

Exhibit 14 - Statement B  
**ALLOCATION CONSIDERATIONS**  
prepared for  
**The WBEZ Alliance, Inc.**  
WBEW(FM) Chesterton, Indiana  
Facility ID 3248  
Ch. 208B1 6.8 kW (MAX-DA) 151 m

*The WBEZ Alliance, Inc. (“Alliance”)* is the licensee of non-commercial educational FM radio station WBEW(FM) Ch.208B1, Chesterton, Indiana (BLED-19990813KA). *Alliance* also holds a Construction Permit (“CP”) to operate as a Class B station from the licensed site with 50 kW effective radiated power (“ERP”) utilizing a directional antenna at a height above average terrain (“HAAT”) of 74 meters (BPED-20040203AAA).

The instant application seeks to modify the CP facility to specify a new transmitter location (18.7 km distant) and specify Class B1 operation with 6.8 kW ERP at 151 meters HAAT, with a directional antenna pattern. A “Notice of Proposed Construction or Alteration” will be filed contemporaneously with the FAA for the new tower structure. Upon receipt of a “Determination of No Hazard” the structure will be registered with the FCC.

A directional antenna system is proposed. The attached **Exhibit 14 - Figure 1** supplies a plot of the proposed directional “envelope” pattern. Tabulated relative field data is supplied in the accompanying FCC Form 340 Section VII “Tech Box” item 11.

The principal community of Chesterton is encompassed by the proposed WBEW 70 dB $\mu$  coverage contour. The attached **Exhibit 14 - Figure 2** supplies a coverage contour map for the proposed WBEW facility. As demonstrated in **Exhibit 14 - Figure 3**, overlap exists between the 60 dB $\mu$  contour of the proposed and licensed facilities. As required of a minor modification involving the relocation of the transmitter, the proposed 1 mV/m contour overlaps some portion of the licensed 1 mV/m (60 dB $\mu$ ) contour per §73.3573(a)(1).

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A study of the minimum separation requirements for the proposed transmitter site shows that the following existing FM facilities require study in regard to prohibited overlap under §73.509 of the Commission's Rules:

Channel Status	Call Sign Service	City/State File Number	Fac. ID	Latitude Longitude	Power HAAT	Distance Bearing
207A LIC	WKKC FM	CHICAGO, IL BLED-19900521KB	6115	41 46 15 87 37 48	0.25 35	49.94 288.10
207A CP	WRXH FM	PLYMOUTH, IN BPED-19980414MB	90470	41 20 51 86 20 23	0.4 76	67.92 117.69
207B1 LIC	WNUR-FM FM	EVANSTON, IL BLED-1609	49779	42 03 12 87 40 33	7.2 30	69.32 312.65
208B CP	WWT5 FM	LOGANSPOBT, IN BPED-19981023MM	91950	40 40 08 86 41 44	24.0 122	111.33 164.04
208B1 LIC	WOFR FM	SCHOOLCRAFT, MI BLED-20021230AAW	91642	42 06 38 85 37 57	10.0 42	129.75 65.32
208B LIC	WNIJ FM	DEKALB, IL BLED-19891011KA	49550	42 00 55 89 00 07	50.0 128	166.92 285.43
209A LIC	WUBS FM	SOUTH BEND, IN BLED-19930128KA	28881	41 40 51 86 15 34	1.5 24	66.80 85.16
209A CP MOD	WUBS FM	SOUTH BEND, IN BMPED-20040213AAC	28881	41 40 36 86 15 08	1.3 89	67.37 85.59
209B LIC	WONU FM	KANKAKEE, IL BLED-19860908KA	50284	41 09 24 87 52 16	35.0 126	86.10 232.25
210B1 LIC	WHLF FM	HANNA, IN BLED-20010917AAC	91345	41 26 09 86 50 48	8.0 154	28.17 141.08

The attached **Exhibit 14 - Figures 4, 5, 5A, 5B, and 6** depict the pertinent protected and interfering contours of the stations listed and the proposed WBEW facility. The contours were plotted using the actual ERP and height above terrain along each radial for each facility, as specified in §73.509(c). For the facilities under study, the antenna elevation above mean sea level, geographic coordinates, and ERP (including directional antenna relative field values, where appropriate) were retrieved from the FCC's engineering database. The requisite contours were determined using U.S.G.S. 3-second digitized terrain data along each radial of interest from each transmitter site and an implementation of the Commission's TVFMFS computer program which simulates the FM

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propagation curves. The F(50,10) distances are used to calculate distance to interfering contours, however if the distance is less than 16 km the F(50,50) curves are used, as specified by §73.509(c)(2).

**Exhibit 14 - Figure 4** illustrates that there is no prohibited overlap between the proposed WBEW facility and pertinent co-channel facilities. **Exhibit 14 - Figure 5** depicts the allocation situation with pertinent first adjacent facilities. Detail views to demonstrate the lack of prohibited contour overlap to WKKC, WONU and WUBS are provided in **Exhibit 14 - Figures 5A and 5B**, respectively. **Exhibit 14 - Figure 6** supplies an allocation map for any pertinent second and third adjacent stations. WHLP is the only second adjacent facility near enough for consideration. There are no third adjacent facilities close enough to warrant study.

As shown on **Exhibit 14 - Figure 4**, contour overlap does occur with respect to WNUR-FM (Ch. 207B1, Evanston, IL). However, the overlap with WNUR-FM occurs entirely over water, which is permitted under §73.509(e). In each other case, prohibited contour overlap does not occur. Thus, **Exhibit 14 - Figures 4, 5, 5A, 5B, and 6** show that the proposed WBEW facility fully complies with the prohibited overlap criteria of §73.509(a).

A spacing study was performed as required by §73.507(c) (regarding facilities differing in frequency by 10.6 or 10.8 MHz from the proposal). The proposed facility meets the minimum distance separation requirements of §73.207 in all such instances. The nearest stations on the pertinent channels are summarized below.

Channel Status	Call Sign Service	City/State File Number	Fac. ID	Latitude Longitude	Power HAAT	Distance Bearing	Required Clear
261A LIC	WFRI FM	WINAMAC, IN BLH-19980928KC	53645	41 02 21 86 30 55	6.0 100	80.13 145.32	15.00 65.13
262B LIC	WILV FM	CHICAGO, IL BLH-20030702AAW	10059	41 53 56 87 37 23	5.7 425	55.43 302.47	20.00 35.43

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**TV Channel 6 Considerations**

Under §73.525(a)(1), an affected TV Channel 6 station must be considered with a proposed non-commercial educational facility on Channel 208 if the distance between the respective transmitter sites is 196 km or less. Within a 196 km radius of the proposed WBEW facility, the only TV Channel 6 facility is that of WITI(TV), Milwaukee, Wisconsin (BLCT-19990129KT), at a distance of 176 km.

Accordingly, **Exhibit 14 - Figure 7** depicts the WITI Grade B (47 dB $\mu$ ) contour, along with the interfering 67.3 dB $\mu$  F(50,10) from the proposed WBEW facility.<sup>1</sup> As shown on **Exhibit 14 - Figure 7**, there is no overlap between these contours. Accordingly, the instant proposal complies with the television Channel 6 protection criteria of §73.525.

**International Coordination**

The proposed WBEW site is located 326.4 km from the U.S. - Canadian border which is beyond the coordination distance specified in §73.207(b)(2) of the Commission's Rules regarding international coordination. Any necessary coordination with Canada is requested.

**Determination of Height Above Average Terrain**

Terrain data for the eight "cardinal" radials for the proposed WBEW were obtained from U.S.G.S. 3 arc-second digitized terrain data. The determination of HAAT excluded the consideration of a portion of the 0° True radial per §73.313(d)(2). The 3.5 to 16 km section of this radial extends entirely over Lake Michigan, and the 34 dB $\mu$  (50  $\mu$ V/m) coverage contour does not encompass United States land area beyond the 16 km portion of this radial. Accordingly, the determination of HAAT was based on the average antenna elevation of the land portion of the 0°

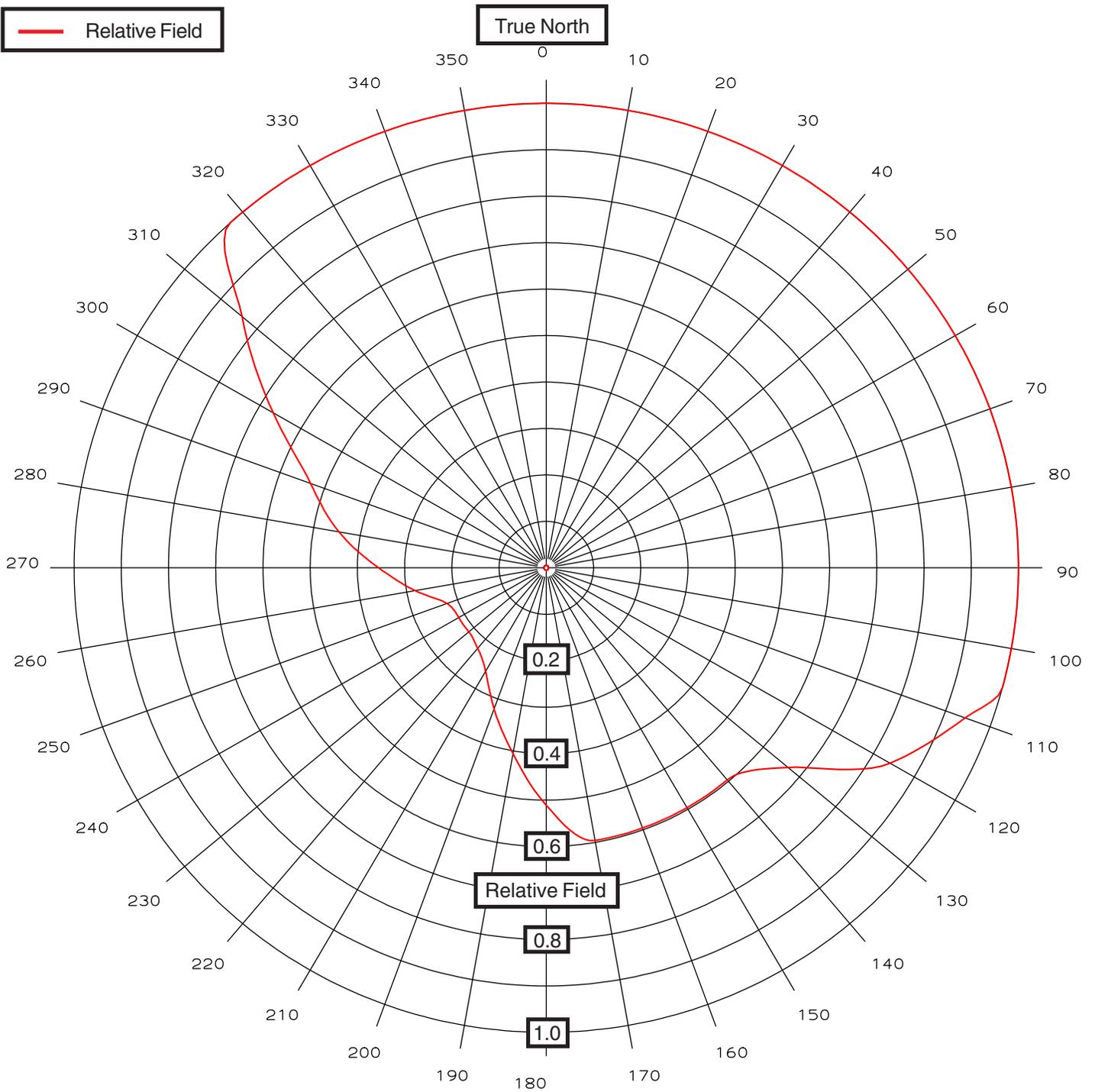
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<sup>1</sup>The interfering contour level is determined in accordance with §73.525(e)(1)(ii), and does not consider the additional 6 dB receiving antenna directivity as permitted by §73.525(e)(1)(iii).

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radial and the remaining seven radials. Averaging these radials, the proposed antenna's resulting height above average terrain is 152.5 meters.

It is thus believed that the facility proposed herein will satisfy all of the pertinent Commission Rules and Policies now in effect regarding allocation matters.



**EXHIBIT 14 - FIGURE 1**  
**ANTENNA HORIZONTAL PLANE RADIATION PATTERN**

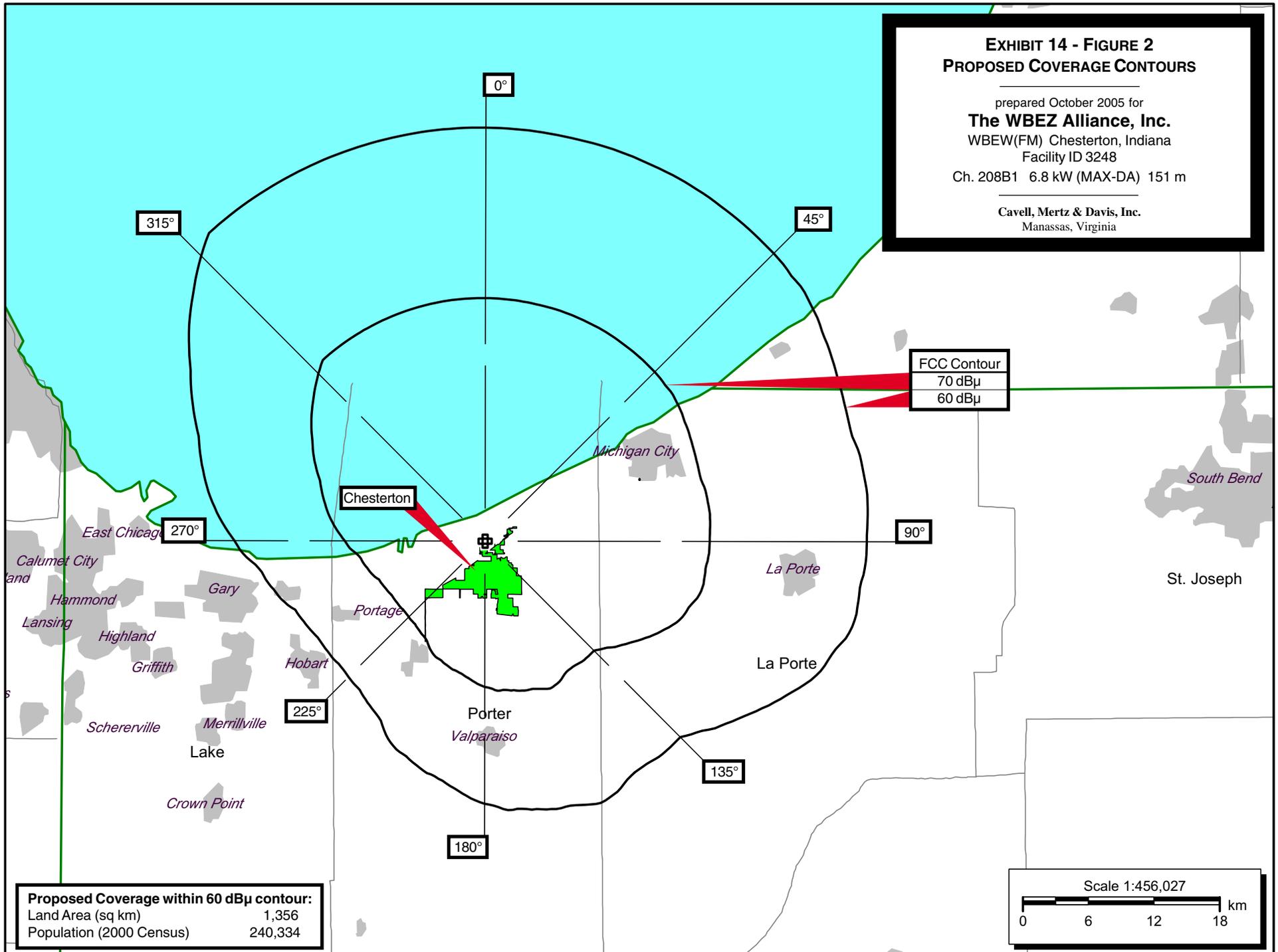
prepared October 2005 for  
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 Facility ID 3248  
 Ch. 208B1 6.8 kW (MAX-DA) 151 m

**Cavell, Mertz & Davis, Inc.**  
 Manassas, Virginia

**EXHIBIT 14 - FIGURE 2  
PROPOSED COVERAGE CONTOURS**

prepared October 2005 for  
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 Manassas, Virginia



**EXHIBIT 14 - FIGURE 3  
COVERAGE CONTOUR COMPARISON**

prepared October 2005 for

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WBEW(FM) Chesterton, Indiana

Facility ID 3248

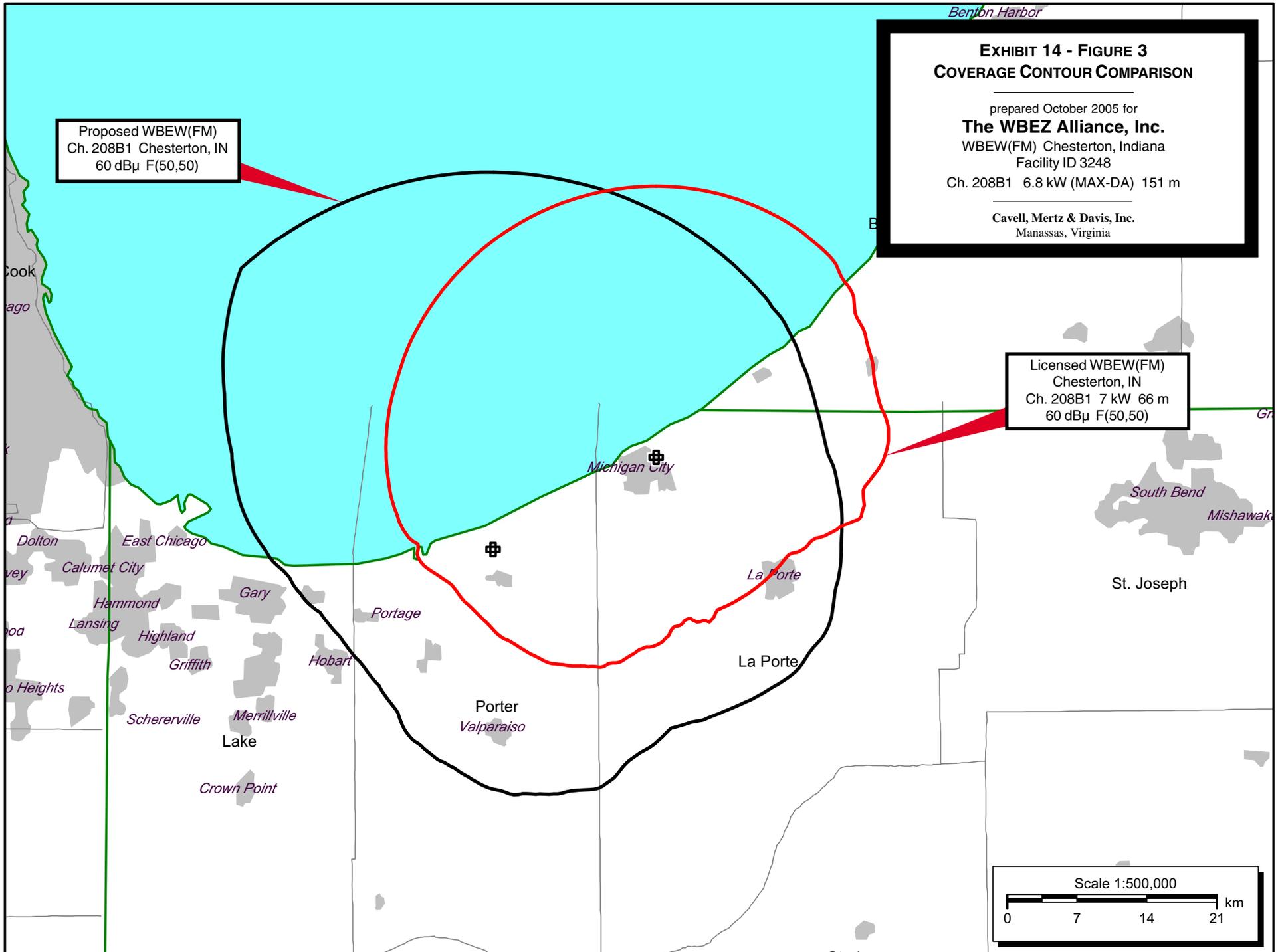
Ch. 208B1 6.8 kW (MAX-DA) 151 m

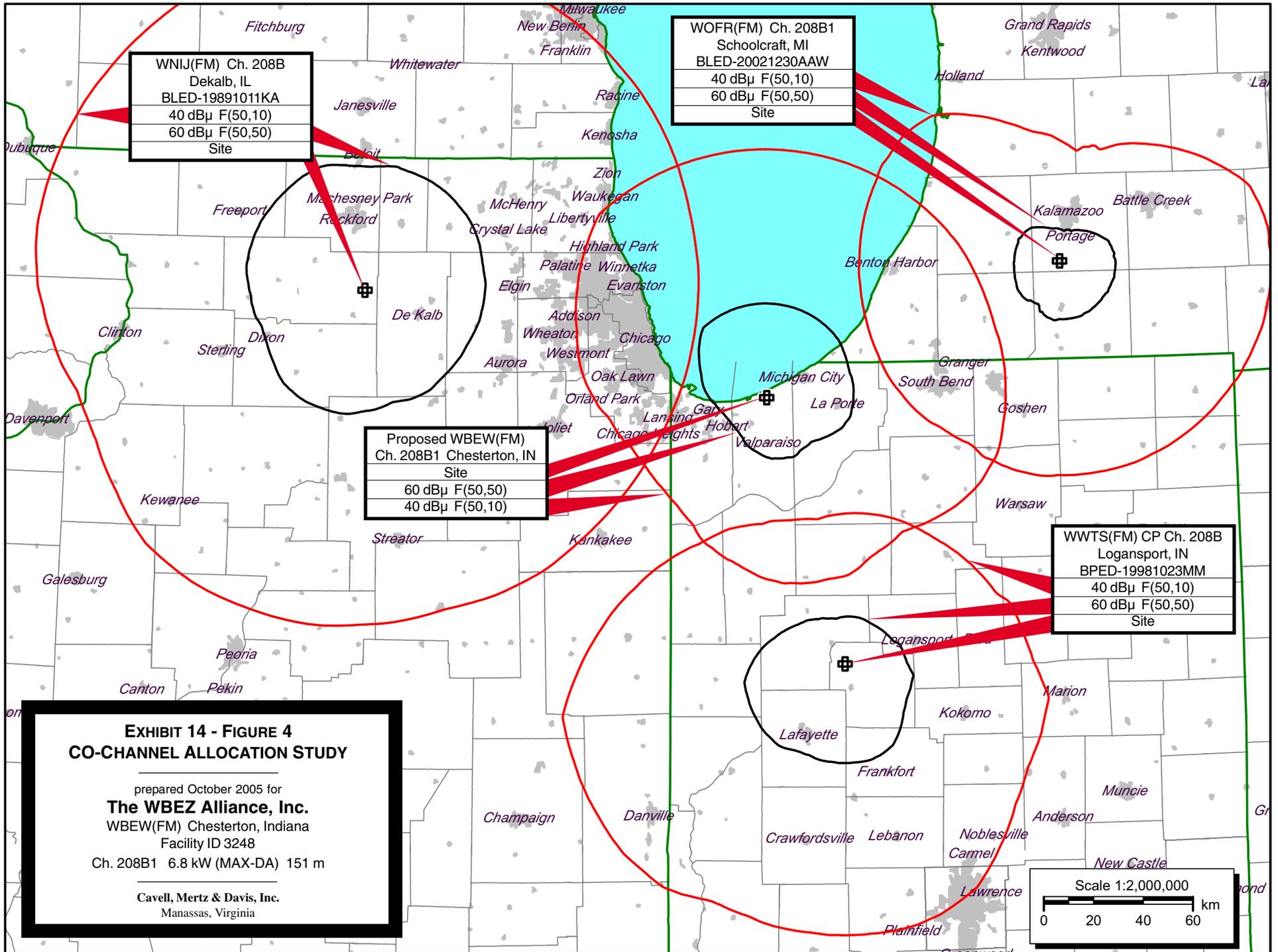
**Cavell, Mertz & Davis, Inc.**

Manassas, Virginia

Proposed WBEW(FM)  
Ch. 208B1 Chesterton, IN  
60 dB $\mu$  F(50,50)

Licensed WBEW(FM)  
Chesterton, IN  
Ch. 208B1 7 kW 66 m  
60 dB $\mu$  F(50,50)





**EXHIBIT 14 - FIGURE 5**  
**FIRST-ADJACENT ALLOCATION STUDY**

prepared October 2005 for  
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Cavell, Mertz & Davis, Inc.  
 Manassas, Virginia

WNUR-FM Ch. 207B1
Evanston, IL
BLED-1609
54 dBμ F(50,10)
60 dBμ F(50,50)
Site

Proposed WBEW(FM)
Ch. 208B1 Chesterton, IN
54 dBμ F(50,10)
60 dBμ F(50,50)
Site

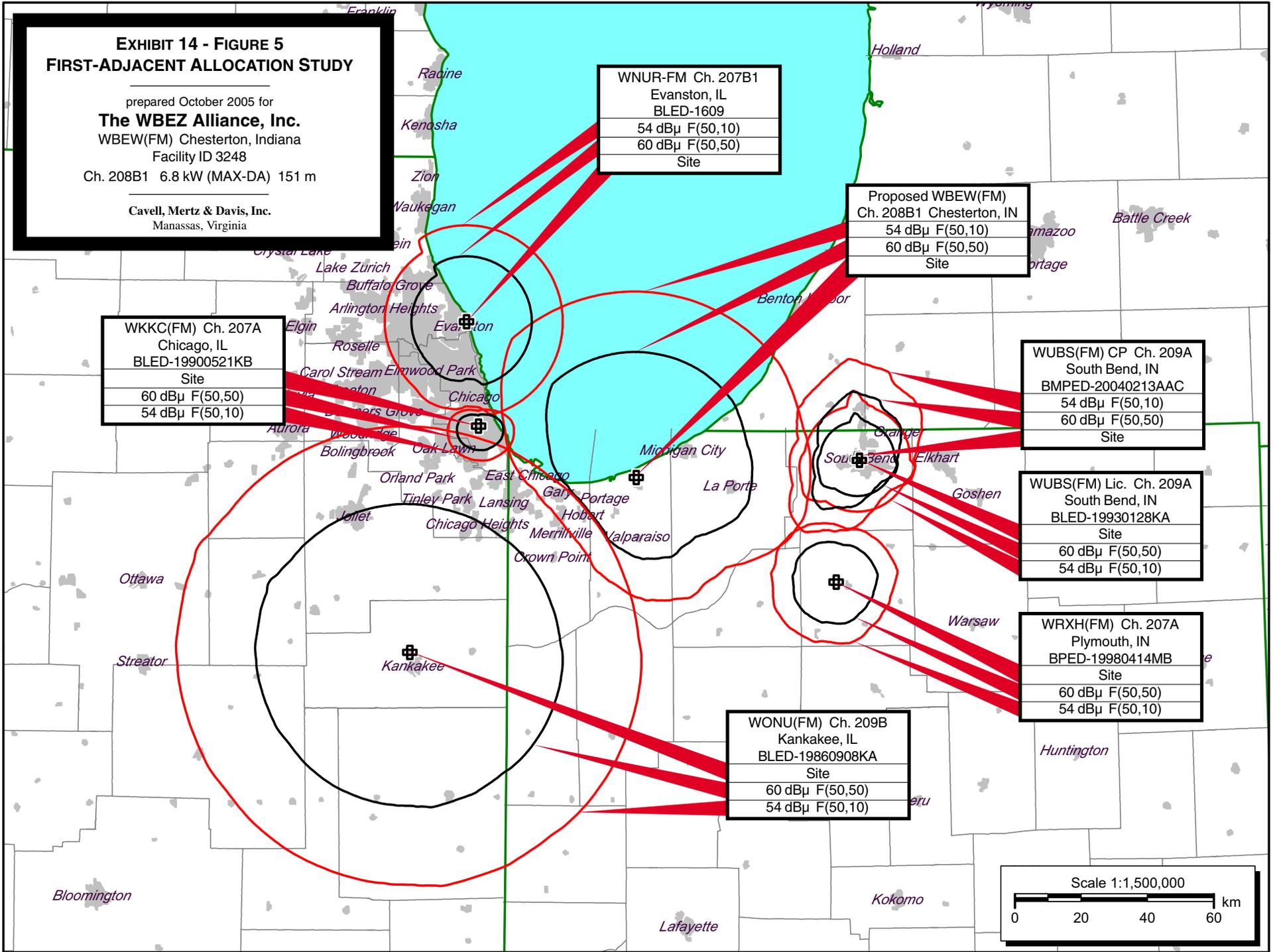
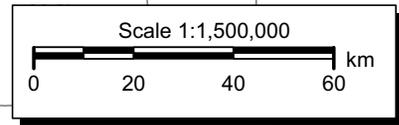
WKKC(FM) Ch. 207A
Chicago, IL
BLED-19900521KB
Site
60 dBμ F(50,50)
54 dBμ F(50,10)

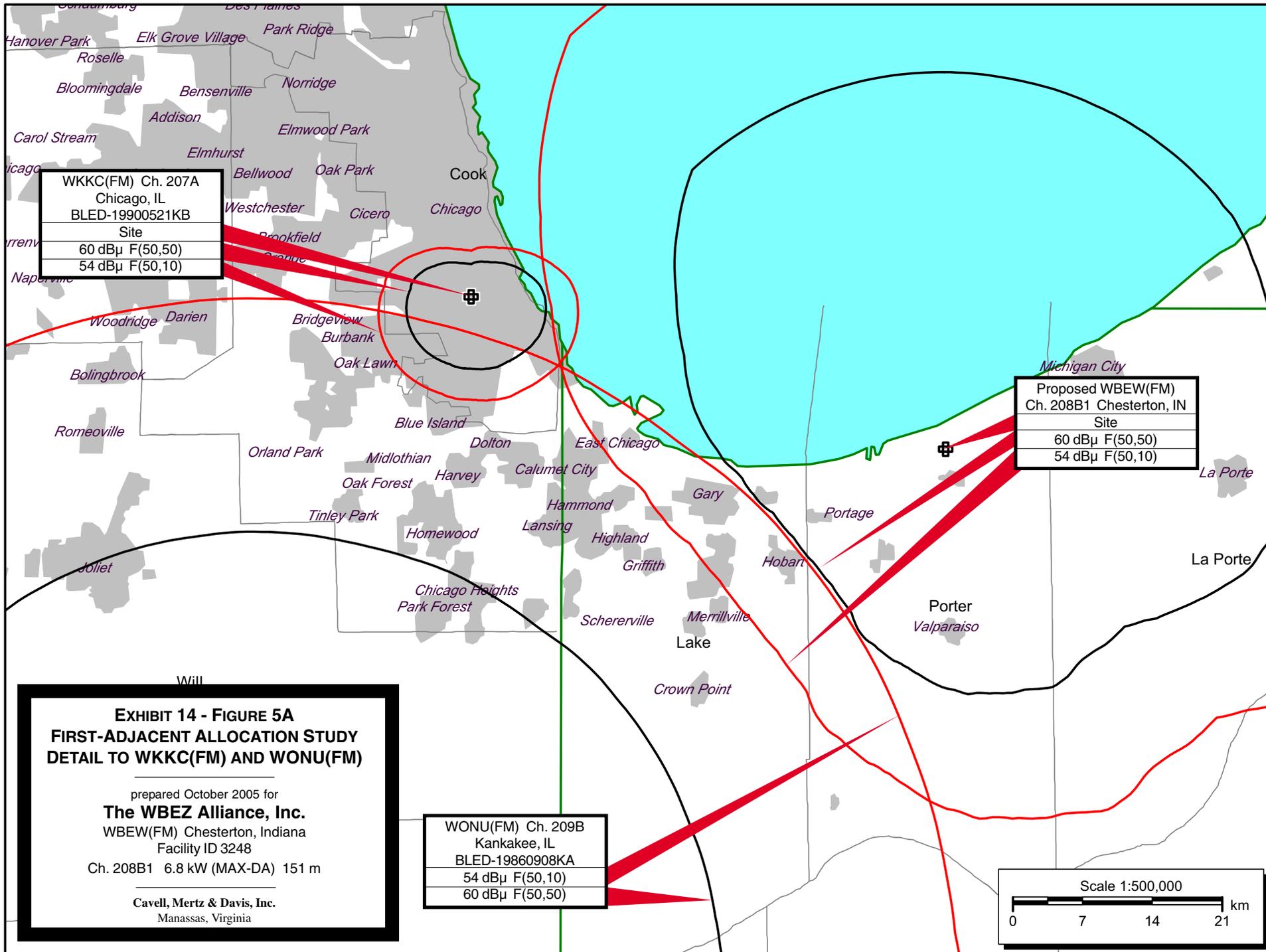
WUBS(FM) CP Ch. 209A
South Bend, IN
BMPED-20040213AAC
54 dBμ F(50,10)
60 dBμ F(50,50)
Site

WUBS(FM) Lic. Ch. 209A
South Bend, IN
BLED-19930128KA
Site
60 dBμ F(50,50)
54 dBμ F(50,10)

WRXH(FM) Ch. 207A
Plymouth, IN
BPED-19980414MB
Site
60 dBμ F(50,50)
54 dBμ F(50,10)

WONU(FM) Ch. 209B
Kankakee, IL
BLED-19860908KA
Site
60 dBμ F(50,50)
54 dBμ F(50,10)





WKKC(FM) Ch. 207A Chicago, IL BLED-19900521KB
Site
60 dBμ F(50,50)
54 dBμ F(50,10)

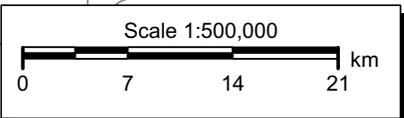
Proposed WBEW(FM) Ch. 208B1 Chesterton, IN Site
60 dBμ F(50,50)
54 dBμ F(50,10)

WONU(FM) Ch. 209B Kankakee, IL BLED-19860908KA
54 dBμ F(50,10)
60 dBμ F(50,50)

**EXHIBIT 14 - FIGURE 5A**  
**FIRST-ADJACENT ALLOCATION STUDY**  
**DETAIL TO WKKC(FM) AND WONU(FM)**

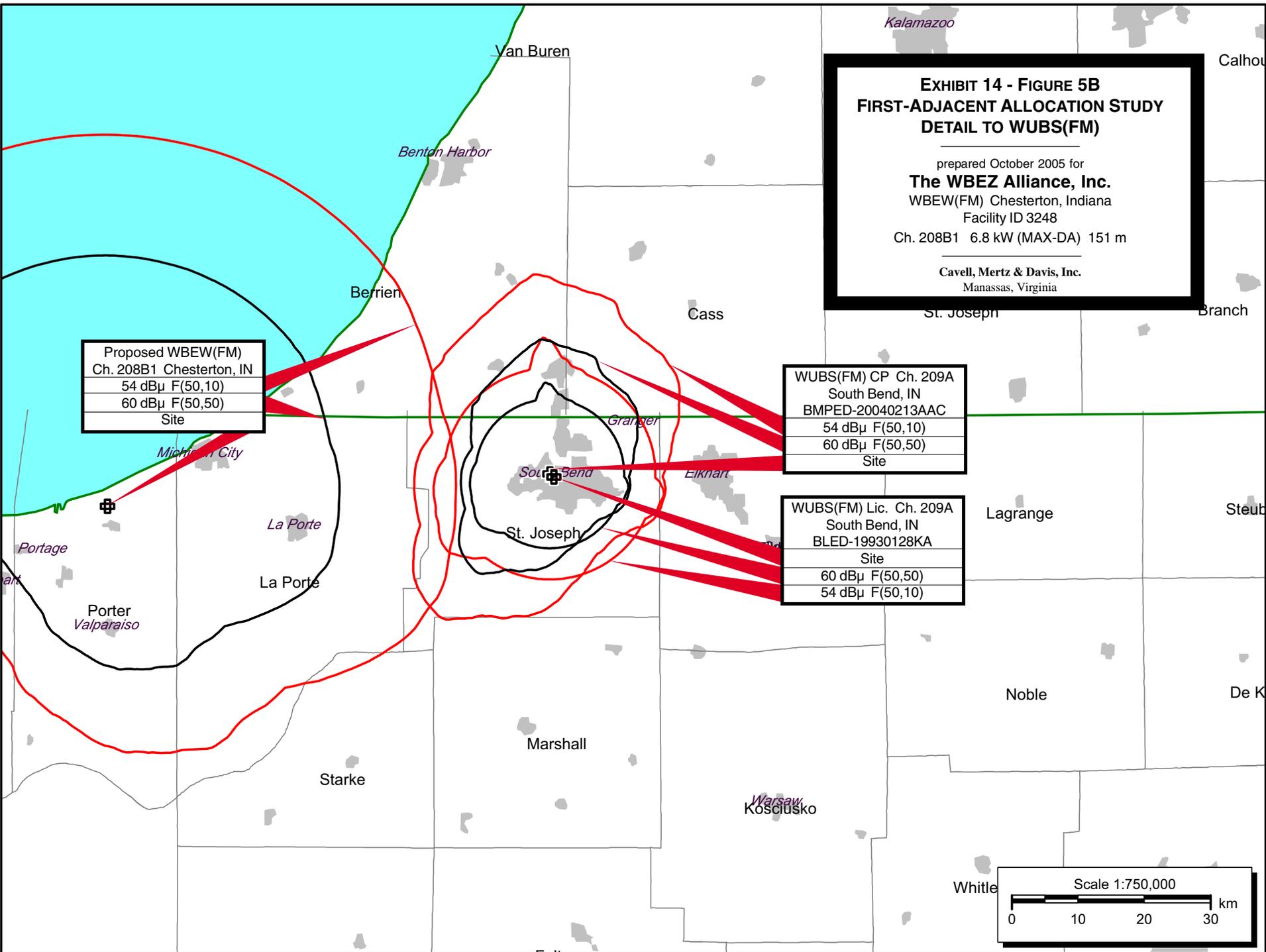
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 Manassas, Virginia



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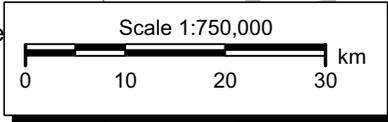
**EXHIBIT 14 - FIGURE 5B**  
**FIRST-ADJACENT ALLOCATION STUDY**  
**DETAIL TO WUBS(FM)**  
prepared October 2005 for  
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Manassas, Virginia



Proposed WBEW(FM)  
Ch. 208B1 Chesterton, IN  
54 dBµ F(50,10)  
60 dBµ F(50,50)  
Site

WUBS(FM) CP Ch. 209A  
South Bend, IN  
BMPED-20040213AAC  
54 dBµ F(50,10)  
60 dBµ F(50,50)  
Site

WUBS(FM) Lic. Ch. 209A  
South Bend, IN  
BLED-19930128KA  
Site  
60 dBµ F(50,50)  
54 dBµ F(50,10)



**EXHIBIT 14 - FIGURE 6  
SECOND AND THIRD ADJACENT  
ALLOCATION STUDY**

prepared October 2005 for  
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**Cavell, Mertz & Davis, Inc.**  
Manassas, Virginia

Proposed WBEW(FM) Ch. 208B1 Chesterton, IN Site
100 dB $\mu$ F(50,10)
60 dB $\mu$ F(50,50)

WHLP(FM) Ch. 210B1 Hanna, IN BLED-20010917AAC Site
60 dB $\mu$ F(50,50)
100 dB $\mu$ F(50,10)

