energy. The proposed transmitting antenna will be mounted on the side of the tower structure on top of the

Conde Nast Building (4 Times Square).[1] The proposal would not exceed 0.05% of the RF exposure limit for general population/uncontrolled environments for the frequency proposed at ground level. The calculation of RF energy at 2-m above ground was made under the procedures of OET Bulletin No. 65.[2] The formula employed is as follows:

$$S = \frac{(33.4)F^2P}{R^2}$$

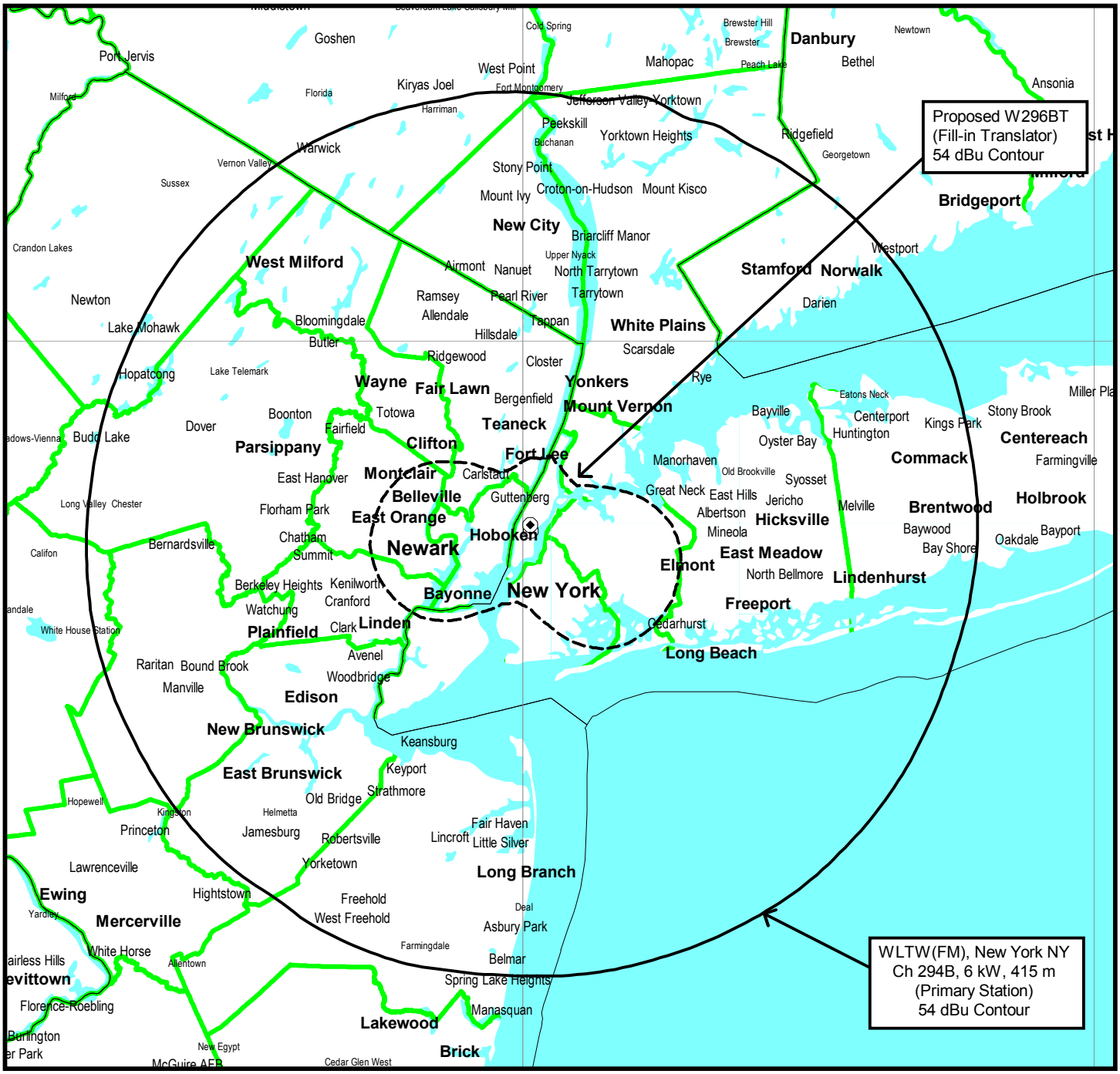
where, S = power density in uW/cm^2, F = relative field factor at the angle to the calculation point, P = the total effective radiated power relative to a dipole in watts, and R = distance from the antenna radiation center to the calculation point in meters. Based on the conservative assumption of a relative field factor of 1.0 with a total effective radiated power of 198 watts, and an antenna radiation center height above ground of 271 m, the calculated power density will not exceed 0.1 uW/cm^2. Therefore, the calculated RF exposure at 2 m above ground will not exceed 0.05% of the limit of 200 uW/cm^2 for general population / uncontrolled environments.

In addition, it is noted that the proposal will not result in an RF energy level exceeding 1.79% of the RF exposure limit for general population/uncontrolled environments for the frequency proposed at the uppermost roof level of the Conde Nast Building based on the same calculation assumptions as above. The uppermost roof level is located at 226 m AGL and the proposed transmitting antenna will be located at 45 m above the uppermost roof level.

[1] The FCC antenna structure registration number is 1238745.
[2] FCC OET Bulletin No. 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields* (Edition 97-01, August 1997).

Access to the roof of the building and the tower mast is strictly controlled by the building management. In the event that personnel are required to climb the tower structure in close vicinity to the proposed antenna, the proposed FM translator transmissions shall be reduced or terminated as necessary to prevent RF exposure above the FCC recommended limits.

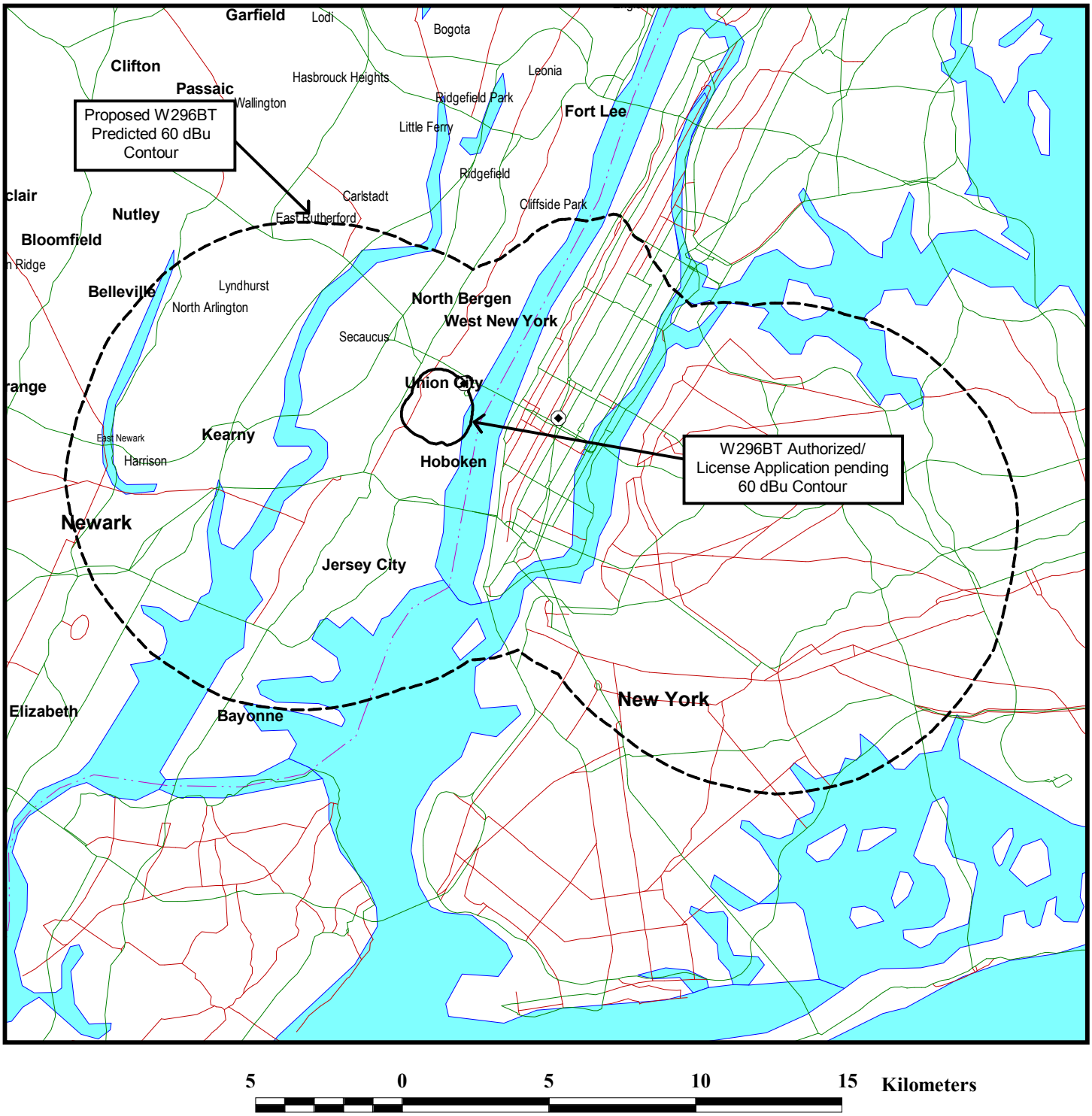
Figure 1



FILL-IN TRANSLATOR COVERAGE COMPLIANCE MAP

FM TRANSLATOR STATION W296BT
NEW YORK, NEW YORK
CH 292 0.099 KW (MAX-DA) 286 M AMSL

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



FCC PREDICTED 60 DBU COVERAGE COMPARISON

FM TRANSLATOR STATION W296BT
NEW YORK, NEW YORK
CH 292 0.099 KW (MAX-DA) 286 M AMSL

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

FM Contour Study

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

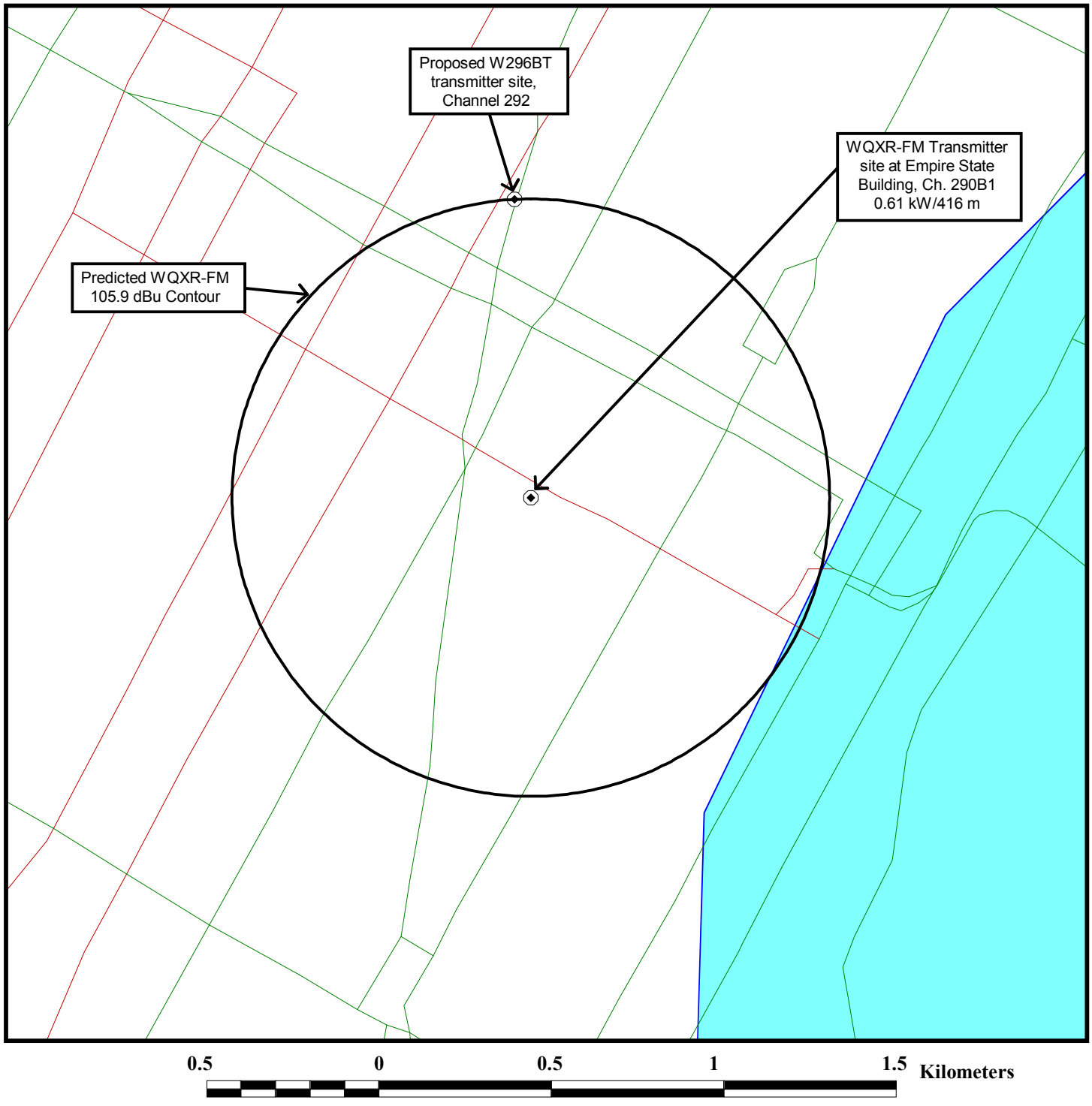
Channel: 292 ***Coordinates:*** 040-45-22 073-59-12 (NAD 27) ***ERP:*** 0.099 kW ***Max. HAAT:*** 286 m ***Considering Only Interference Caused***

Comment: Proposed W296BT

Callsign	*Chan.*	*Service*	*Status*	*Freq.*	*City*			*State*	*Co.*	*Rec.*	*Latitude*	*Dist. (km)*	*Sep. (km)*	*Spac. (km)*
Facility ID	*ARN*			*Class*	*DA*	*73.215*	*ERP (kW)*	*HAAT (m)*			*Longitude*	*Bear. (deg)*	*Comment*	
WPLJ	238	FM	LIC	95.5	NEW YORK			NY	US	C	40-44-54	0.87	15	-14.13
73887	BMLH	20050216ACG		B	N	N	6.7	408			073-59-10	176.9	**SHORT**	Note 1
WQXR-FM	290	FM	LIC	105.9	NEWARK			NJ	US	C	40-44-54	0.87	39.21	-38.34
46978	BMLH	20091009AAI		B1	N	N	0.61	416			073-59-10	176.9	**SHORT**	Note 2
WQXR-FM 57.0 dBu desired distance: 38.2 km							Proposed 97.0 dBu undesired distance: 1.0 km							
WBLI	291	FM	CP	106.1	PATCHOGUE			NY	US	C	40-50-32	80.44	104.24	-23.8
37235	BPH	20080813AEG		B	D	N	49	152			073-02-25	82.84	**SHORT**	Note 3
WBLI 54.0 dBu desired distance: 67.3 km							Proposed 48.0 dBu undesired distance: 36.9 km							
WBLI	291	FM	LIC	106.1	PATCHOGUE			NY	US	C	40-50-32	80.44	104.24	-23.8
37235	BMLH	20030521AEF		B	D	N	49	152			073-02-25	82.84	**SHORT**	Note 3
WBLI 54.0 dBu desired distance: 67.3 km							Proposed 48.0 dBu undesired distance: 36.9 km							
NEW	292	FX	APP	106.3	MIDLAND PARK			NJ	US	C	40-59-31	29.26	61.39	-32.13
143086	BNPFT	20030317EZV		D	N	N	0.01				074-08-29	333.67	**SHORT**	Note 3
NEW 60.0 dBu desired distance: 5.4 km							Proposed 40.0 dBu undesired distance: 56.0 km							
WKMK	292	FM	LIC	106.3	EATONTOWN			NJ	US	C	40-16-41	53.68	81.04	-27.36
72324	BMLH	20060524ABV		A	N	Y	1.1	161			074-04-51	188.55	**SHORT**	Note 3
WKMK 60.0 dBu desired distance: 25.0 km							Proposed 40.0 dBu undesired distance: 56.0 km							
WFAF	292	FM	LIC	106.3	MOUNT KISCO			NY	US	C	41-11-09	54.33	80.28	-25.95
70274	BLH	20061030ANH		A	N	N	0.98	135.1			073-40-41	28.37	**SHORT**	Note 3
WFAF 60.0 dBu desired distance: 24.3 km							Proposed 40.0 dBu undesired distance: 56.0 km							
W296BT	293	FX	APP	106.5	NEW YORK			NY	US	C	40-45-22	0	38.42	-38.42
155888	BMPFT	20100812ACG		D	C	N	0.025				073-59-12	90	**SHORT**	Note 4
W296BT 60.0 dBu desired distance: 12.4 km							Proposed 54.0 dBu undesired distance: 26.0 km							
WLTW	294	FM	LIC	106.7	NEW YORK			NY	US	C	40-44-54	0.87	68.01	-67.14
56571	BLH	19940203KA		B	N	N	6	415			073-59-10	176.9	**SHORT**	Note 5
WLTW 54.0 dBu desired distance: 66.6 km							Proposed 94.0 dBu undesired distance: 1.4 km							

Note 1: Intermediate frequency (IF) separation not applicable pursuant to Section 73.1204(g) as the ERP will be less than 100 Watts.
Note 2: A waiver of the contour overlap requirements is requested. It is demonstrated that no actual interference will occur with respect to WQXR-FM. See Technical Statement and Figure 4.
Note 3: Proposal complies with the contour overlap provisions of Section 74.1204. See Technical Statement and Figure 5.
Note 4: Applicant's current facility record.
Note 5: A waiver of the contour overlap requirements is requested. It is demonstrated that no actual interference will occur with respect to WLTW. See Technical Statement and Figure 6.

Figure 4

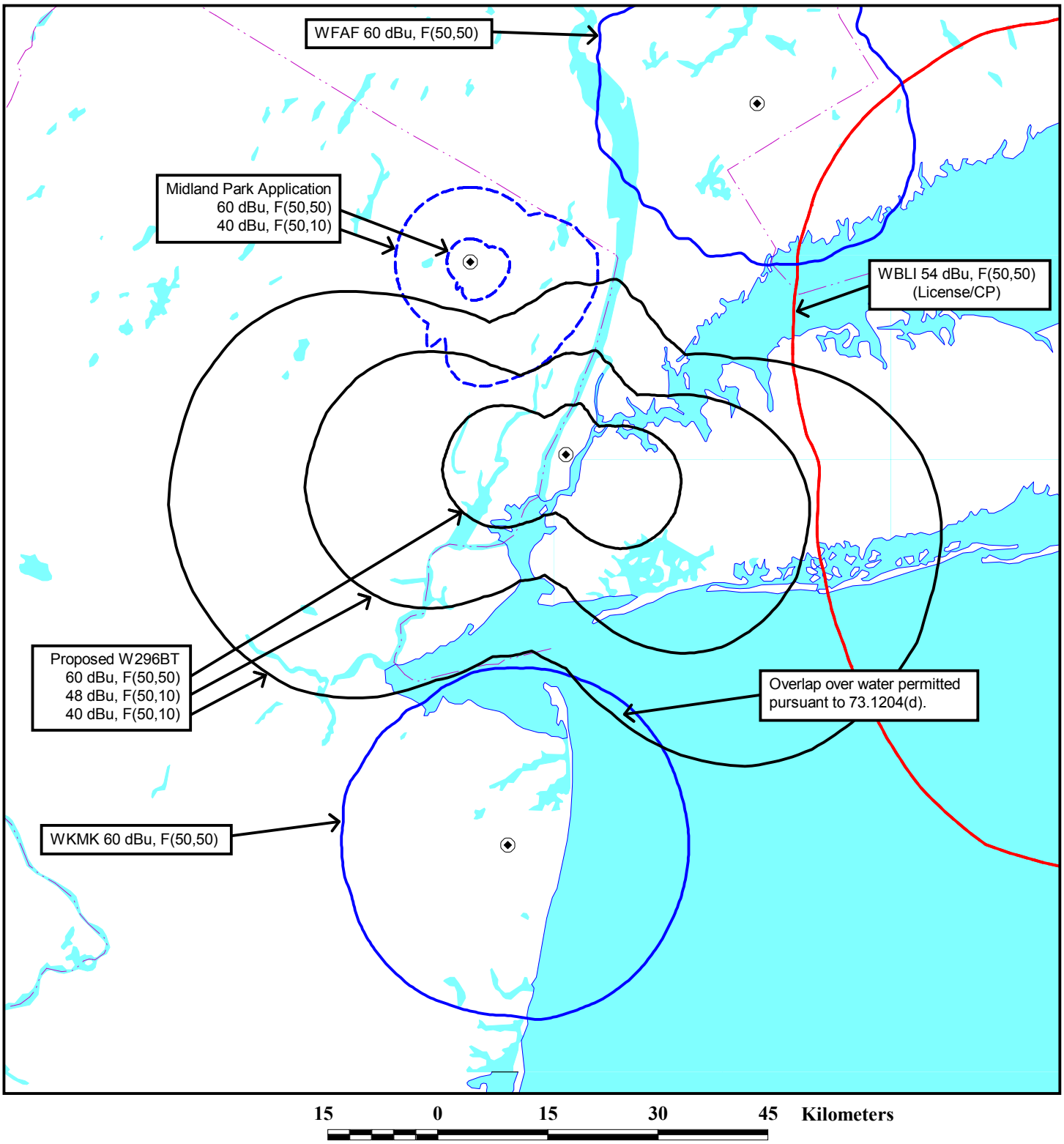


FCC PREDICTED 105.9 DBU CONTOUR OF WQXR-FM

FM TRANSLATOR STATION W296BT
NEW YORK, NEW YORK
CH 292 0.099 KW (MAX-DA) 286 M AMSL

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 5

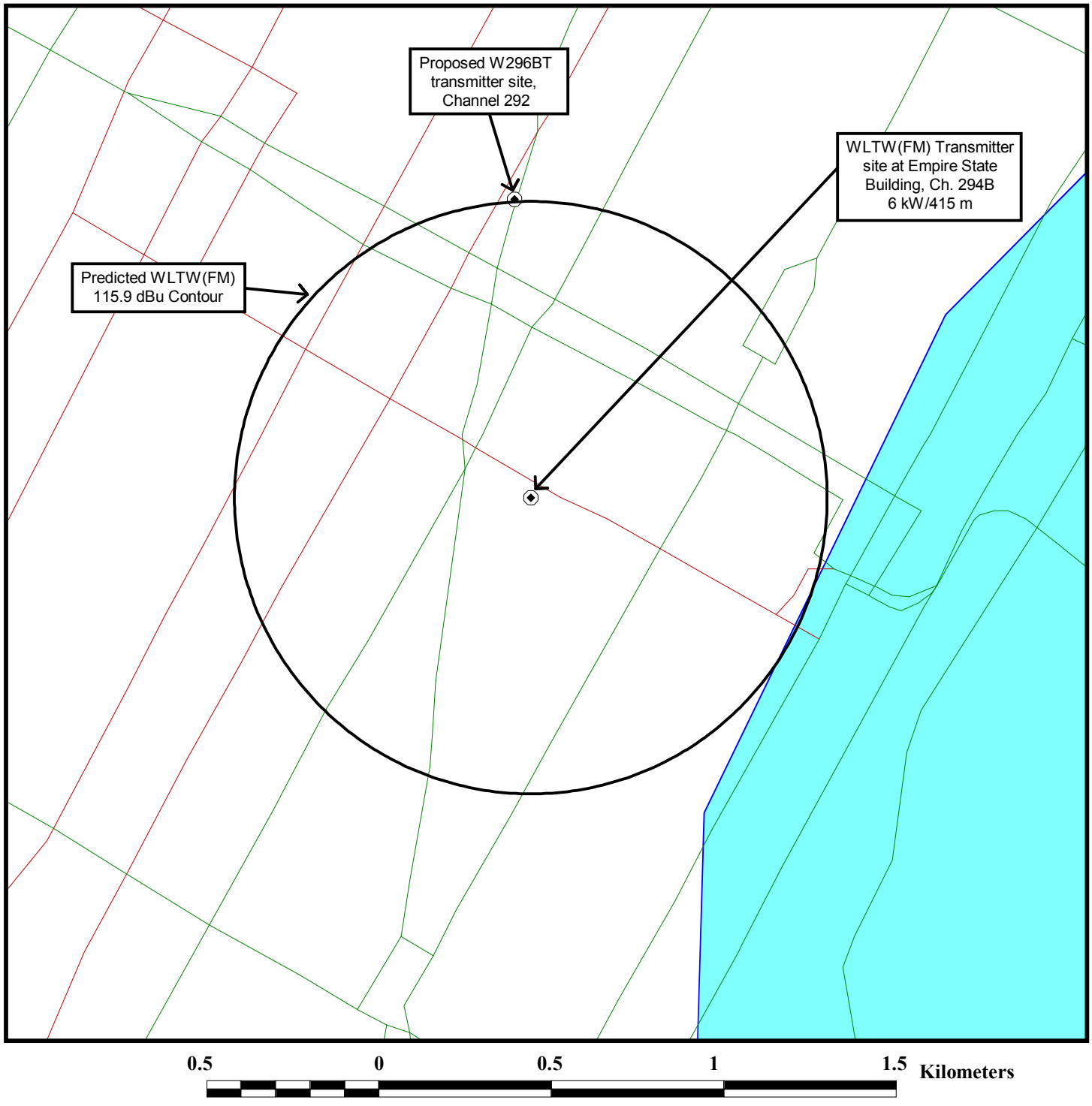


COMPLIANCE WITH SECTION 74.1204

FM TRANSLATOR STATION W296BT
NEW YORK, NEW YORK
CH 292 0.099 KW (MAX-DA) 286 M AMSL

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 6



FCC PREDICTED 115.9 DBU CONTOUR OF WLTW

FM TRANSLATOR STATION W296BT
NEW YORK, NEW YORK
CH 292 0.099 KW (MAX-DA) 286 M AMSL

du Treil, Lundin & Rackley, Inc. Sarasota, Florida