



CONSOLIDATED ENGINEERING EXHIBITS W252BT, Freeport ME – FIN 145374

This exhibit is prepared on behalf of Bob Bittner Broadcasting, Inc., licensee of WJIB, Cambridge, MA. Applicant is under common ownership with Blue Jey Broadcasting, licensee of W252BT, Freeport, ME. Bob Bittner Broadcasting has granted rebroadcast permission to W252BT for WJIB.

This exhibit modifies application BPFT-20160129AAE by specifying a new channel (267), directional antenna and power to eliminate a mutual exclusivity with two other applicants who had specified channel 291.

The proposed new transmitter location is 118.64 miles from the existing W252BT location specified in license BLFT-20130422AAA.

Overview

Applicant proposes to relocate W252BT to the existing tower of WJIB, Cambridge, MA, where it will operate using 250 watts on channel 267 using a PSI FML-1 custom directional antenna mounted at 85 m AGL. **Figure 5** is the radiation pattern of the proposed antenna.

Allocation Study

This application complies with all spacing requirements of Section 74.1204 of the Commission's rules.

Figure 1 demonstrates that the 60 dBu contour of the translator is fully contained within a 25-mile radius of the WJIB transmitter site and within the 2 mV/m daytime contour of WJIB.

Figure 2 demonstrates spacing to the following stations and applications requiring consideration: co-channel application W226BU, Milford, MA (BMPFT-20160129AJA); co-channel W268AM, Gloucester, MA (BLFT-20081015ACI); first-adjacent WGIR-FM, Manchester, NH (BLH-19910718KC) and first-adjacent WWBB, Providence, RI (BLH-20151123CHI). **Figure 4** provides detail of the non-overlap of WGIR-FM's (F50,50) 54 dBu contour and the proposed W252BT (F50,10) 48 dBu contour.

Figure 3 demonstrates spacing to the following stations requiring consideration: second-adjacent WBWL, Lynn, MA (BLH-20150803ABJ) and third-adjacent WZLX, Boston, MA (BLH-19920927KD). WBWL's 92.6 dBu contour intersects the proposed W252BT transmitter site; WZLX's 98.1 dBu contour intersects the proposed W252BT transmitter site. Using the methodology outlined in *Living Way*, we consider the 132.6 dBu (92.6 + 40 dB) free-space contour of W252BT's proposed operation. That contour extends 26 meters from the W252BT antenna, which will be mounted at 85 meters above ground level. **Figure 6** is an aerial image showing there are no tall buildings adjacent to the proposed W252BT site that could enter into that 26-meter radius around the antenna. The building surrounding the proposed site is a self-storage building with no occupants. Under section 74.1204 (d) of the Commission's rules, it is thus demonstrated that no actual interference will occur to stations WBWL or WZLX.

There are no nearby stations on channels 213 or 214 requiring intermediate-frequency protection.

Environmental

The proposed translator station will be located on the existing tower of AM station WJIB, Cambridge, MA. No new construction is proposed.

Applicant certifies that access to the tower is restricted by a fence or other barrier that will preclude casual or inadvertent access to the site and that warning signs are posted at appropriate intervals describing the potential for RF exposure.

A study performed using the FCC's RF Worksheet #1 in Appendix A finds that the calculated power density would not exceed 0.24% of the maximum permissible exposure value of 0.2 mW/cm² in the vicinity of the base of the antenna supporting structure. As a result, the proposed operation of W252BT would be excluded from evaluation of total radiofrequency radiation levels at the proposed site.

Licensee will reduce power or cease operation as necessary to ensure personal safety if work must be performed at the tower site.

Scott Fybush
Technical Consultant
Fybush Media
92 Bonnie Brae Ave
Rochester NY 14618
585 442 5411
scott@fybush.com

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Figure 1 -- Proposed Coverage Contour

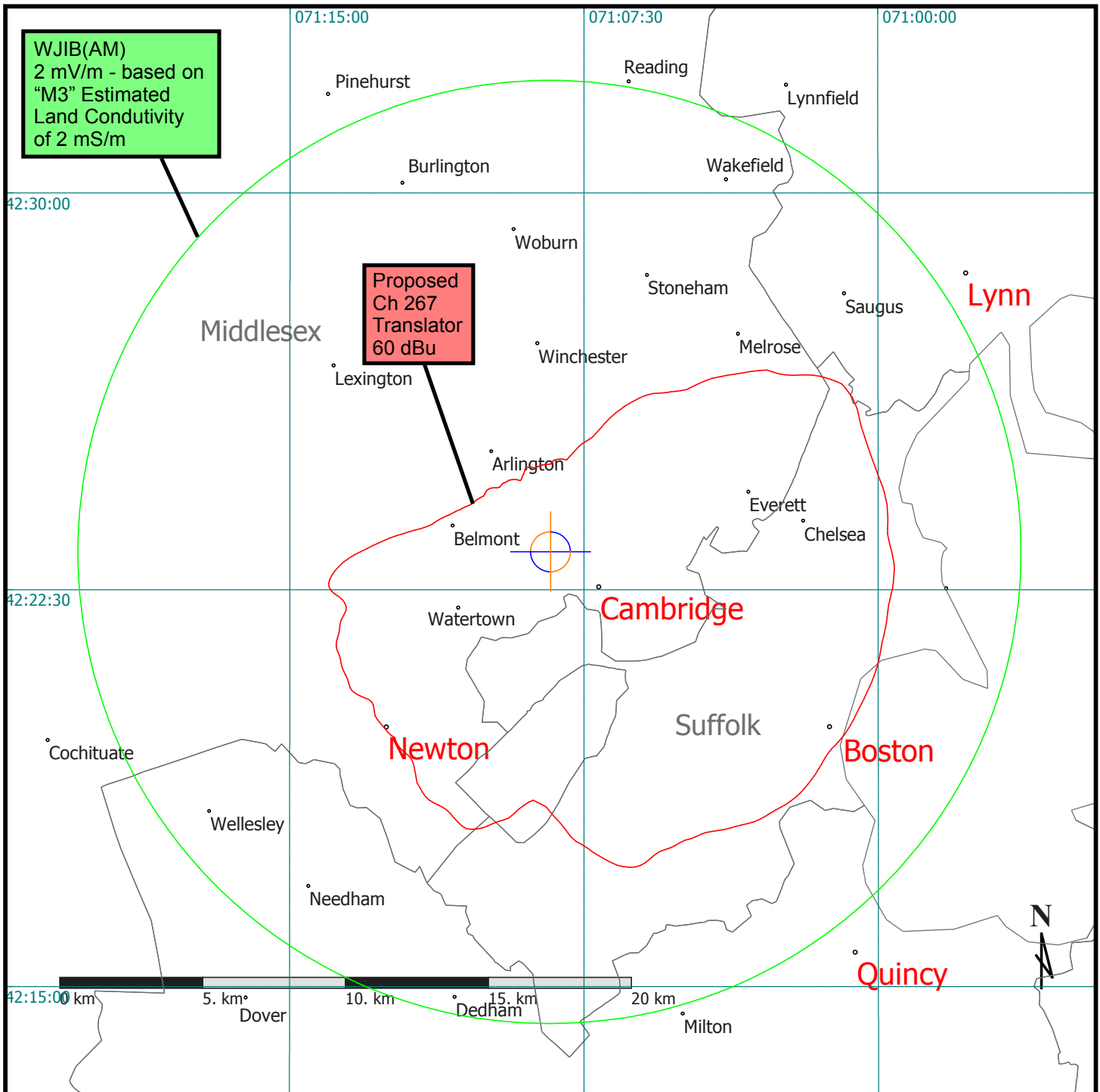


Figure 2 -- Co-Channel and First-Adjacent Interference Study

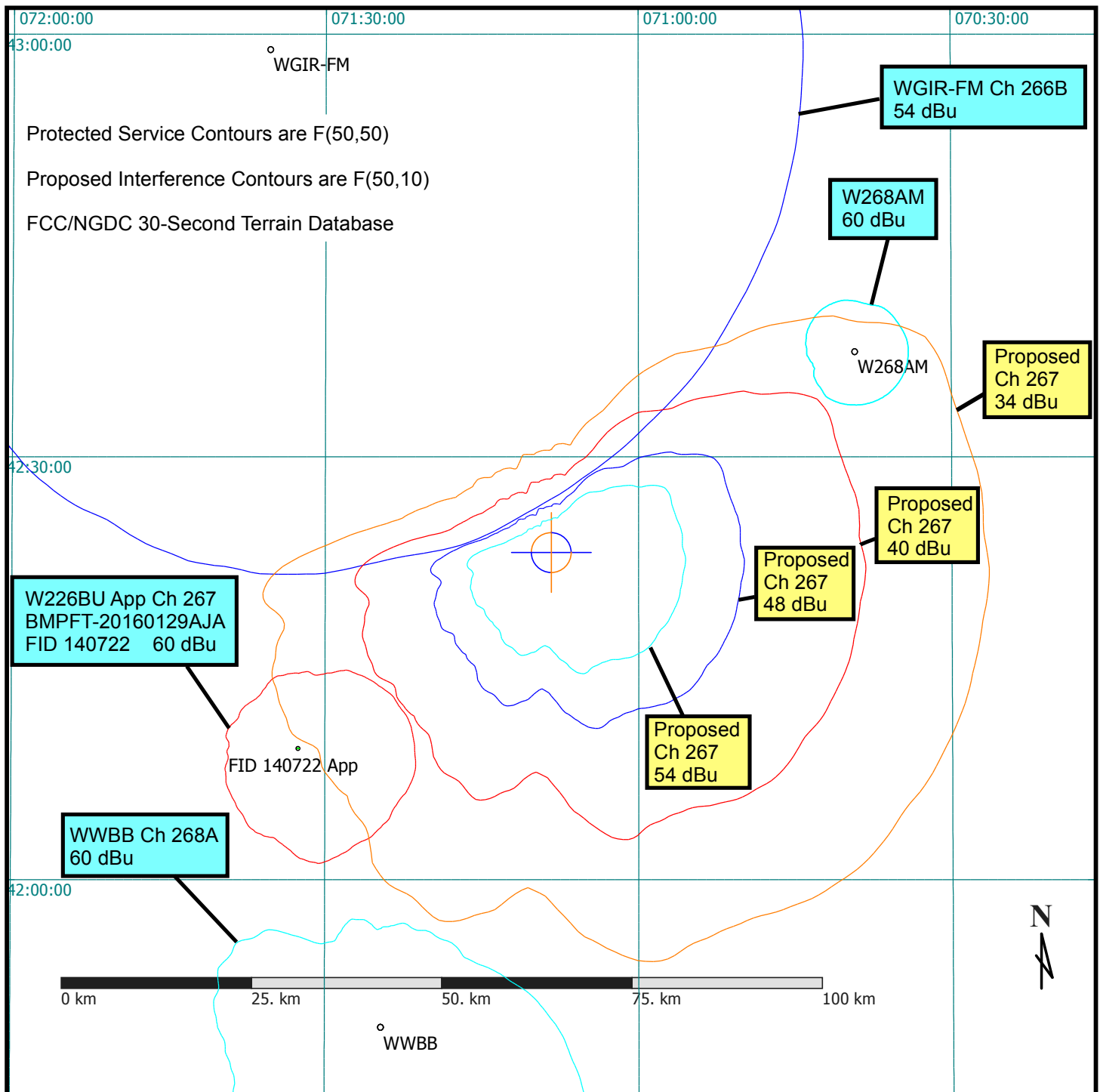


Figure 3 -- Second- and Third-Adjacent Interference Study

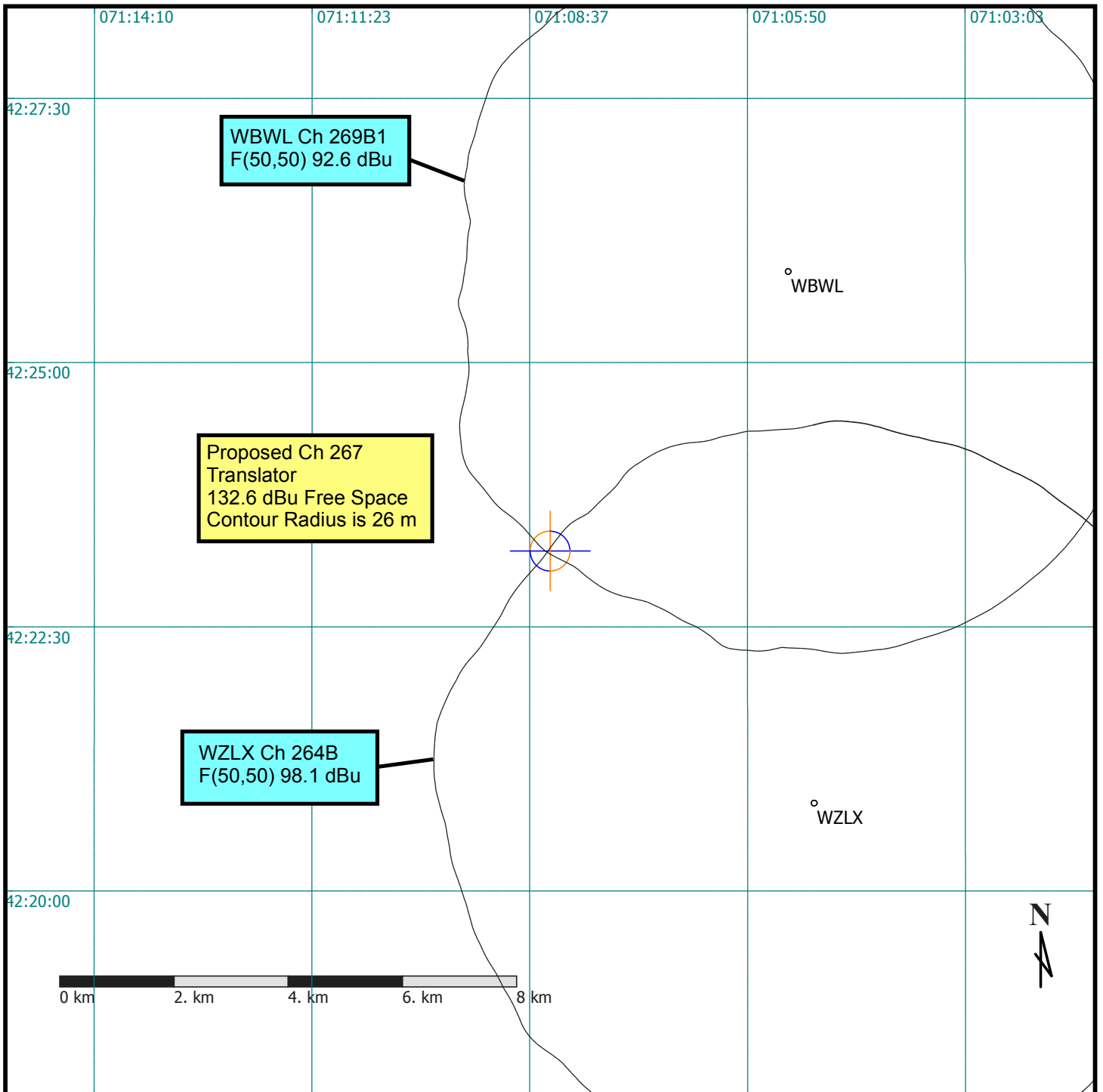


Figure 4 -- Detail of Clearance from WGIR-FM and Facility ID 140722

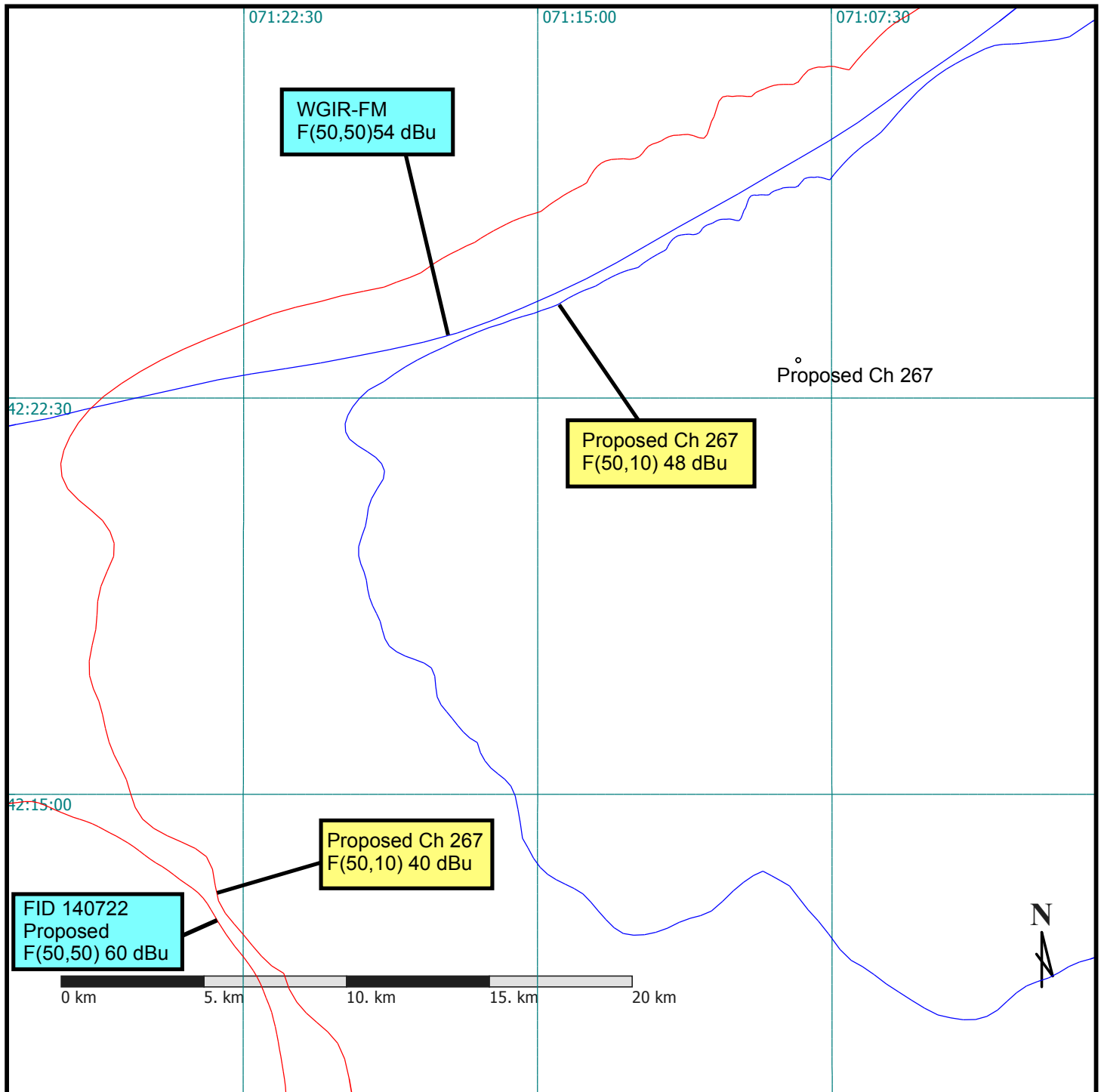
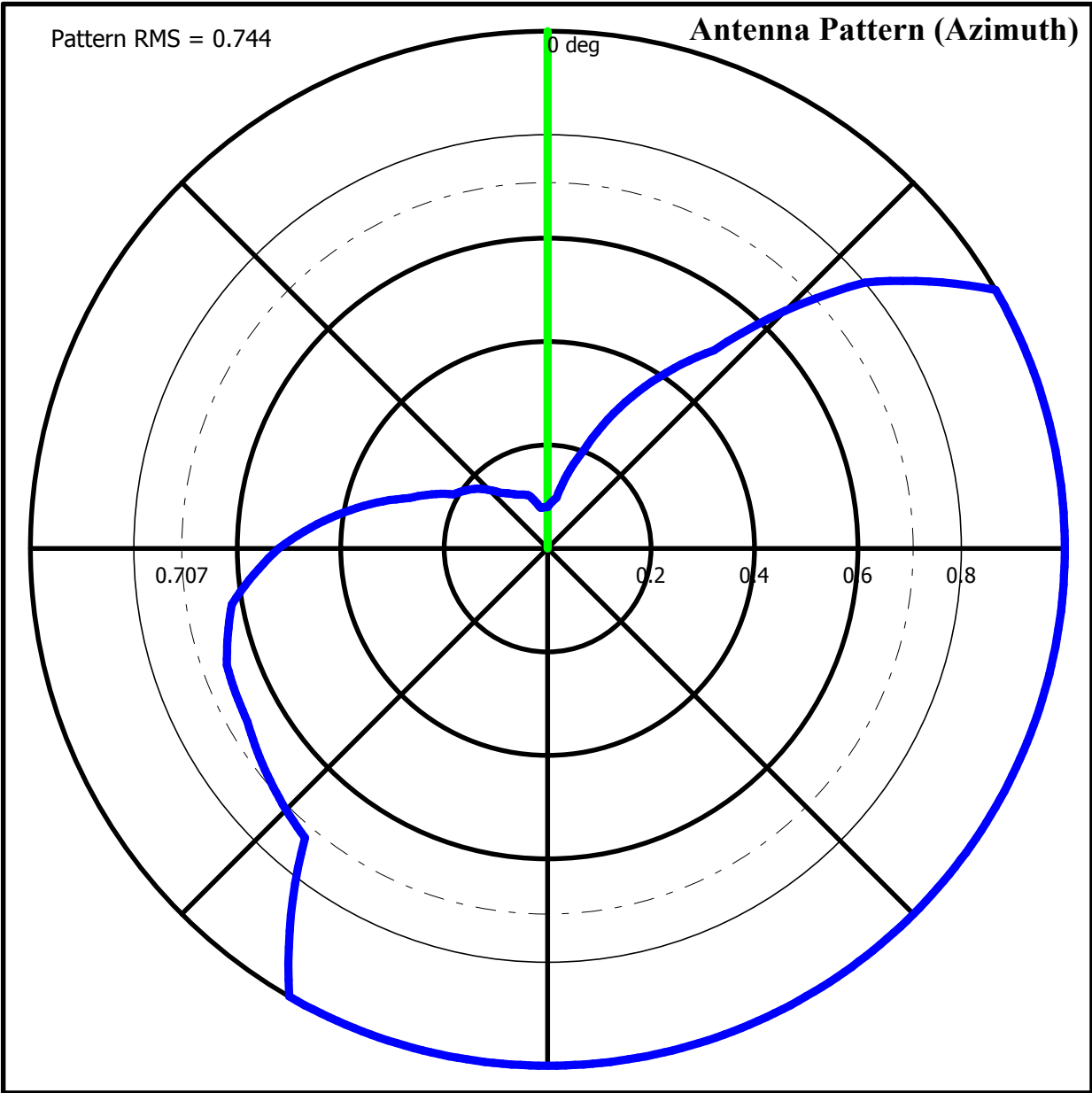


Figure 5 -- Proposed Directional Antenna Pattern Envelope



Degree	Field	Degree	Field	Degree	Field	Degree	Field	Degree	Field	Degree	Field
000	0.080	060	1.000	120	1.000	180	1.000	240	0.670	300	0.210
010	0.100	070	1.000	130	1.000	190	1.000	250	0.660	310	0.180
020	0.200	080	1.000	140	1.000	200	1.000	260	0.620	320	0.140
030	0.350	090	1.000	150	1.000	210	1.000	270	0.520	330	0.120
040	0.500	100	1.000	160	1.000	220	0.730	280	0.400	340	0.110
050	0.800	110	1.000	170	1.000	230	0.700	290	0.285	350	0.080

Figure 6 – Aerial Image of Proposed W252BT Site



The green circle represents a 26-meter radius around the WJIB(AM) tower, the proposed W252BT site. This worst-case scenario shows that any interference from W252BT's proposed operation to WBWL will not reach to the property boundary of the transmitter site, which is enclosed within a self-storage facility that is not inhabited.