

Exhibit 14 - Statement B  
**ALLOCATION CONSIDERATIONS**  
prepared for  
**The WBEZ Alliance, Inc.**  
WBEW(FM) Chesterton, Indiana  
Facility ID 3248  
Ch. 208B 50 kW (MAX-DA) 74 m

Non-commercial educational FM radio station WBEW(FM) (Ch.208B1, Chesterton, IN) is presently licensed (BLED-19990813KA) to operate with 7 kW effective radiated power (“ERP”) with a non-directional antenna at a height above average terrain (“HAAT”) of 66 meters.

The antenna for station WEFM(FM) (Ch. 240A, Michigan City, IN) is presently co-located on the same antenna structure as WBEW, and is situated above the present WBEW facility. Representatives from WEFM have advised that WEFM will be relocating its facility to a separate tower structure, and the space presently occupied by WEFM’s antenna will become available. Accordingly, the instant proposal seeks to employ a higher position on the existing tower structure, as well as an increase in ERP.

Specifically, the instant application seeks to modify the WBEW facility to permit an increase in ERP and HAAT to 50 kW at 74 meters, respectively, with a directional antenna pattern. No change in transmitter site or overall antenna structure height is requested. The existing tower structure’s Antenna Structure Registration number is 1027621.

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.

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:

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Channel	Call		City	State	Lat	Distance
Applicant/Licensee					Long	Bearing
=====						
207B1	WNUR-FM	LIC	EVANSTON	, IL	42- 3-12	77.16
	NORTHWESTERN UNIVERSITY			7.20 kW	30M	87-40-33 299.40
207A	WRXH	CP	PLYMOUTH	, IN	41-20-51	59.86
	AMERICAN FAMILY ASSOCIATION			0.40 kW	76M	86-20-23 133.08
207A	WKKC	LIC	CHICAGO	, IL	41-46-15	64.09
	BOARD OF TRUSTEES COMM COL DIST 508			0.25 kW	35M	87-37-48 275.72
208B	WWTS	CP	LOGANSPOUR	, IN	40-40- 8	117.15
	CSN INTERNATIONAL			24.00 kW	122M	86-41-44 173.08
208B1	WOFR	LIC	SCHOOLCRAFT	, MI	42- 6-38	111.10
	FAMILY STATIONS, INC			10.00 kW	42M	85-37-57 66.29
208A	WBKE-FM	LIC	NORTH MANCHESTER	, IN	41- 0-40	120.87
	MANCHESTER COLLEGE			3.00 kW	28M	85-45-45 130.12
209A	WUBS	LIC	SOUTH BEND	, IN	41-40-51	50.40
	INTERFAITH CHRISTIAN UNION, INC.			1.50 kW	24M	86-15-34 94.27
209A	WUBS	CP	SOUTH BEND	, IN	41-40-51	50.40
	INTERFAITH CHRISTIAN UNION, INC.			2.20 kW	68M	86-15-34 94.27
209B	WONU	LIC	KANKAKEE	, IL	41- 9-24	104.69
	OLIVET NAZARENE UNIVERSITY			35.00 kW	126M	87-52-16 233.82
210B1	WHLP	LIC	HANNA	, IN	41-26- 9	31.16
	CSN INTERNATIONAL			8.00 kW	154M	86-50-48 177.49

The attached **Exhibit 14 - Figures 2, 3, 3A, 3B, and 4** 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 propagation curves. The F(50,10) distances are used to calculate distance to interfering contours,

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however if the distance is less than 16 km the F(50,50) curves are used, as specified by §73.509(c)(1).

**Exhibit 14 - Figure 2** illustrates that there is no prohibited overlap between the proposed WBEW facility and pertinent co-channel facilities. **Exhibit 14 - Figure 3** depicts the allocation situation with pertinent first adjacent facilities. Detail views to demonstrate the lack of prohibited contour overlap to WONU and WUBS are provided in **Exhibit 14 - Figures 3A** and **3B**, respectively. **Exhibit 14 - Figure 4** 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 3**, 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 2, 3, 3A, 3B, and 4** 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 station on the pertinent channels is summarized below.

Channel	Call		City	State	Lat	Distance	Reqr'd
Applicant/Licensee					Long	Bearing	Clear
=====							
261A	WFRI	LIC	WINAMAC	, IN	41- 2-21	80.61	15.00
PROGRESSIVE BROADCASTING SYSTEM, INC				6.00 kW 100M	86-30-55	158.73	65.61
262B	WNND	LIC	CHICAGO	, IL	41-53-56	66.34	20.00
BONNEVILLE HOLDING COMPANY				8.30 kW 358M	87-37-23	288.14	46.34
262B	WNND	CP	CHICAGO	, IL	41-53-56	66.34	20.00
BONNEVILLE HOLDING COMPANY				5.70 kW 425M	87-37-23	288.14	46.34

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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 174.8 km.

Accordingly, **Exhibit 14 - Figure 5** 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 5**, 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 WBEW site is located 309 km from the U.S. - Canadian Border. WBEW is presently considered a Class B1 facility for international coordination purposes. Under the instant proposal, WBEW will become a Class B facility. As a Class B facility, the WBEW site meets all minimum distance separation requirements listed under §73.207(b)(2) of the Commission's Rules with respect to known Canadian assignments and allotments (based on data extracted from the Commission's engineering database). 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 the 0° True radial per §73.313(d)(2). The 3 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

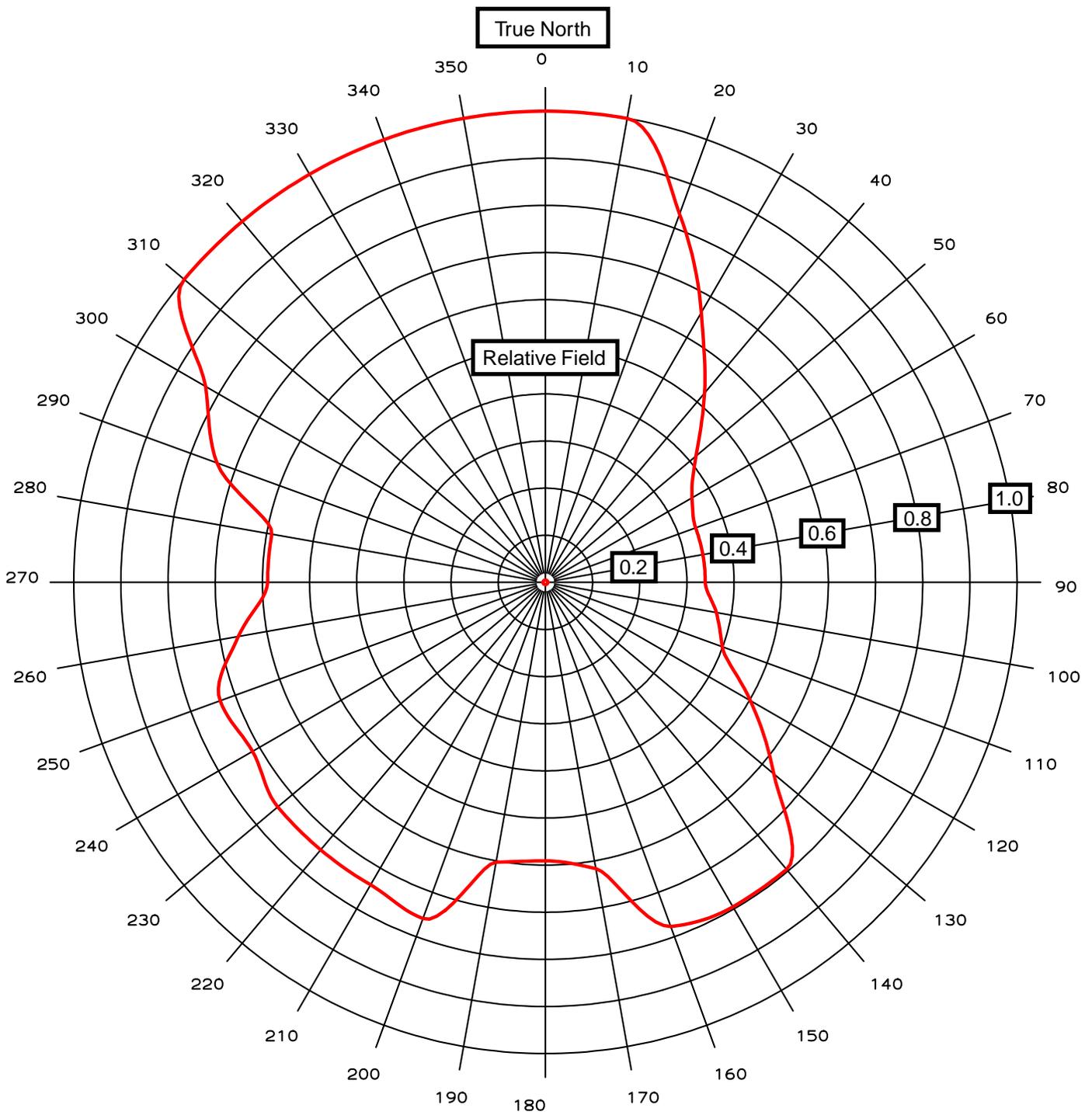
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<sup>1</sup>The interfering contour level is determined in accordance with §73.525(e)(1)(ii), and does not consider the additional 6 dB receiving antenna directivity as permitted by §73.525(e)(1)(iii).

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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 remaining seven radials. Averaging these seven radials, the proposed antenna's resulting height above average terrain is 73.7 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 ENVELOPE PATTERN**

prepared November 2003 for  
**The WBEZ Alliance, Inc.**  
 WBEW(FM) Chesterton, Indiana  
 Facility ID 3248  
 Ch. 208B 50 kW (MAX-DA) 74 m

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

**EXHIBIT 14 - FIGURE 2  
CO-CHANNEL ALLOCATION STUDY**

prepared November 2003 for  
**The WBEZ Alliance, Inc.**  
 WBEW(FM) Chesterton, Indiana  
 Facility ID 3248  
 Ch. 208B 50 kW (MAX-DA) 74 m

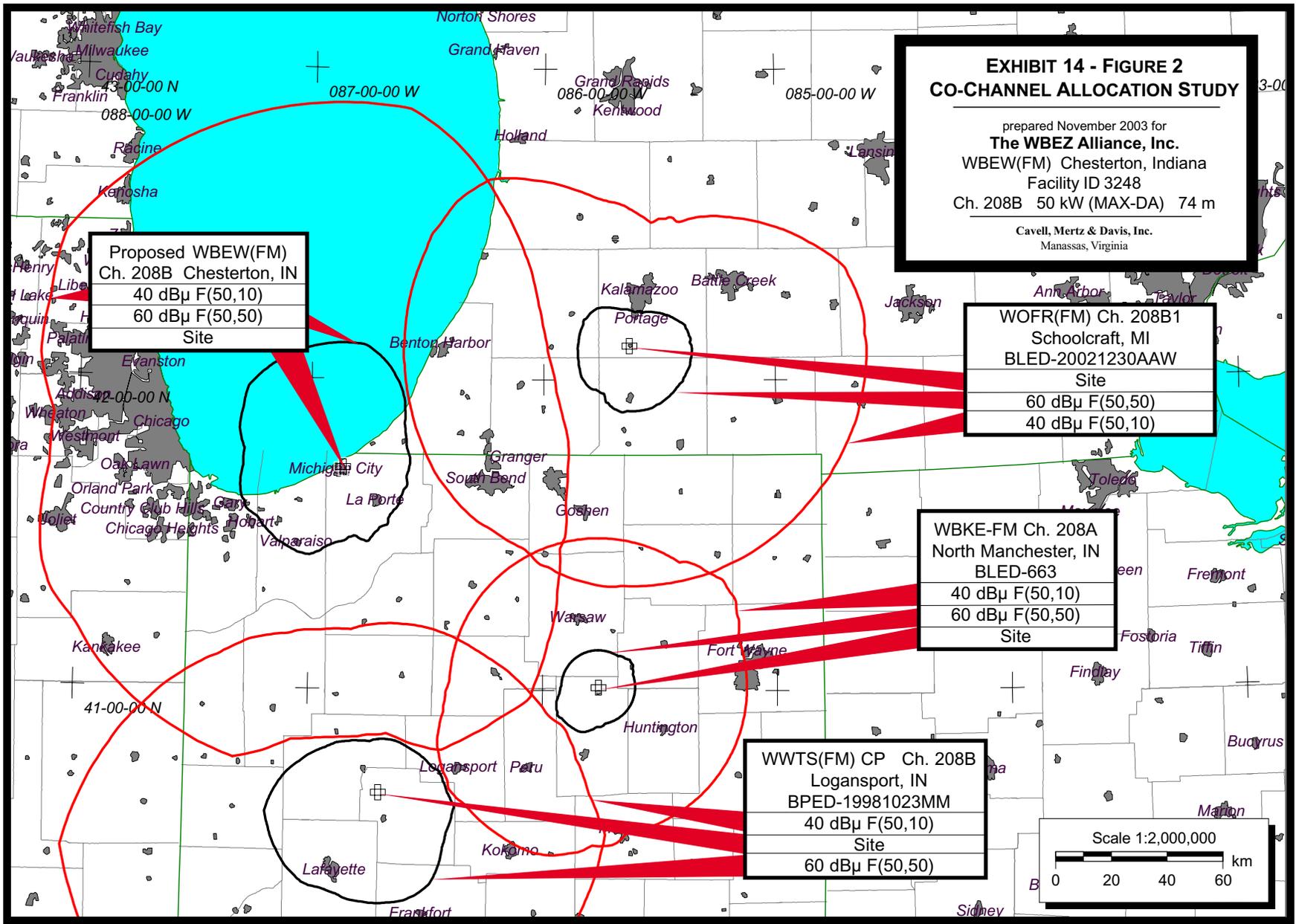
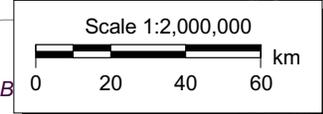
Cavell, Mertz & Davis, Inc.  
 Manassas, Virginia

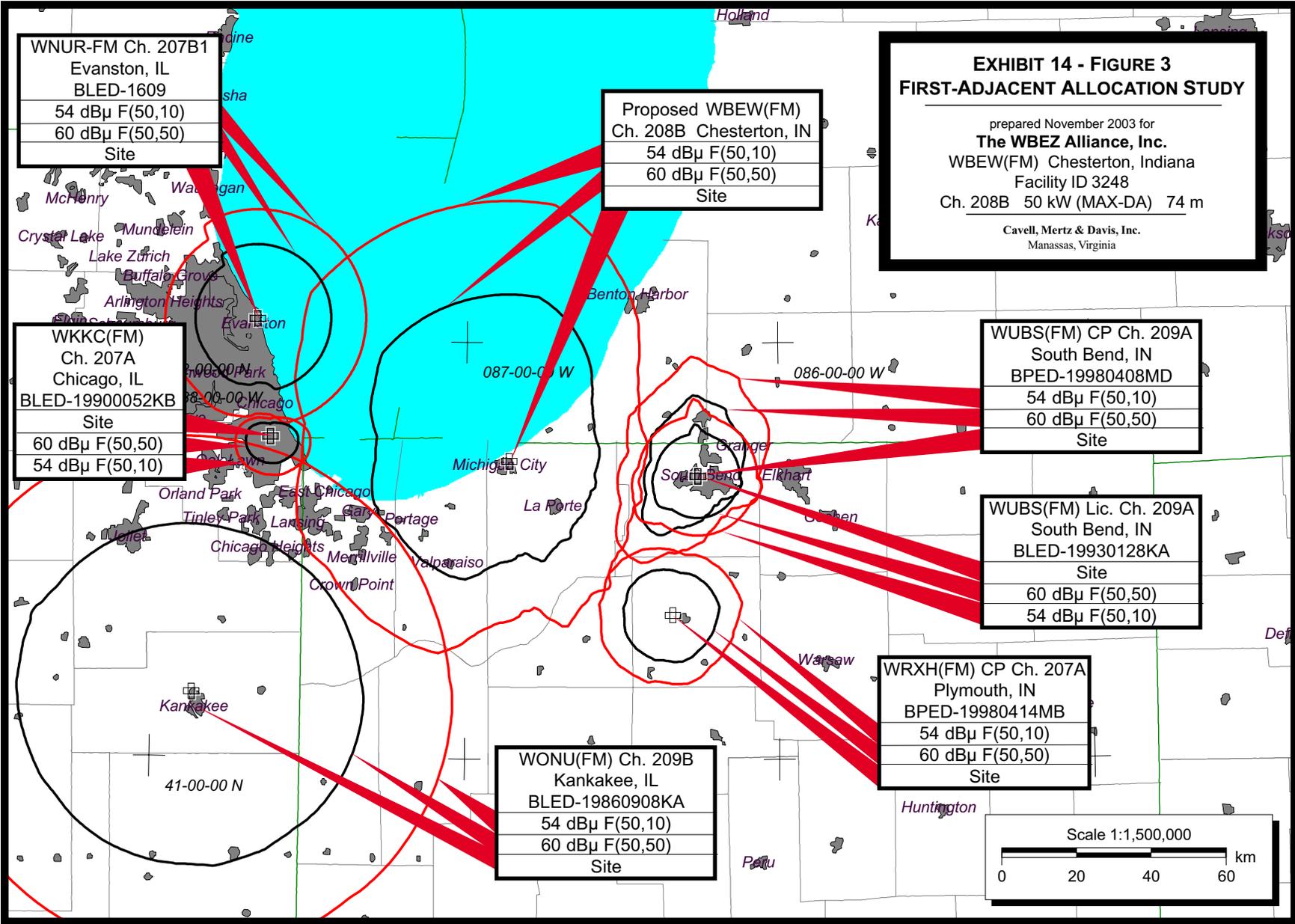
Proposed WBEW(FM)  
 Ch. 208B Chesterton, IN  
 40 dB $\mu$  F(50,10)  
 60 dB $\mu$  F(50,50)  
 Site

WOFR(FM) Ch. 208B1  
 Schoolcraft, MI  
 BLED-20021230AAW  
 Site  
 60 dB $\mu$  F(50,50)  
 40 dB $\mu$  F(50,10)

WBKE-FM Ch. 208A  
 North Manchester, IN  
 BLED-663  
 40 dB $\mu$  F(50,10)  
 60 dB $\mu$  F(50,50)  
 Site

WWTS(FM) CP Ch. 208B  
 Logansport, IN  
 BPED-19981023MM  
 40 dB $\mu$  F(50,10)  
 Site  
 60 dB $\mu$  F(50,50)





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

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

**EXHIBIT 14 - FIGURE 3**  
**FIRST-ADJACENT ALLOCATION STUDY**  
 prepared November 2003 for  
**The WBEZ Alliance, Inc.**  
 WBEW(FM) Chesterton, Indiana  
 Facility ID 3248  
 Ch. 208B 50 kW (MAX-DA) 74 m  
 Cavell, Mertz & Davis, Inc.  
 Manassas, Virginia

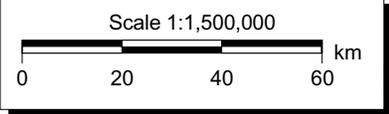
WKKC(FM)  
 Ch. 207A  
 Chicago, IL  
 BLED-19900052KB  
 Site  
 60 dBµ F(50,50)  
 54 dBµ F(50,10)

WUBS(FM) CP Ch. 209A  
 South Bend, IN  
 BPED-19980408MD  
 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)

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

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



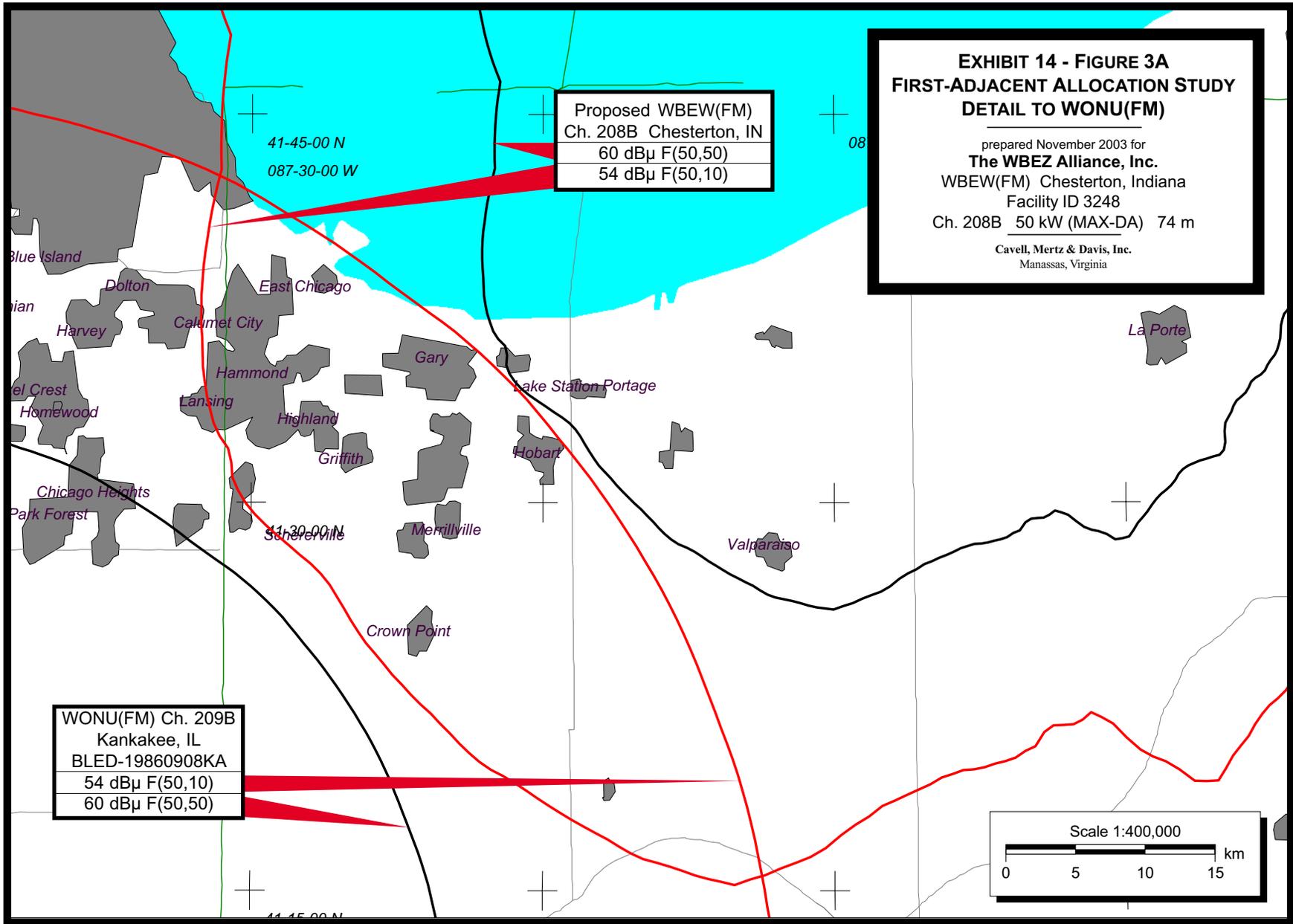
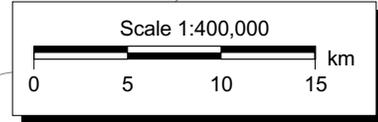
**EXHIBIT 14 - FIGURE 3A  
FIRST-ADJACENT ALLOCATION STUDY  
DETAIL TO WONU(FM)**

prepared November 2003 for  
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 WBEW(FM) Chesterton, Indiana  
 Facility ID 3248  
 Ch. 208B 50 kW (MAX-DA) 74 m

Cavell, Mertz & Davis, Inc.  
 Manassas, Virginia

Proposed WBEW(FM) Ch. 208B Chesterton, IN
60 dB $\mu$ F(50,50)
54 dB $\mu$ F(50,10)

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



Proposed WBEW(FM) Ch. 208B Chesterton, IN 54 dB $\mu$ F(50,10) 60 dB $\mu$ F(50,50)
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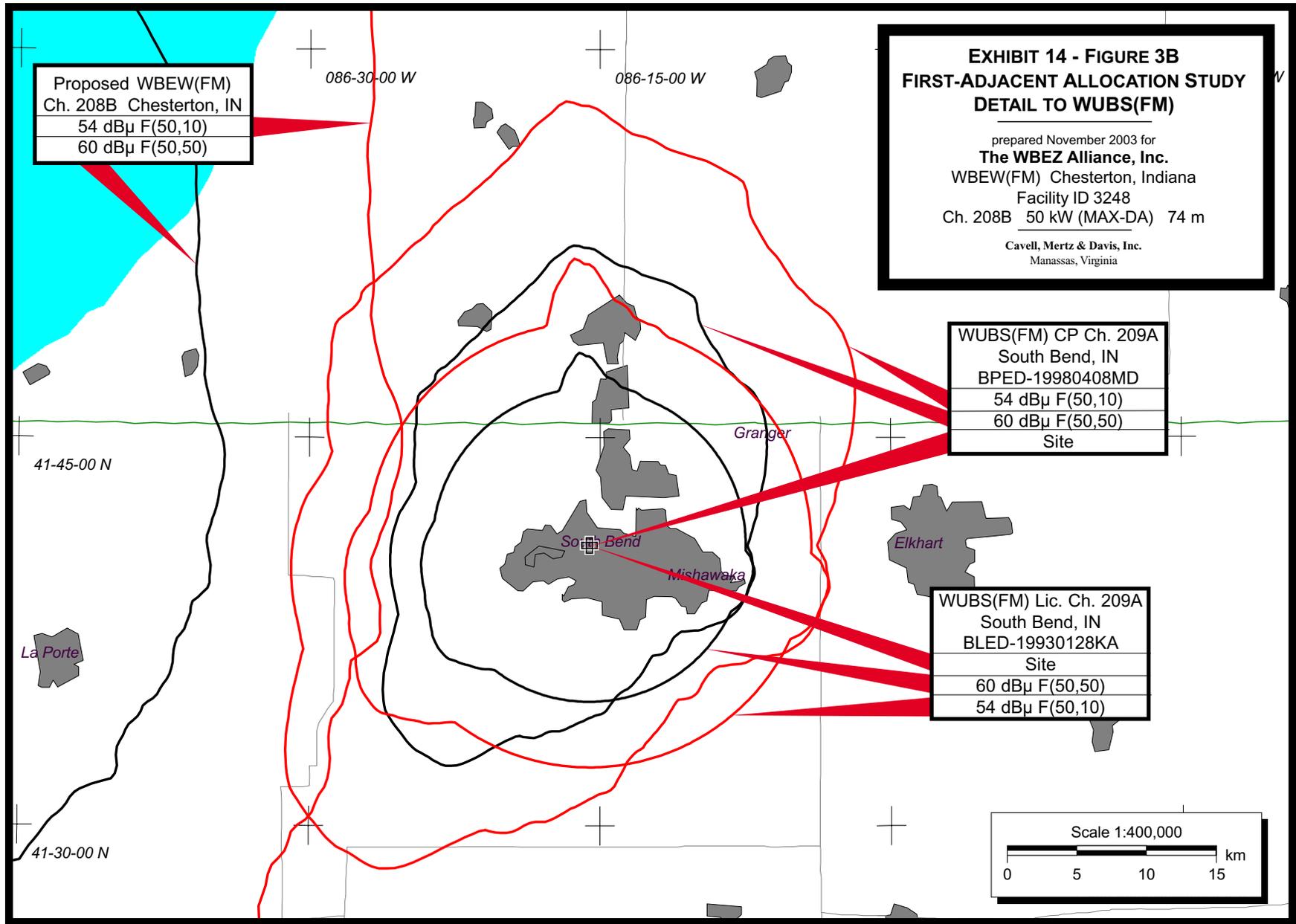
**EXHIBIT 14 - FIGURE 3B**  
**FIRST-ADJACENT ALLOCATION STUDY**  
**DETAIL TO WUBS(FM)**

prepared November 2003 for  
**The WBEZ Alliance, Inc.**  
 WBEW(FM) Chesterton, Indiana  
 Facility ID 3248  
 Ch. 208B 50 kW (MAX-DA) 74 m

Cavell, Mertz & Davis, Inc.  
 Manassas, Virginia

WUBS(FM) CP Ch. 209A South Bend, IN BPED-19980408MD 54 dB $\mu$ F(50,10) 60 dB $\mu$ F(50,50) Site
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WUBS(FM) Lic. Ch. 209A South Bend, IN BLED-19930128KA Site 60 dB $\mu$ F(50,50) 54 dB $\mu$ F(50,10)
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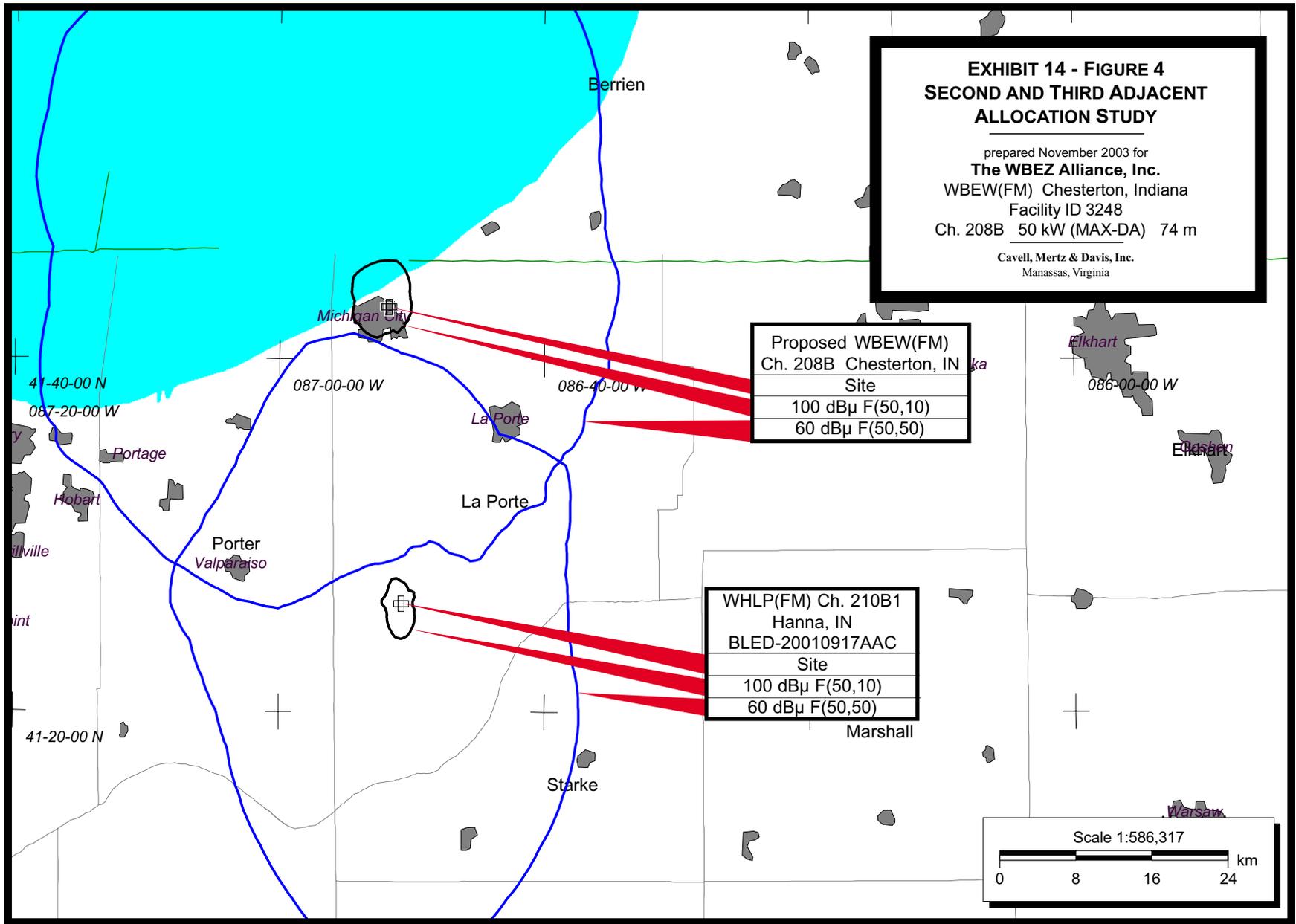
**EXHIBIT 14 - FIGURE 4  
SECOND AND THIRD ADJACENT  
ALLOCATION STUDY**

prepared November 2003 for  
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Cavell, Mertz & Davis, Inc.  
 Manassas, Virginia

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

WHLF(FM) Ch. 210B1  
 Hanna, IN  
 BLED-20010917AAC  
 Site  
 100 dBμ F(50,10)  
 60 dBμ F(50,50)



**EXHIBIT 14 - FIGURE 5  
TELEVISION CHANNEL 6  
ALLOCATION STUDY**

prepared November 2003 for  
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 WBEW(FM) Chesterton, Indiana  
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Cavell, Mertz & Davis, Inc.  
 Manassas, Virginia

WITI(TV) Ch. 6 Milwaukee, WI  
 BLCT-19990129KT  
 Site  
 47 dBμ

Proposed WBEW(FM)  
 Ch. 208B Chesterton, IN  
 67.3 dBμ F(50,10)  
 Site

