

ENGINEERING STATEMENT

THE BOARD OF EDUCATION OF SOUTHFIELD APPLICATION FOR CONSTRUCTION PERMIT WSHJ-FM CHANNEL 202A - SOUTHFIELD, MICHIGAN

Background

The Board of Education of Southfield has retained the services of The XMOD Company to prepare the engineering documentation in support of an application for construction permit for WSHJ-FM CH202A (Facility ID#: 65449). The applicant proposes to relocate the transmitting antenna from an existing guyed tower to an adjacent self-supporting tower. The change in location is 0.02 kilometers at 304 degrees true.

This engineering statement describes the proposed changes and discusses aspects of the application that require further explanation.

Present Transmitter Site

The coordinates (NAD-27) of the present licensed tower site are:

42-28-12.0 North Latitude
83-15-50.0 West Longitude

The height of the antenna radiation center is 31 meters AGL, 232 meters AMSL and 13 meters height above average terrain.

Proposed Transmitter Site

The coordinates (NAD-27) of the proposed tower site are:

42-28-12.4 North Latitude
83-15-51.6 West Longitude

The height of the antenna radiation center is 39.4 meters AGL, 237 meters AMSL and 21 meters height above average terrain (See Exhibit E1).

The distance between the antenna sites is 0.02 km (70 feet) @ 304 degrees.

Predicted Interference Contours

A Channel Study was conducted to identify licensed and applications that need to be addressed because if the proposed change to the facility (See Exhibits E2 and E3). Exhibit E-2 is a Channel Study based on the present licensed facility with an effective radiated power (ERP) of 0.125 kW at 232 meters height above mean sea level (HAMSL) and Exhibit E2 is a Channel Study based on the proposed facility with an ERP of 0.120 kW at 237 meters HAMSL.

There will be a small increase of the predicted coverage area to the South of the site because of the 5 meter increase in height AMSL and terrain variations along study radials.

CIMX-FM Study (Facility ID #94688)

The WSHJ-FM tower site is 24 km from the US/Canadian border. CIMX-FM CH204C1, Windsor, Ontario (Facility ID #94688) operated with an ERP of 100 kW at 176 meters HAAT. The CIMX-FM 60 dBu F(50,50) protected contour overlap the WSHJ-FM CH202A service area. The WSHJ-FM CH202A predicted 80 dBu F(50,10) interference contour to second adjacent CIMX-FM CH204C1 facility falls completely within the US (See Exhibit 21). Therefore, the proposed facility is in compliance with provisions of the Working Agreement for Allocation of FM Broadcast Stations on Channels 201-300 under the Canada-United States FM Agreement of 1947.

WBFH-FM CH201A Study (Facility ID#: 5872)

WBFH-FM CH201A is 12.2 km at 351.4 degrees from the proposed site. The reduction in the proposed ERP from 0.125 kW to 0.120 kW will maintain the distance to the predicted interference contour in the direction of WBFH-FM as noted in Channel Studies E2 and E3. Exhibit 17 depicts the overlap area.

TV Channel 6 Protection Study

The Rules and Regulation Section 73.525 require a study of TV Channel 6 facilities within 257 km of a non-commercial educational (NCE-FM) station on Channel 202. WLNS-TV6, Lansing, MI (Facility ID#: 74420) operates with an ERP of 100kW @305m HAAT, CIII-TV Paris, Ontario (Facility ID#: 98651) operates with an ERP of 100kW @316m HAAT and an application (Facility ID#: 97070) for Channel 6 in Windsor, Ontario (0.56kW @0m HAAT) are within 257 km of the WSHJ-FM site.

WLNS-TV6, Lansing, MI Study (Facility ID#: 74420)

There will be no change in interference to WLNS-TV6 because of the proposed reduction in the ERP. The presence of existing predicted interference within the 47 dBu F(50,50) contour of WLNS-TV6 from CIMX, CH204C1, Windsor, Ontario is depicted in Exhibit 18. The WSHJ-FM CH202A predicted interference area to WLNS-TV6, Lansing, MI is within the predicted interference area of CIMX-FM CH204A, Windsor, ON. The predicted interference area is outside of the WLNS-TV6 Grade A, therefore, Exhibit 18 includes the adjustment of 6 dB for a portion of the WSHJ-FM and all of the CIMX-FM interference calculations as described in FCC Section 73.525 Paragraph (e)(1)(iii).

CIII-TV6, Paris, ON Study (Facility ID#: 98651)

The CIII-TV6 facility is 247 km @068 degrees from the WSHJ-FM site. The distance to the WSHJ-FM 80 dBu F(50,10) contour is 2.4 km. The distance to the 47 dBu F(50,50) contour is 105 km. Therefore, there is no predicted interference to the CIII-TV6 protected service area because the predicted contours do not intersect.

South Western Ontario B/Casting, Inc., Windsor, ON Study (Facility ID#: 97070)

The proposed Windsor facility is 25 km @133 degrees from the WSHJ-FM site. The distance to the WSHJ-FM 80 dBu F(50,10) contour is 2.4 km. Assuming a height above ground level of 32 meters for the proposed Windsor facility, the distance to the 47 dBu F(50,50) contour is 18.6 km. Therefore, there is no predicted interference to the proposed Windsor facility because the predicted contours do not intersect.

FAA Considerations

The applicant proposes a structure with an overall height of 144 feet (43.9 meters) above ground level (AGL). The structure is less than 200 feet (61 meters) AGL, is within the city limits of Southfield and shielded by surrounding structures. Therefore, no notification of the FAA is required pursuant to present Part 77 requirements and no antenna structure registration is required.

Environmental Considerations

A grant of this application would be deemed to have no significant effect on the quality of the human environment. It is also excluded from environmental processing pursuant to the provision of Section 1.1307(b).

The relocation of the proposed facility involves the use of the existing antenna mounted on the side of an existing structure, which does not correspond to any of the types of facilities specified in Section 1.1307(a).

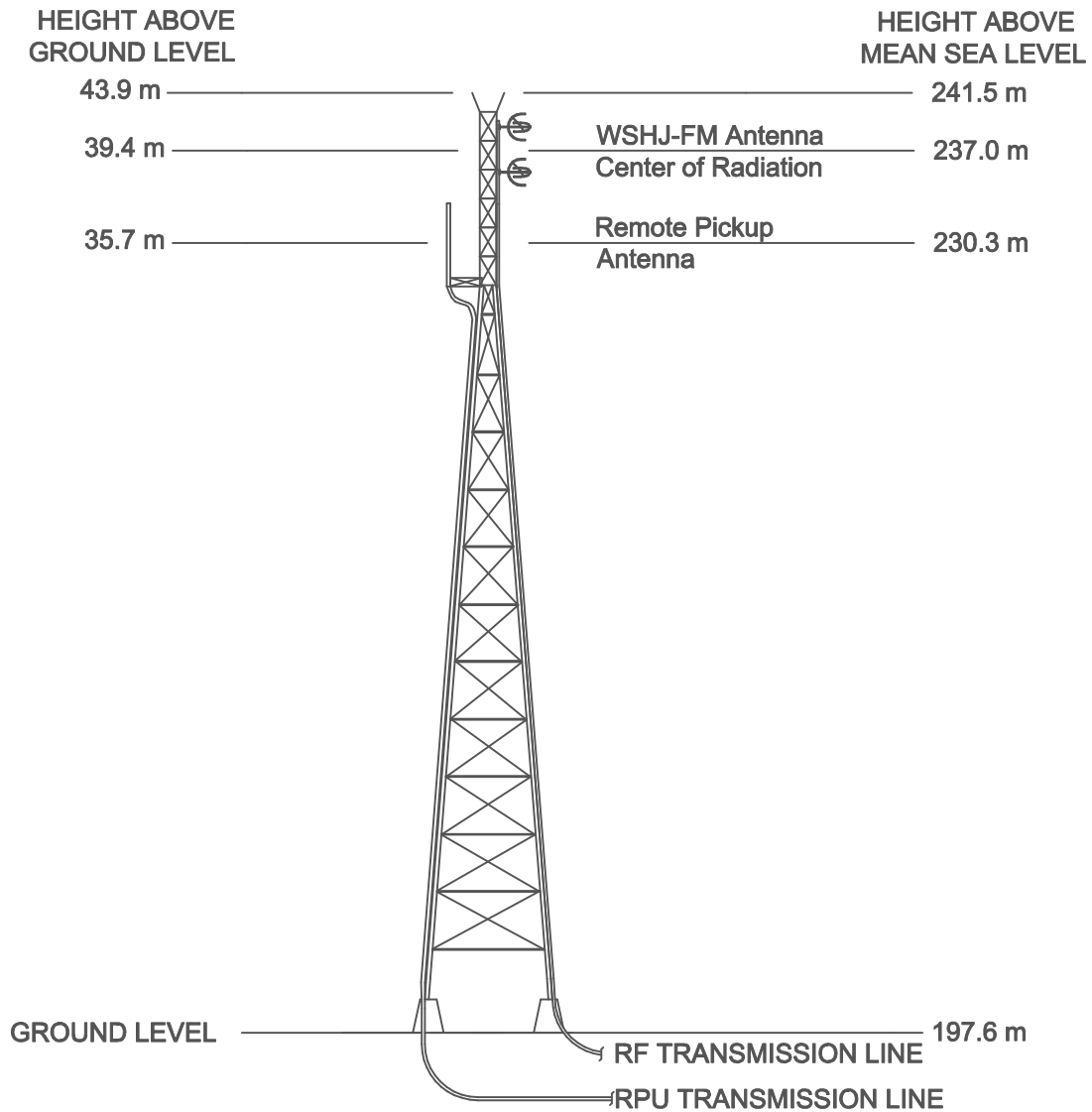
The power flux density at 2 meters above ground level is predicted to be less than 0.005 milliwatts per centimeter squared. This level is approximately 15 dB below the specified maximum permissible exposure (MPE) of 0.2 milliwatts per centimeter squared for general population/ uncontrolled space and approximately 22 dB below the MPE of 1.0 milliwatts per centimeter squared for worker/controlled space. Therefore, at ground level there is no potential for human exposure in spaces with general population/uncontrolled access and occupational/controlled worker access to exceed the FCC MPE limits. There are

The Board of Education of Southfield
Application for Construction Permit
WSHJ-FM, Southfield, Michigan

no nearby terrain features or structures having public or worker access which would exceed the MPE in the main beam of the antenna.

The base of the tower will be fenced to control worker and public access to the tower structure. There is, however, a potential for workers on the structure and in the vicinity of the antenna to be exposed to high RFR levels when the station is in operation. Worker exposure will be mitigated through proper instruction and signage. When any worker will be in the vicinity of the antenna elements, the station will cease operation. Procedural policies will be instituted to prevent accidental energizing of the transmitter/antenna while a worker is on the structure in a hazardous area.

WSHJ-FM SELF-SUPPORTING TOWER



**WSHJ-FM 88.3 MHz Southfield, MI
TOWER CONFIGURATION
5/29/2004**

EXHIBIT E-1

(NOT TO SCALE)

THE XMOD COMPANY

***** WSHJ_Licensed_Facility EXHIBIT E-2 FM CHANNEL INTERFERENCE STUDY *****

Job title: Licensed WSHJ-FM Facility

Proposed latitude: N 42 28 12.03
Proposed longitude: W 83 15 49.53
Proposed transmit antenna elevation(AMSL): 232.0 meters
Proposed maximum ERP: 0.1250 kW
Database file name: F:\CDBS_files\FM 40520.EDX
Protect maximum contours?: N

Proposed channel: 202A

CH	Call	Record	City	ST	Status	Bear.	Dist.	Reqd. Dist.	Result
202A	WBWC	5105	BEREA	OH	APP	135.6	162.6	90.8	
Prop F(50, 10)	40 dBu	21.2 km + WBWC	F(50, 50)	60 dBu	27.6 km =	48.8			
Prop F(50, 50)	60 dBu	6.3 km + WBWC	F(50, 10)	40 dBu	84.5 km =	90.8			
202A	WBWC	5133	BEREA	OH	LIC	135.6	162.6	87.4	
Prop F(50, 10)	40 dBu	21.2 km + WBWC	F(50, 50)	60 dBu	26.3 km =	47.5			
Prop F(50, 50)	60 dBu	6.3 km + WBWC	F(50, 10)	40 dBu	81.0 km =	87.4			
203B1	980522MD	5731	SANDUSKY	OH	APP	162.6	124.1	40.0	
Prop F(50, 10)	54 dBu	10.0 km + 980522	F(50, 50)	60 dBu	22.2 km =	32.3			
Prop F(50, 50)	60 dBu	7.0 km + 980522	F(50, 10)	54 dBu	33.0 km =	40.0			
203B1	981005MC	5732	SANDUSKY	OH	APP	162.6	124.1	40.4	
Prop F(50, 10)	54 dBu	10.0 km + 981005	F(50, 50)	60 dBu	22.4 km =	32.5			
Prop F(50, 50)	60 dBu	7.0 km + 981005	F(50, 10)	54 dBu	33.4 km =	40.4			
256B1	WFRO-FM	5747	FREMONT	OH	CP	166.8	109.8	11.0	
IF channel separation requirement = 11.0 km									
202A	WNFA	5750	PORT HURON	MI	LIC	47.9	87.3	60.5	
Prop F(50, 10)	40 dBu	19.9 km + WNFA	F(50, 50)	60 dBu	15.2 km =	35.1			
Prop F(50, 50)	60 dBu	6.0 km + WNFA	F(50, 10)	40 dBu	54.5 km =	60.5			
204C1	CIMX	5755	WINDSOR	ON	LIC	146.0	40.1	64.4	- 24.3
Prop F(50, 10)	80 dBu	2.2 km + CIMX	F(50, 50)	60 dBu	62.2 km =	64.4			
Prop F(50, 50)	60 dBu	6.7 km + CIMX	F(50, 10)	80 dBu	26.5 km =	33.2			
201A	CBEEFM	5757	CHATHAM	ON	LIC	90.9	97.1	21.9	
Prop F(50, 10)	54 dBu	8.9 km + CBEEFM	F(50, 50)	60 dBu	11.2 km =	20.1			
Prop F(50, 50)	60 dBu	6.2 km + CBEEFM	F(50, 10)	54 dBu	15.7 km =	21.9			
203A		5769	MOUNT CLEMENS	MI	APP	74.3	30.8	18.9	
Prop F(50, 10)	54 dBu	8.8 km +	F(50, 50)	60 dBu	9.1 km =	17.8			
Prop F(50, 50)	60 dBu	6.1 km +	F(50, 10)	54 dBu	12.7 km =	18.9			
202A	WXTS-FM	6212	TOLEDO	OH	LIC	195.2	92.2	31.9	
Prop F(50, 10)	40 dBu	24.8 km + WXTS-F	F(50, 50)	60 dBu	7.1 km =	31.9			
Prop F(50, 50)	60 dBu	7.4 km + WXTS-F	F(50, 10)	40 dBu	23.8 km =	31.2			
202A	WXUT	6222	TOLEDO	OH	LIC	197.9	94.9	34.8	
Prop F(50, 10)	40 dBu	24.5 km + WXUT	F(50, 50)	60 dBu	8.3 km =	32.8			
Prop F(50, 50)	60 dBu	7.3 km + WXUT	F(50, 10)	40 dBu	27.5 km =	34.8			
201A	WJOF	6258	MONROE	MI	LIC	188.6	61.9	23.0	
Prop F(50, 10)	54 dBu	10.8 km + WJOF	F(50, 50)	60 dBu	11.0 km =	21.8			

WSHJ_Licensed_Facility

Prop	F(50, 50)	60 dBu	7.5 km +	WJOF	F(50, 10)	54 dBu	15.4 km =	23.0	
201A	WJOF	6259	MONROE	MI	CP	188.6	61.9	23.7	
Prop	F(50, 10)	54 dBu	10.8 km +	WJOF	F(50, 50)	60 dBu	11.3 km =	22.1	
Prop	F(50, 50)	60 dBu	7.5 km +	WJOF	F(50, 10)	54 dBu	16.2 km =	23.7	
201A	WSDP	6263	PLYMOUTH	MI	LIC	234.6	23.6	18.1	5.4
Prop	F(50, 10)	54 dBu	9.0 km +	WSDP	F(50, 50)	60 dBu	8.4 km =	17.4	
Prop	F(50, 50)	60 dBu	6.3 km +	WSDP	F(50, 10)	54 dBu	11.8 km =	18.1	
202A	WCBN-FM	6272	ANN ARBOR	MI	LIC	241.2	44.4	38.6	5.7
Prop	F(50, 10)	40 dBu	19.9 km +	WCBN-F	F(50, 50)	60 dBu	9.8 km =	29.7	
Prop	F(50, 50)	60 dBu	6.0 km +	WCBN-F	F(50, 10)	40 dBu	32.6 km =	38.6	
202A	WSHJ	6277	SOUTHFIELD	MI	LIC	265.4	0.0	26.5	-26.5
Prop	F(50, 10)	40 dBu	19.9 km +	WSHJ	F(50, 50)	60 dBu	6.2 km =	26.1	
Prop	F(50, 50)	60 dBu	6.0 km +	WSHJ	F(50, 10)	40 dBu	20.5 km =	26.5	
201A	WBFH	6280	BLOOMFIELD HILLS	MI	LIC	351.4	12.2	14.7	-2.6
Prop	F(50, 10)	54 dBu	8.6 km +	WBFH	F(50, 50)	60 dBu	6.2 km =	14.7	
Prop	F(50, 50)	60 dBu	6.0 km +	WBFH	F(50, 10)	54 dBu	8.7 km =	14.7	
202A	WXOU	6285	AUBURN HILLS	MI	LIC	5.8	26.8	24.0	2.8
Prop	F(50, 10)	40 dBu	19.9 km +	WXOU	F(50, 50)	60 dBu	4.1 km =	24.0	
Prop	F(50, 50)	60 dBu	6.0 km +	WXOU	F(50, 10)	40 dBu	12.8 km =	18.8	
205A	WGRI	6289	FLINT	MI	LIC	330.4	60.3	8.1	
Prop	F(50, 10)	100 dBu	0.0 km +	WGRI	F(50, 50)	60 dBu	8.1 km =	8.1	
Prop	F(50, 50)	60 dBu	6.0 km +	WGRI	F(50, 10)	100 dBu	0.0 km =	6.0	
201D	WHPR-FM	6331	HIGHLAND PARK	MI	CP	116.0	14.8	11.8	3.0
Prop	F(50, 10)	54 dBu	8.7 km +	WHPR-F	F(50, 50)	60 dBu	3.1 km =	11.8	
Prop	F(50, 50)	60 dBu	6.1 km +	WHPR-F	F(50, 10)	54 dBu	4.4 km =	10.5	
205A	WAKL	6335	FLINT	MI	CP	335.8	62.2	11.0	
Prop	F(50, 10)	100 dBu	0.0 km +	WAKL	F(50, 50)	60 dBu	11.0 km =	11.0	
Prop	F(50, 50)	60 dBu	6.0 km +	WAKL	F(50, 10)	100 dBu	0.0 km =	6.0	
255A	WOWE	6346	VASSAR	MI	LIC	347.8	94.2	10.0	
IF channel separation requirement = 10.0 km									
203A	980505MD	6355	GAGETOWN	MI	APP	5.3	143.8	48.7	
Prop	F(50, 10)	54 dBu	8.6 km +	980505	F(50, 50)	60 dBu	27.6 km =	36.2	
Prop	F(50, 50)	60 dBu	6.0 km +	980505	F(50, 10)	54 dBu	42.7 km =	48.7	
203C3	981231MF	6356	CASS CITY	MI	APP	7.4	129.5	56.1	
Prop	F(50, 10)	54 dBu	8.6 km +	981231	F(50, 50)	60 dBu	30.6 km =	39.1	
Prop	F(50, 50)	60 dBu	6.0 km +	981231	F(50, 10)	54 dBu	50.1 km =	56.1	
203C3	990104MD	6357	ELKTON	MI	APP	5.3	143.8	59.2	
Prop	F(50, 10)	54 dBu	8.6 km +	990104	F(50, 50)	60 dBu	34.2 km =	42.7	
Prop	F(50, 50)	60 dBu	6.0 km +	990104	F(50, 10)	54 dBu	53.2 km =	59.2	
204A		6377	TAYMOUTH TOWNSHIP	MI	APP	334.3	97.2	9.3	
Prop	F(50, 10)	80 dBu	2.0 km +		F(50, 50)	60 dBu	7.4 km =	9.3	
Prop	F(50, 50)	60 dBu	6.0 km +		F(50, 10)	80 dBu	2.4 km =	8.4	
201A	WVKM	6387	GOODLAND TOWNSHIP	MI	LIC	11.5	79.9	34.3	
Prop	F(50, 10)	54 dBu	8.6 km +	WVKM	F(50, 50)	60 dBu	19.1 km =	27.7	
Prop	F(50, 50)	60 dBu	6.0 km +	WVKM	F(50, 10)	54 dBu	28.3 km =	34.3	
203B1	WYSA	6909	WAUSEON	OH	LIC	217.2	126.8	27.0	
Prop	F(50, 10)	54 dBu	9.5 km +	WYSA	F(50, 50)	60 dBu	13.6 km =	23.1	

WSHJ_Licensed_Facility

Prop F(50, 50)	60 dBu	6.7 km + WYSA	F(50, 10)	54 dBu	20.3 km =	27.0	
256B	WFMK	6936 EAST LANSING	MI LIC	283.2	104.0	14.0	
IF channel separation requirement = 14.0 km							
205A	WDBM	6937 EAST LANSING	MI LIC	285.2	102.8	19.8	
Prop F(50, 10)	100 dBu	0.0 km + WDBM	F(50, 50)	60 dBu	19.8 km =	19.8	
Prop F(50, 50)	60 dBu	6.0 km + WDBM	F(50, 10)	100 dBu	1.9 km =	7.9	
201A	WLGH	6945 LEROY TOWNSHIP	MI LIC	286.7	93.5	40.7	
Prop F(50, 10)	54 dBu	8.6 km + WLGH	F(50, 50)	60 dBu	23.1 km =	31.7	
Prop F(50, 50)	60 dBu	6.0 km + WLGH	F(50, 10)	54 dBu	34.7 km =	40.7	
201B	WLGH	6946 LEROY TOWNSHIP	MI CP	286.7	93.5	46.4	
Prop F(50, 10)	54 dBu	8.6 km + WLGH	F(50, 50)	60 dBu	26.8 km =	35.4	
Prop F(50, 50)	60 dBu	6.0 km + WLGH	F(50, 10)	54 dBu	40.4 km =	46.4	
202A	990618MD	6971 ONSTED	MI CP	238.1	86.9	30.0	
Prop F(50, 10)	40 dBu	20.2 km + 990618	F(50, 50)	60 dBu	7.1 km =	27.4	
Prop F(50, 50)	60 dBu	6.1 km + 990618	F(50, 10)	40 dBu	23.9 km =	30.0	
202A	WAAQ	6973 ONSTED	MI LIC	238.6	89.1	33.1	
Prop F(50, 10)	40 dBu	20.1 km + WAAQ	F(50, 50)	60 dBu	8.1 km =	28.2	
Prop F(50, 50)	60 dBu	6.1 km + WAAQ	F(50, 10)	40 dBu	27.0 km =	33.1	
203A	990607ME	6975 JACKSON	MI LIC	256.7	92.7	14.2	
Prop F(50, 10)	54 dBu	8.6 km + 990607	F(50, 50)	60 dBu	5.7 km =	14.2	
Prop F(50, 50)	60 dBu	6.0 km + 990607	F(50, 10)	54 dBu	8.0 km =	14.1	
202A	WAAQ	6978 ONSTED	MI APP	238.6	89.1	40.9	
Prop F(50, 10)	40 dBu	20.1 km + WAAQ	F(50, 50)	60 dBu	10.3 km =	30.4	
Prop F(50, 50)	60 dBu	6.1 km + WAAQ	F(50, 10)	40 dBu	34.8 km =	40.9	
202C2	WEJC	7015 WHITE STAR	MI LIC	328.2	195.1	135.7	
Prop F(50, 10)	40 dBu	19.9 km + WEJC	F(50, 50)	60 dBu	50.6 km =	70.5	
Prop F(50, 50)	60 dBu	6.0 km + WEJC	F(50, 10)	40 dBu	129.7 km =	135.7	
202C1	WEJC	7016 WHITE STAR	MI APP	328.2	195.1	158.8	
Prop F(50, 10)	40 dBu	19.9 km + WEJC	F(50, 50)	60 dBu	59.4 km =	79.3	
Prop F(50, 50)	60 dBu	6.0 km + WEJC	F(50, 10)	40 dBu	152.8 km =	158.8	
6 TV	WLNSTV	LANSING	MI LIC	285.2	94.5	113.6	- 19.1
Prop F(50, 10)	51 dBu	10.4 km + WLNSTV	F(50, 50)	47 dBu	103.2 km =	113.6	

***** End of channel 202 study *****

WSHJ_Proposed Facility
EXHIBIT E-3 FM CHANNEL INTERFERENCE STUDY

Job title: Proposed WSHJ-FM Facility

Proposed latitude: N 42 28 12.43
 Proposed longitude: W 83 15 51.13
 Proposed transmit antenna elevation(AMSL): 237.0 meters
 Proposed maximum ERP: 0.1200 kW
 Database file name: F:\CDBS_files\FM 40520.EDX
 Protect maximum contours?: N

Proposed channel: 202A

CH	Call	Record	City	ST	Status	Bear.	Dist.	Reqd. Dist.	Result
202A	WBWC	5105	BEREA	OH	APP	135.6	162.6	91.2	
Prop F(50, 10)	40 dBu	22.4 km + WBWC	F(50, 50)	60 dBu	27.6 km =	50.1			
Prop F(50, 50)	60 dBu	6.7 km + WBWC	F(50, 10)	40 dBu	84.5 km =	91.2			
202A	WBWC	5133	BEREA	OH	LIC	135.6	162.6	87.7	
Prop F(50, 10)	40 dBu	22.4 km + WBWC	F(50, 50)	60 dBu	26.3 km =	48.7			
Prop F(50, 50)	60 dBu	6.7 km + WBWC	F(50, 10)	40 dBu	81.0 km =	87.7			
203B1	980522MD	5731	SANDUSKY	OH	APP	162.6	124.2	40.4	
Prop F(50, 10)	54 dBu	10.5 km + 980522	F(50, 50)	60 dBu	22.2 km =	32.8			
Prop F(50, 50)	60 dBu	7.3 km + 980522	F(50, 10)	54 dBu	33.0 km =	40.4			
203B1	981005MC	5732	SANDUSKY	OH	APP	162.6	124.2	40.7	
Prop F(50, 10)	54 dBu	10.5 km + 981005	F(50, 50)	60 dBu	22.4 km =	33.0			
Prop F(50, 50)	60 dBu	7.3 km + 981005	F(50, 10)	54 dBu	33.4 km =	40.7			
256B1	WFRO-FM	5747	FREMONT	OH	CP	166.8	109.8	11.0	
IF channel separation requirement = 11.0 km									
202A	WNFA	5750	PORT HURON	MI	LIC	47.9	87.3	60.4	
Prop F(50, 10)	40 dBu	19.7 km + WNFA	F(50, 50)	60 dBu	15.2 km =	34.9			
Prop F(50, 50)	60 dBu	5.9 km + WNFA	F(50, 10)	40 dBu	54.5 km =	60.4			
204C1	CIMX	5755	WINDSOR	ON	LIC	145.9	40.1	64.5	- 24.3
Prop F(50, 10)	80 dBu	2.3 km + CIMX	F(50, 50)	60 dBu	62.2 km =	64.5			
Prop F(50, 50)	60 dBu	7.1 km + CIMX	F(50, 10)	80 dBu	26.5 km =	33.5			
201A	CBEEFM	5757	CHATHAM	ON	LIC	90.9	97.2	22.3	
Prop F(50, 10)	54 dBu	9.4 km + CBEEFM	F(50, 50)	60 dBu	11.2 km =	20.6			
Prop F(50, 50)	60 dBu	6.6 km + CBEEFM	F(50, 10)	54 dBu	15.7 km =	22.3			
203A		5769	MOUNT CLEMENS	MI	APP	74.4	30.8	19.2	
Prop F(50, 10)	54 dBu	9.3 km +	F(50, 50)	60 dBu	9.1 km =	18.4			
Prop F(50, 50)	60 dBu	6.5 km +	F(50, 10)	54 dBu	12.7 km =	19.2			
202A	WXTS-FM	6212	TOLEDO	OH	LIC	195.1	92.2	33.0	
Prop F(50, 10)	40 dBu	25.9 km + WXTS-F	F(50, 50)	60 dBu	7.1 km =	33.0			
Prop F(50, 50)	60 dBu	7.8 km + WXTS-F	F(50, 10)	40 dBu	23.8 km =	31.5			
202A	WXUT	6222	TOLEDO	OH	LIC	197.9	94.9	35.2	
Prop F(50, 10)	40 dBu	25.6 km + WXUT	F(50, 50)	60 dBu	8.3 km =	33.9			
Prop F(50, 50)	60 dBu	7.7 km + WXUT	F(50, 10)	40 dBu	27.5 km =	35.2			
201A	WJOF	6258	MONROE	MI	LIC	188.6	61.9	23.3	
Prop F(50, 10)	54 dBu	11.2 km + WJOF	F(50, 50)	60 dBu	11.0 km =	22.2			

WSHJ_Proposed_Facility

Prop	F(50, 50)	60 dBu	7.9 km +	WJOF	F(50, 10)	54 dBu	15.4 km =	23.3	
201A	WJOF	6259	MONROE	MI	CP	188.6	61.9	24.1	
Prop	F(50, 10)	54 dBu	11.2 km +	WJOF	F(50, 50)	60 dBu	11.3 km =	22.6	
Prop	F(50, 50)	60 dBu	7.9 km +	WJOF	F(50, 10)	54 dBu	16.2 km =	24.1	
201A	WSDP	6263	PLYMOUTH	MI	LIC	234.6	23.6	18.5	5.1
Prop	F(50, 10)	54 dBu	9.6 km +	WSDP	F(50, 50)	60 dBu	8.4 km =	17.9	
Prop	F(50, 50)	60 dBu	6.7 km +	WSDP	F(50, 10)	54 dBu	11.8 km =	18.5	
202A	WCBN-FM	6272	ANN ARBOR	MI	LIC	241.1	44.3	38.8	5.5
Prop	F(50, 10)	40 dBu	20.6 km +	WCBN-F	F(50, 50)	60 dBu	9.8 km =	30.4	
Prop	F(50, 50)	60 dBu	6.2 km +	WCBN-F	F(50, 10)	40 dBu	32.6 km =	38.8	
202A	WSHJ	6277	SOUTHFIELD	MI	LIC	116.6	0.0	27.6	-27.6
Prop	F(50, 10)	40 dBu	21.7 km +	WSHJ	F(50, 50)	60 dBu	5.9 km =	27.6	
Prop	F(50, 50)	60 dBu	6.5 km +	WSHJ	F(50, 10)	40 dBu	19.7 km =	26.2	
201A	WBFH	6280	BLOOMFIELD HILLS	MI	LIC	351.5	12.2	14.6	-2.5
Prop	F(50, 10)	54 dBu	8.5 km +	WBFH	F(50, 50)	60 dBu	6.2 km =	14.6	
Prop	F(50, 50)	60 dBu	5.9 km +	WBFH	F(50, 10)	54 dBu	8.7 km =	14.6	
202A	WXOU	6285	AUBURN HILLS	MI	LIC	5.9	26.8	23.8	3.0
Prop	F(50, 10)	40 dBu	19.7 km +	WXOU	F(50, 50)	60 dBu	4.1 km =	23.8	
Prop	F(50, 50)	60 dBu	5.9 km +	WXOU	F(50, 10)	40 dBu	12.8 km =	18.8	
205A	WGRI	6289	FLINT	MI	LIC	330.4	60.2	8.1	
Prop	F(50, 10)	100 dBu	0.0 km +	WGRI	F(50, 50)	60 dBu	8.1 km =	8.1	
Prop	F(50, 50)	60 dBu	5.9 km +	WGRI	F(50, 10)	100 dBu	0.0 km =	5.9	
201D	WHPR-FM	6331	HIGHLAND PARK	MI	CP	116.0	14.8	12.4	2.4
Prop	F(50, 10)	54 dBu	9.3 km +	WHPR-F	F(50, 50)	60 dBu	3.1 km =	12.4	
Prop	F(50, 50)	60 dBu	6.5 km +	WHPR-F	F(50, 10)	54 dBu	4.4 km =	10.9	
205A	WAKL	6335	FLINT	MI	CP	335.8	62.2	11.0	
Prop	F(50, 10)	100 dBu	0.0 km +	WAKL	F(50, 50)	60 dBu	11.0 km =	11.0	
Prop	F(50, 50)	60 dBu	5.9 km +	WAKL	F(50, 10)	100 dBu	0.0 km =	5.9	
255A	WOWE	6346	VASSAR	MI	LIC	347.8	94.2	10.0	
IF channel separation requirement = 10.0 km									
203A	980505MD	6355	GAGETOWN	MI	APP	5.3	143.8	48.6	
Prop	F(50, 10)	54 dBu	8.5 km +	980505	F(50, 50)	60 dBu	27.6 km =	36.1	
Prop	F(50, 50)	60 dBu	5.9 km +	980505	F(50, 10)	54 dBu	42.7 km =	48.6	
203C3	981231MF	6356	CASS CITY	MI	APP	7.4	129.4	56.0	
Prop	F(50, 10)	54 dBu	8.5 km +	981231	F(50, 50)	60 dBu	30.6 km =	39.0	
Prop	F(50, 50)	60 dBu	5.9 km +	981231	F(50, 10)	54 dBu	50.1 km =	56.0	
203C3	990104MD	6357	ELKTON	MI	APP	5.3	143.8	59.1	
Prop	F(50, 10)	54 dBu	8.5 km +	990104	F(50, 50)	60 dBu	34.2 km =	42.6	
Prop	F(50, 50)	60 dBu	5.9 km +	990104	F(50, 10)	54 dBu	53.2 km =	59.1	
204A		6377	TAYMOUTH TOWNSHIP	MI	APP	334.3	97.2	9.3	
Prop	F(50, 10)	80 dBu	1.9 km +		F(50, 50)	60 dBu	7.4 km =	9.3	
Prop	F(50, 50)	60 dBu	5.9 km +		F(50, 10)	80 dBu	2.4 km =	8.3	
201A	WVKM	6387	GOODLAND TOWNSHIP	MI	LIC	11.5	79.9	34.3	
Prop	F(50, 10)	54 dBu	8.5 km +	WVKM	F(50, 50)	60 dBu	19.1 km =	27.6	
Prop	F(50, 50)	60 dBu	5.9 km +	WVKM	F(50, 10)	54 dBu	28.3 km =	34.3	
203B1	WYSA	6909	WAUSEON	OH	LIC	217.2	126.8	27.3	
Prop	F(50, 10)	54 dBu	10.1 km +	WYSA	F(50, 50)	60 dBu	13.6 km =	23.7	

WSHJ_Proposed_Facility

Prop F(50, 50) 60 dBu 7.0 km + WYSA F(50, 10) 54 dBu 20.3 km = 27.3

256B WFMK 6936 EAST LANSING MI LIC 283.2 104.0 14.0
IF channel separation requirement = 14.0 km

205A WDBM 6937 EAST LANSING MI LIC 285.2 102.8 19.8
Prop F(50, 10) 100 dBu 0.0 km + WDBM F(50, 50) 60 dBu 19.8 km = 19.8
Prop F(50, 50) 60 dBu 5.9 km + WDBM F(50, 10) 100 dBu 1.9 km = 7.8

201A WLGH 6945 LEROY TOWNSHIP MI LIC 286.7 93.4 40.7
Prop F(50, 10) 54 dBu 8.5 km + WLGH F(50, 50) 60 dBu 23.1 km = 31.6
Prop F(50, 50) 60 dBu 5.9 km + WLGH F(50, 10) 54 dBu 34.7 km = 40.7

201B WLGH 6946 LEROY TOWNSHIP MI CP 286.7 93.5 46.3
Prop F(50, 10) 54 dBu 8.5 km + WLGH F(50, 50) 60 dBu 26.8 km = 35.3
Prop F(50, 50) 60 dBu 5.9 km + WLGH F(50, 10) 54 dBu 40.4 km = 46.3

202A 990618MD 6971 ONSTED MI CP 238.1 86.8 30.3
Prop F(50, 10) 40 dBu 21.5 km + 990618 F(50, 50) 60 dBu 7.1 km = 28.6
Prop F(50, 50) 60 dBu 6.4 km + 990618 F(50, 10) 40 dBu 23.9 km = 30.3

202A WAAQ 6973 ONSTED MI LIC 238.6 89.0 33.4
Prop F(50, 10) 40 dBu 21.4 km + WAAQ F(50, 50) 60 dBu 8.1 km = 29.5
Prop F(50, 50) 60 dBu 6.4 km + WAAQ F(50, 10) 40 dBu 27.0 km = 33.4

203A 990607ME 6975 JACKSON MI LIC 256.6 92.7 14.1
Prop F(50, 10) 54 dBu 8.5 km + 990607 F(50, 50) 60 dBu 5.7 km = 14.1
Prop F(50, 50) 60 dBu 5.9 km + 990607 F(50, 10) 54 dBu 8.0 km = 14.0

202A WAAQ 6978 ONSTED MI APP 238.6 89.0 41.2
Prop F(50, 10) 40 dBu 21.4 km + WAAQ F(50, 50) 60 dBu 10.3 km = 31.7
Prop F(50, 50) 60 dBu 6.4 km + WAAQ F(50, 10) 40 dBu 34.8 km = 41.2

202C2 WEJC 7015 WHITE STAR MI LIC 328.2 195.1 135.7
Prop F(50, 10) 40 dBu 19.7 km + WEJC F(50, 50) 60 dBu 50.6 km = 70.3
Prop F(50, 50) 60 dBu 5.9 km + WEJC F(50, 10) 40 dBu 129.7 km = 135.7

202C1 WEJC 7016 WHITE STAR MI APP 328.2 195.1 158.8
Prop F(50, 10) 40 dBu 19.7 km + WEJC F(50, 50) 60 dBu 59.4 km = 79.1
Prop F(50, 50) 60 dBu 5.9 km + WEJC F(50, 10) 40 dBu 152.8 km = 158.8

6 TV WLNSTV LANSING MI LIC 285.2 94.4 113.5 - 19.1
Prop F(50, 10) 51 dBu 10.3 km + WLNSTV F(50, 50) 47 dBu 103.2 km = 113.5

***** End of channel 202 study *****