Educational Media Foundation
5700 West Oaks Boulevard
Rocklin, CA 95765

Channel Study

REFERENCE — CH# 262D - 100.3 MHz, Pwr= 0.099 kW, HAAT= 94.8 M, COR= 356 M — DISPLAY DATES
42 43 58.0 N. — Average Protected F(50-50)= 10.0 km — DATA 05-09-17
84 33 13.0 W. — Omni-directional — SEARCH 05-11-17

CH	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
264B	WITL-FM	LIC	CN	145.3	7.70	42 40 33.0	26.500	5.8	64.8	-8.0*<	-58.5*<
Lansing		MI		325.3	BLH19850610KF	84 30 00.0	196	465	Townsquare Media Lansing L		
262D	W262BD!	LIC	C	0.0	0.00	42 43 58.0	0.022	23.6	7.1	-33.9	-41.9
Dimondale		MI		0.0	BMLFT20150629AAY	84 33 13.0	95	356	Educational Media Foundati		
262B	WNIC	LIC	CN	107.9	121.56	42 23 22.0	32.000	131.7	64.1	-20.1*<	9.1
Dearborn		MI		288.8	BLH19850719KR	83 08 53.0	183	374	Amfm Radio Licenses, L.l.c		
260D	W260BX	LIC	DC	153.9	1.13	42 43 25.0	0.190	0.7	10.8	-9.6*<	-10.3*<
Lansing		MI		333.9	BLFT20091026AAW	84 32 51.0	108	370	Family Life Broadcasting S		
259C0	R14902	RSV-R		0.4	86.96	43 30 56.0	100.000	12.1	83.1	64.6	3.1
Midland		MI		180.4		84 32 49.0	450	662			
259C0	WUGN	LIC	CX	0.4	86.99	43 30 57.0	100.000	10.2	72.6	66.5	13.7
Midland		MI		180.4	BLED20130702ABR	84 32 45.0	304	519	Family Life Broadcasting S		
261A	WBCH-FM	LIC	C	258.9	60.55	42 37 34.0	3.000	35.9	23.8	14.6	22.7
Hastings		MI		78.4	BMLH20040629AAF	85 16 41.0	90	359	Barry Broadcasting Co.		
262A	WLKI	LIC	NCN	197.7	122.55	41 40 51.0	4.000	84.2	28.3	28.5	61.1
Angola		IN		17.4	BLH19920429KA	85 00 05.0	120	428	Swick Broadcasting Company		
260D	W260BH	LIC	C	199.6	55.84	42 15 33.0	0.039	0.4	6.0	45.5	49.2
Albion		MI		19.4	BLFT20050823ABZ	84 46 53.0	51	345	Elmer Hess, Jr.		
262C1	WQON	LIC	NCN	356.9	204.52	44 34 15.0	60.000	140.2	52.3	54.1	117.7
Grayling		MI		176.8	BLH19950714KB	84 41 33.0	131	497	Blarney Stone Broadcasting		
263A	WTRV	LIC	CX	288.5	101.92	43 00 59.0	3.000	36.4	24.1	55.3	63.5
Walker		MI		107.7	BLH20060602AAJ	85 44 24.0	100	320	Townsquare Media Of Grand		
263A	WSGW-FM	LIC	NCX	26.5	103.19	43 33 42.0	3.000	36.7	24.3	56.3	64.7
Carrollton		MI		206.9	BLH20130822AAZ	83 58 52.0	100	285	Alpha Media Licensee Llc		
261D	W261BH	LIC	C	63.7	78.35	43 02 29.0	0.038	9.0	6.3	59.4	58.1
Flint		MI		244.3	BLFT20071003ACL	83 41 28.0	58	290	Educational Media Foundati		
262D	W262AF	LIC	C	239.9	98.00	42 17 11.0	0.038	18.9	5.7	69.1	58.5
Parchment		MI		59.2	BLFT20040830ABJ	85 34 56.0	53	316	Fcr Broadcasting, Inc.		

Terrain database is FCC NGDC 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference Zone= East Zone, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
< = Contour Overlap

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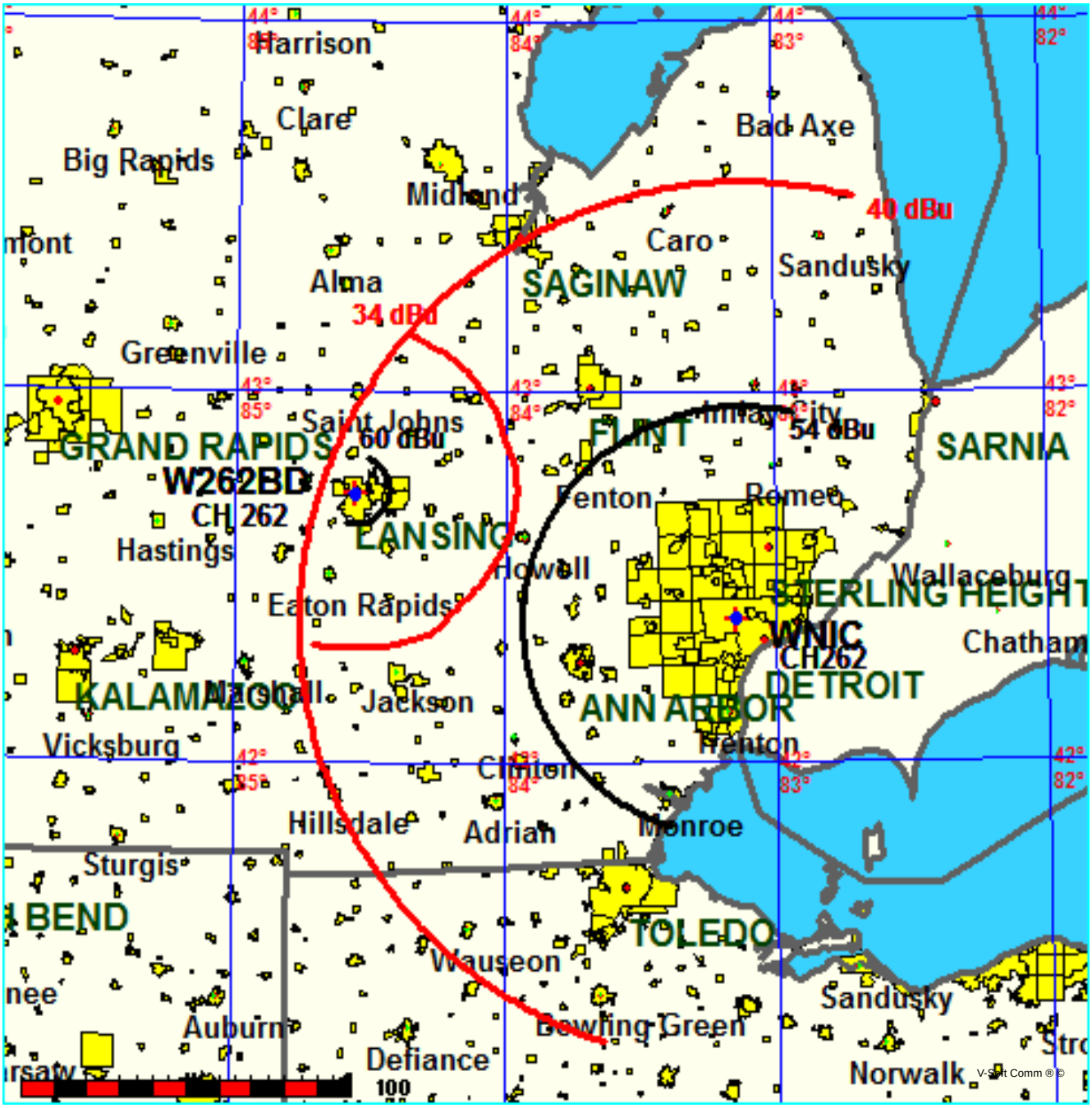
FMCommander Single Allocation Study - 05-11-2017 - FCC NGDC 30 Sec
W262BD's Overlaps (In= -20.12 km, Out= 9.11 km)

W262BD CH 262 D
Lat= 42 43 58.0, Lng= 84 33 13.0
0.099 kW 94.8 m HAAT, 356 m COR
Prot.= 60 dBu, Intef.= 34 dBu

WNIC CH 262 B BLH19850719KR
Lat= 42 23 22.0, Lng= 83 08 53.0
32.0 kW 183 m HAAT, 374 m COR
Prot.= 54 dBu, Intef.= 40 dBu



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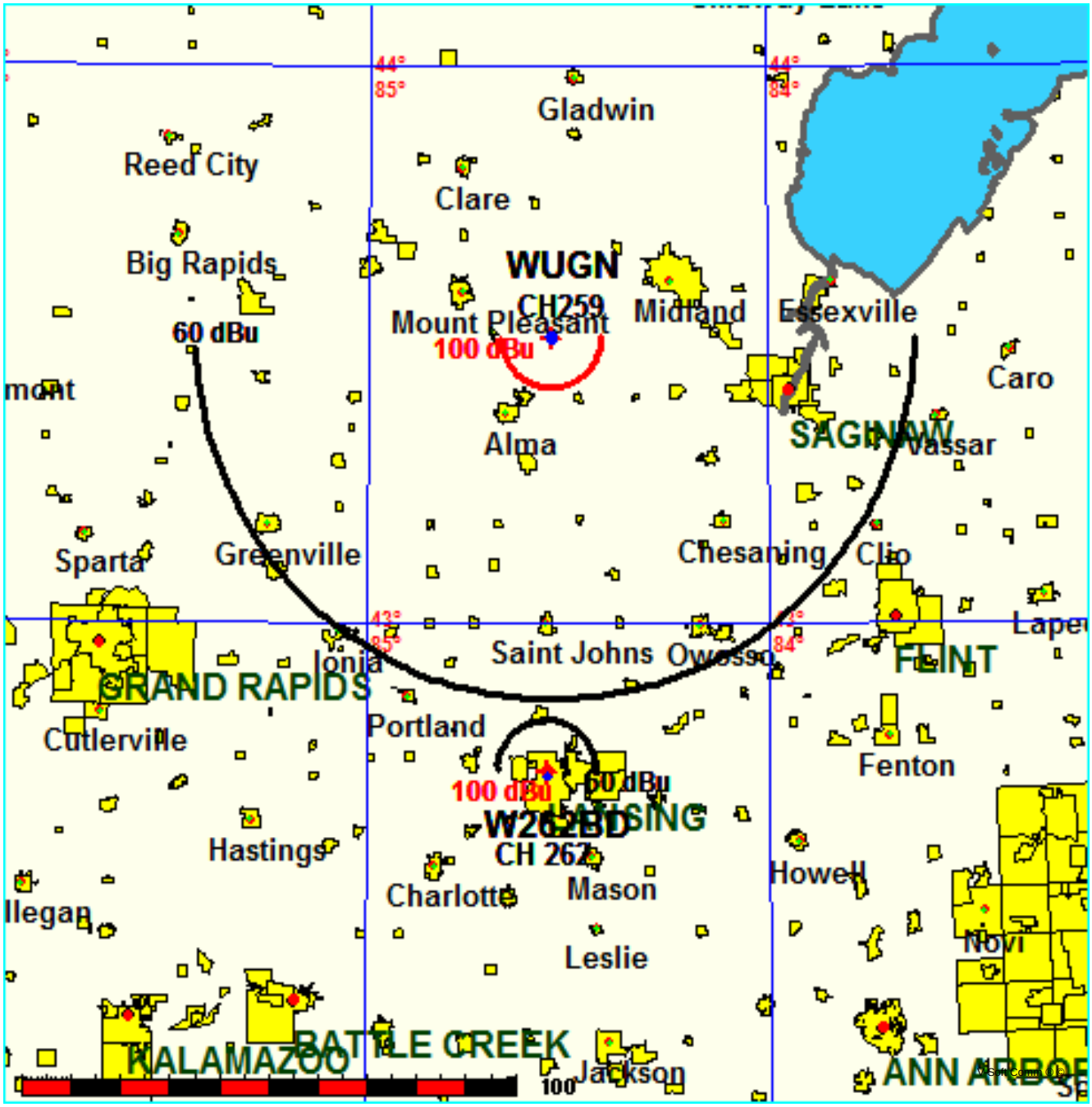
FMCommander Single Allocation Study - 05-11-2017 - FCC NGDC 30 Sec
W262BD's Overlaps (In= 66.52 km, Out= 13.72 km)

W262BD CH 262 D
Lat= 42 43 58.0, Lng= 84 33 13.0
0.099 kW 94.8 m HAAT, 356 m COR
Prot.= 60 dBu, Intef.= 100 dBu

WUGN CH 259 C0 BLED20130702ABR
Lat= 43 30 57.0, Lng= 84 32 45.0
100.0 kW 304 m HAAT, 519 m COR
Prot.= 60 dBu, Intef.= 100 dBu



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Compliance with C.F.R. 74.1204

The proposed FM Translator to operate on channel 262 is located within the protected 54dBu contour of second adjacent channel station WITL, channel 264B, Lansing, MI. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for W262BD.P:	99 watts
The proposed COR for W262BD.P:	97 meters
WILT F(50/50) contour at proposed site:	95.5dBu
The F(50/10) contour of proposed W262BD.P:	135.5dBu

The predicted distance to the 135.5dbu interfering contour is 11.7 meters. Taking into account the vertical elevation pattern of the SWR FMEC single bay circularly polarized antenna and the height above ground of 97m, it has been determined that the interfering contour of 135.5dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 90.9m above ground at a distance of 8.6m from the antenna.

As can be seen in Exhibit 13–A2 there are no surrounding structures which are tall enough to enter the interfering contour within the 11.7m distance from the antenna.

Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1
74.1204(d) Showing
W262BD
Dimondale, MI

ERP (kw): 0.099
Height of Antenna above Ground (m): 97
Translator's IX Contour: 135.5
Antenna Type: SWR FMEC/1

Depression Angle from Horizon	Antenna Relative Field	ERP (kw) from the Antenna RF	Dist. To IX Contour (m)	Height IX Contour Above Ground (m)
0	1.000	0.0990	11.7170	97.000
5	0.997	0.0984	11.6819	95.982
10	0.986	0.0962	11.5530	94.994
15	0.969	0.0930	11.3538	94.061
20	0.946	0.0886	11.0843	93.209
25	0.916	0.0831	10.7328	92.464
30	0.879	0.0765	10.2993	91.850
35	0.837	0.0694	9.8072	91.375
40	0.789	0.0616	9.2447	91.058
45	0.736	0.0536	8.6237	90.902
50	0.679	0.0456	7.9559	90.905
55	0.616	0.0376	7.2177	91.088
60	0.550	0.0299	6.4444	91.419
65	0.480	0.0228	5.6242	91.903
70	0.408	0.0165	4.7805	92.508
75	0.333	0.0110	3.9018	93.231
80	0.256	0.0065	2.9996	94.046
85	0.178	0.0031	2.0856	94.922
90	0.100	0.0010	1.1717	95.828

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Compliance with C.F.R. 74.1204

The proposed FM Translator to operate on channel 262 is located within the protected 60dBu contour of second adjacent channel station W260BX, channel 262D, Lansing, MI. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for W262BD.P:	99 watts
The proposed COR for W262BD.P:	97 meters
W260BX F(50/50) contour at proposed site:	95.6dBu
The F(50/10) contour of proposed W262BD.P:	135.6dBu

The predicted distance to the 135.6dbu interfering contour is 11.6 meters. Taking into account the vertical elevation pattern of the SWR FMEC single bay circularly polarized antenna and the height above ground of 97m, it has been determined that the interfering contour of 135.6dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 91m above ground at a distance of 8.5m from the antenna.

As can be seen in Exhibit 13–A2 there are no surrounding structures which are tall enough to enter the interfering contour within the 11.6m distance from the antenna.

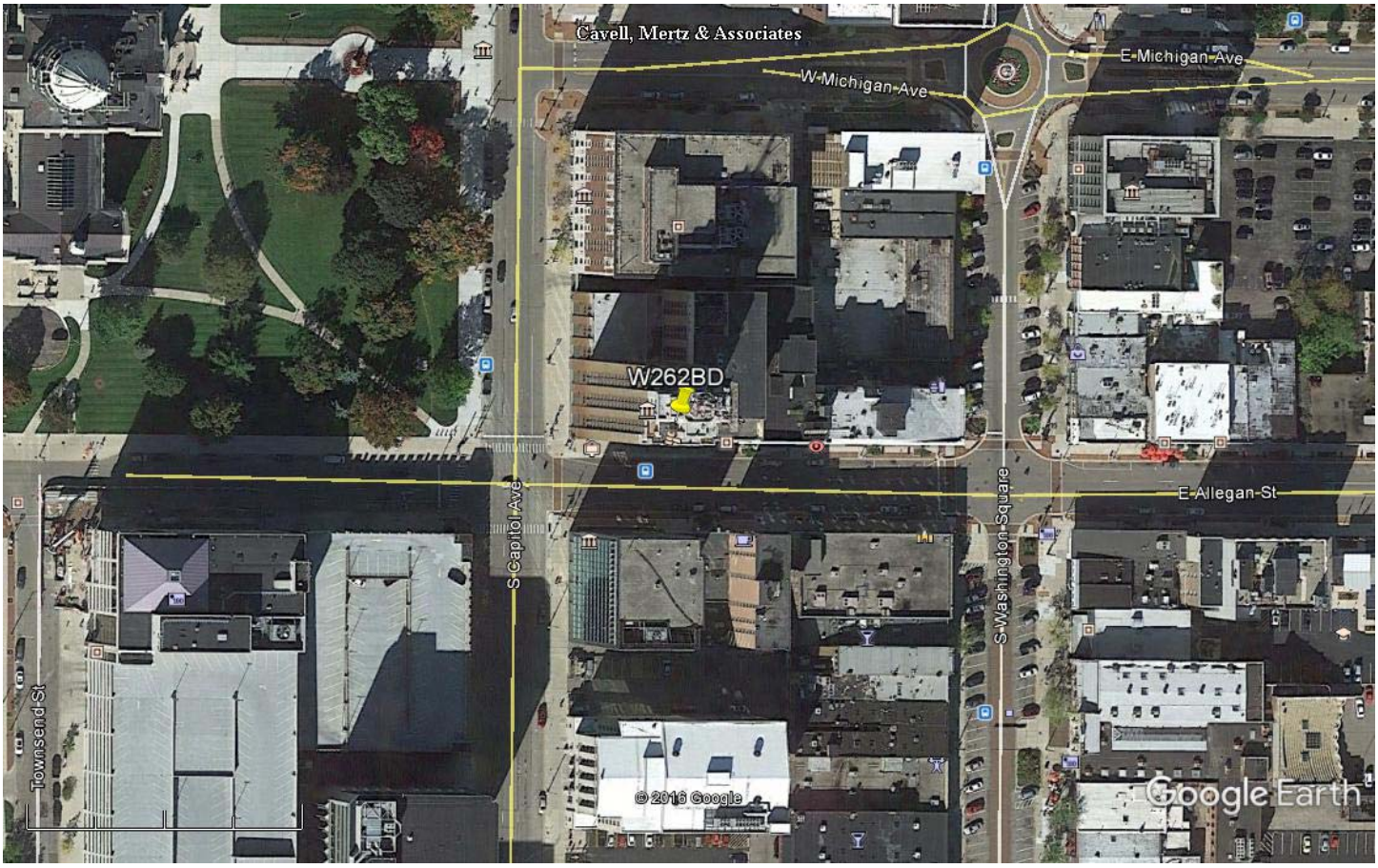
Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1
74.1204(d) Showing
W262BD
Dimondale, MI

ERP (kw): 0.099
Height of Antenna above Ground (m): 97
Translator's IX Contour: 135.6
Antenna Type: SWR FMEC/1

Depression Angle from Horizon	Antenna Relative Field	ERP (kw) from the Antenna RF	Dist. To IX Contour (m)	Height IX Contour Above Ground (m)
0	1.000	0.0990	11.5829	97.000
5	0.997	0.0984	11.5482	95.994
10	0.986	0.0962	11.4207	95.017
15	0.969	0.0930	11.2238	94.095
20	0.946	0.0886	10.9574	93.252
25	0.916	0.0831	10.6099	92.516
30	0.879	0.0765	10.1814	91.909
35	0.837	0.0694	9.6949	91.439
40	0.789	0.0616	9.1389	91.126
45	0.736	0.0536	8.5250	90.972
50	0.679	0.0456	7.8648	90.975
55	0.616	0.0376	7.1351	91.155
60	0.550	0.0299	6.3706	91.483
65	0.480	0.0228	5.5598	91.961
70	0.408	0.0165	4.7258	92.559
75	0.333	0.0110	3.8571	93.274
80	0.256	0.0065	2.9652	94.080
85	0.178	0.0031	2.0618	94.946
90	0.100	0.0010	1.1583	95.842

Exhibit 13-A2



Google Earth

feet 600
meters 100

Yellow Pin Marker
NAD 27
42-43-58.0 N 84-33-13.0 W
Note the antenna location is a rooftop. There are no buildings in the area close enough to be in the interfering contour distance and the interfering distance is not great enough to affect any of the floors beneath the antenna that are potentially occupied. The floor of the building directly underneath the antenna are mechanical rooms.