

Exhibit 18.1 - Tabulation of Allocation Study

Munn-Reese, Inc.
Coldwater, MI 49036

Exhibit 18.1 - Tabulation of Allocation Study
Regents Of The University Of Michigan
CH# 202A - 88.3 MHz, Pwr= 2.9 kW DA, HAAT= 55.9 M, COR= 320 M
Average Protected F(50-50)= 18.16 km
Standard Directional

REFERENCE
42 16 37.0 N.
83 44 07.0 W.

DISPLAY DATES
DATA 07-23-13
SEARCH 07-29-13

CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
202A Ann Arbor	WCBN-FM	CP DCX MI	0.0 0.0	0.00 BPED20121010AAF	42 16 37.0 83 44 07.0	3.000 51	33.0 315	9.6 Regents Of The University	-43.2*	-45.0*
202A Ann Arbor	WCBN-FM	LIC_VN MI	0.0 0.0	0.00 BLED19870202KB	42 16 37.0 83 44 07.0	0.200 54	24.5 318	7.3 Regents Of The University	-34.7*	-42.7*
204C1 Windsor	CIMX	OPE_HN ON	100.7 281.2	62.52	42 10 15.0 82 59 29.0	100.000 176	7.9 360	75.8	41.6	-19.2*<
201A Plymouth	WSDP	CP_CX MI	67.7 247.8	21.27 BPED20090302ADO	42 20 58.0 83 29 45.0	0.300 16	10.6 251	7.4 Plymouth-canton Community	1.0	0.4
201A Plymouth	WSDP	LIC_CX MI	68.1 248.3	21.05 BLED20080508AAC	42 20 50.0 83 29 51.0	0.200 22	9.6 251	6.7 Plymouth-canton Community	1.8	0.9
202A Toledo	WXUT	LIC_HN OH	171.8 351.9	69.60 BLED19901120KF	41 39 26.0 83 36 57.0	0.100 58	24.4 248	7.3 University Of Toledo	27.5	1.1
202A Toledo	WXTS-FM	LIC_CN OH	167.5 347.6	69.27 BLED19811130AM	41 40 07.0 83 33 15.0	0.105 38	19.9 224	6.0 Board Of Education Toledo	31.7	2.4
202A Southfield	WSHJ	LIC_CX MI	60.8 241.1	44.24 BLED20041104APT	42 28 12.0 83 15 51.0	0.105 21	19.2 237	5.8 Board Of Education Of Sout	15.4	6.4
201A Monroe	WSMF	CP_DEX MI	131.9 312.3	53.01 BPED20090302AAN	41 57 26.0 83 15 30.0	0.800 137	26.1 311	17.7 Northland Community Broadc	7.9	7.5
201A Monroe	WSMF	LIC_CX MI	143.2 323.5	49.62 BLED20051216ACG	41 55 08.0 83 22 34.0	1.200 41	14.8 218	10.6 Northland Community Broadc	15.7	11.0
06 Stevenson	VACANT«	GR_HN ON	102.7 283.5	106.05 BPFS20081204AET	42 03 41.0 82 29 05.0	0.600 300	24.1 482	50.9	75.0R	31.6M

Terrain database is NED 03 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= - Zone 1, Co to 3rd adjacent.
All separation margins (if shown) include rounding
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 protected contour.
« = Station meets FCC minimum distance spacing for its class.
< = Contour Overlap
Reference station has protected zone issue:

Blue highlighted text denotes facilities associated with this WCBN-FM - Ann Arbor, MI station to be modified by this proposal. These facilities need not be protected.

Green highlighted text denotes International Protection toward Canadian station CIMX-FM - Windsor, ON, CA. Full protection will be afforded CIMX-FM as the interference contour overlap area will not fall over Canadian soil as noted in Exhibit 18.6.

Yellow highlighted text denotes Contour Protection Studies as included in Exhibit(s) 18.2 to 18.5.

Exhibit 18.2 - Protection to WSDP(CP) - Plymouth, MI

Exhibit 18.2 - Protection to WSDP(CP) - Plymouth, MI
Regents Of The University Of Michigan

FMCommander Single Allocation Study - 07-30-2013 - NED 03 SEC
WCBN-FM.C's Overlaps (In= 0.98 km, Out= 0.38 km)

WCBN-FM.C CH 202 A DA
Lat= 42 16 37.0, Lng= 83 44 07.0
2.9 kW 55.9 M HAAT, 320 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WSDP-C CH 201 A BPED20090302ADO
Lat= 42 20 58.0, Lng= 83 29 45.0
0.3 kW 16 M HAAT, 251 M COR
Prot.= 60 dBu, Intef.= 54 dBu

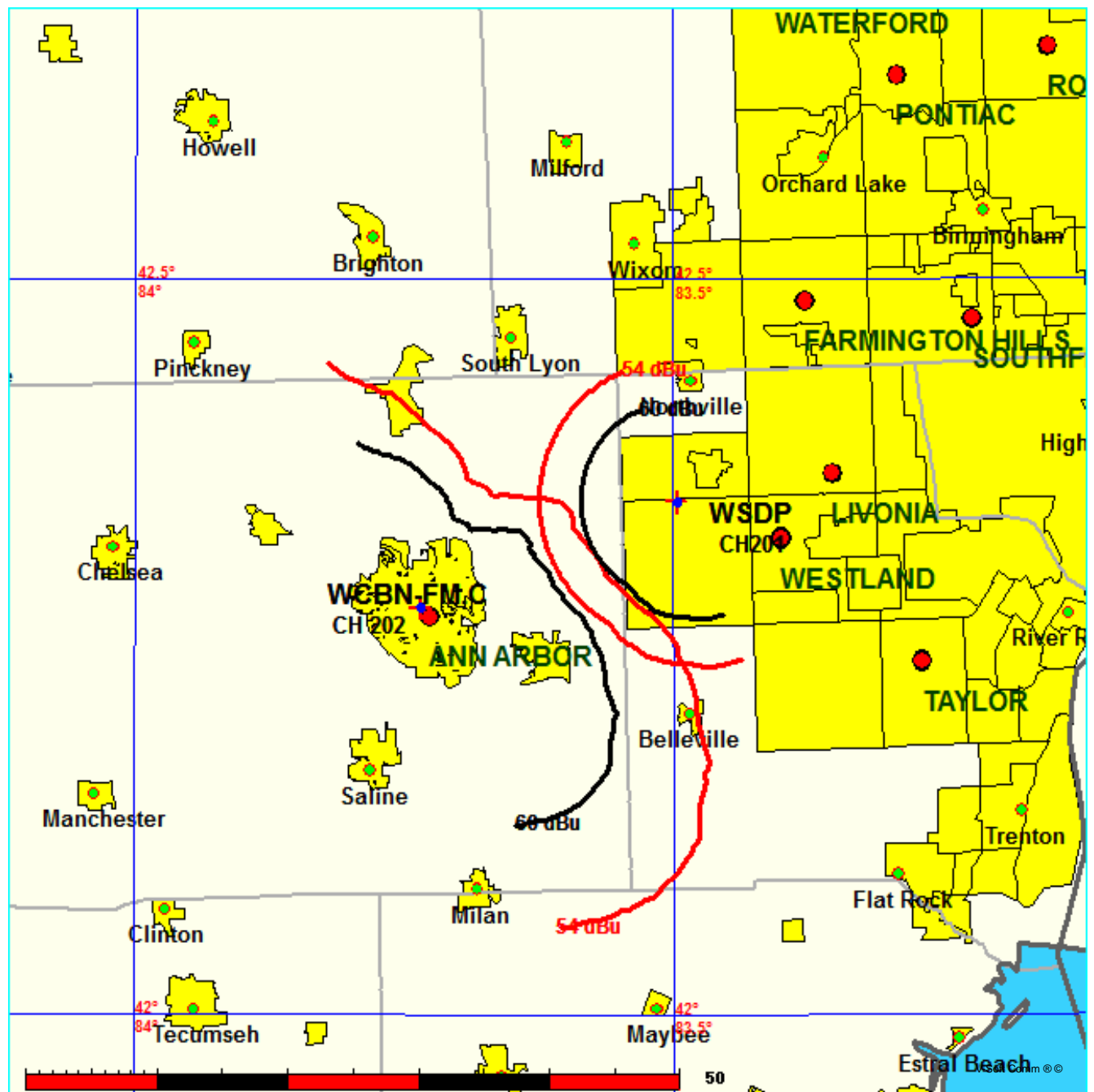


Exhibit 18.2 - Protection to WSDP(CP) - Plymouth, MI

07-29-2013

Terrain Data: NED 03 SEC

FMOVer Analysis

WCBN-FM.C

WSDP BPED20090302ADO

Channel = 202A

Max ERP = 2.9 kW

RCAMSL = 320 M

N. Lat. 42 16 37.0

W. Lng. 83 44 07.0

Protected

60 dBu

Channel = 201A

Max ERP = 0.3 kW

RCAMSL = 251 M

N. Lat. 42 20 58.0

W. Lng. 83 29 45.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
008.0	000.4580	0036.8	009.2	273.3	000.3000	-0023.9	018.4	44.89	
009.0	000.4359	0037.2	009.1	273.0	000.3000	-0023.7	018.3	45.02	
010.0	000.4144	0037.2	009.0	272.6	000.3000	-0023.2	018.1	45.14	
011.0	000.3974	0036.9	008.9	272.1	000.3000	-0022.6	018.0	45.25	
012.0	000.3809	0036.6	008.7	271.6	000.3000	-0021.9	017.9	45.35	
013.0	000.3646	0036.2	008.6	271.0	000.3000	-0021.0	017.8	45.45	
014.0	000.3488	0035.9	008.4	270.5	000.3000	-0020.1	017.6	45.55	
015.0	000.3333	0035.7	008.3	270.0	000.3000	-0019.4	017.5	45.64	
016.0	000.3181	0035.3	008.1	269.3	000.3000	-0018.2	017.4	45.71	
017.0	000.3033	0034.3	007.9	268.5	000.3000	-0016.0	017.4	45.77	
018.0	000.2888	0033.3	007.7	267.7	000.3000	-0014.5	017.3	45.82	
019.0	000.2747	0032.3	007.5	266.8	000.3000	-0014.1	017.3	45.85	
020.0	000.2610	0031.5	007.3	266.2	000.3000	-0014.2	017.2	45.90	
021.0	000.2620	0030.8	007.3	265.8	000.3000	-0014.1	017.1	45.97	
022.0	000.2631	0029.9	007.2	265.4	000.3000	-0013.5	017.1	46.04	
023.0	000.2641	0028.8	007.2	265.2	000.3000	-0013.3	016.9	46.13	
024.0	000.2652	0028.1	007.2	265.0	000.3000	-0012.9	016.8	46.23	
025.0	000.2662	0027.8	007.2	264.8	000.3000	-0012.6	016.7	46.32	
026.0	000.2673	0028.1	007.2	264.6	000.3000	-0012.3	016.6	46.42	
027.0	000.2684	0028.6	007.2	264.4	000.3000	-0011.9	016.5	46.51	
028.0	000.2694	0028.1	007.2	264.2	000.3000	-0011.6	016.4	46.60	
029.0	000.2705	0027.9	007.2	264.0	000.3000	-0011.5	016.3	46.70	
030.0	000.2715	0028.3	007.2	263.7	000.3000	-0011.0	016.2	46.79	
031.0	000.2654	0028.4	007.2	263.3	000.3000	-0010.2	016.1	46.85	
032.0	000.2593	0027.7	007.2	262.9	000.3000	-0009.5	016.0	46.91	
033.0	000.2532	0027.6	007.1	262.5	000.3000	-0009.0	016.0	46.97	
034.0	000.2473	0028.5	007.1	262.1	000.3000	-0009.0	015.9	47.02	
035.0	000.2414	0031.5	007.2	262.1	000.3000	-0009.0	015.7	47.16	
036.0	000.2356	0033.6	007.3	262.2	000.3000	-0009.0	015.5	47.34	
037.0	000.2298	0035.3	007.5	262.2	000.3000	-0009.0	015.3	47.50	
038.0	000.2241	0036.4	007.5	262.1	000.3000	-0009.0	015.2	47.62	
039.0	000.2185	0037.7	007.6	261.9	000.3000	-0009.0	015.0	47.75	
040.0	000.2130	0039.3	007.7	261.8	000.3000	-0009.1	014.9	47.93	
041.0	000.2130	0040.3	007.8	261.7	000.3000	-0009.1	014.7	48.13	
042.0	000.2130	0041.3	008.0	261.6	000.3000	-0009.0	014.5	48.32	
043.0	000.2130	0041.9	008.0	261.3	000.3000	-0008.9	014.4	48.49	

Exhibit 18.2 - Protection to WSDP(CP) - Plymouth, MI

FMOver Analysis

Page # 2

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
044.0	000.2130	0042.3	008.1	260.9	000.3000	-0008.7	014.3	48.63
045.0	000.2130	0043.8	008.2	260.9	000.3000	-0008.6	014.1	48.90
046.0	000.2130	0046.2	008.5	261.0	000.3000	-0008.7	013.8	49.28
047.0	000.2130	0047.7	008.6	260.9	000.3000	-0008.6	013.5	49.56
048.0	000.2130	0048.9	008.8	260.6	000.3000	-0008.5	013.4	49.81
049.0	000.2130	0050.4	008.9	260.4	000.3000	-0008.5	013.1	50.11
050.0	000.2130	0052.3	009.1	260.2	000.3000	-0008.7	012.9	50.44
051.0	000.2109	0054.0	009.3	259.9	000.3000	-0008.8	012.7	50.73
052.0	000.2089	0055.3	009.3	259.5	000.3000	-0008.7	012.5	50.95
053.0	000.2069	0057.9	009.5	259.2	000.3000	-0008.6	012.3	51.32
054.0	000.2049	0059.5	009.6	258.7	000.3000	-0008.3	012.1	51.57
055.0	000.2029	0060.4	009.7	258.1	000.3000	-0008.3	012.0	51.73
056.0	000.2009	0061.6	009.7	257.4	000.3000	-0007.9	011.9	51.91
057.0	000.1989	0062.4	009.8	256.7	000.3000	-0006.2	011.8	52.05
058.0	000.1969	0062.5	009.8	255.9	000.3000	-0005.0	011.8	52.11
059.0	000.1950	0062.7	009.8	255.1	000.3000	-0004.9	011.7	52.17
060.0	000.1930	0062.9	009.7	254.3	000.3000	-0004.0	011.7	52.21
061.0	000.1920	0061.6	009.6	253.3	000.3000	-0003.0	011.8	52.12
062.0	000.1909	0060.1	009.5	252.4	000.3000	-0002.1	011.9	51.99
063.0	000.1899	0059.7	009.5	251.6	000.3000	-0002.2	011.9	51.96
064.0	000.1889	0060.1	009.5	250.8	000.3000	-0002.5	011.8	52.02
065.0	000.1878	0062.3	009.6	250.1	000.3000	-0001.9	011.7	52.27
066.0	000.1868	0061.8	009.6	249.2	000.3000	-0001.8	011.7	52.21
067.0	000.1858	0062.7	009.6	248.4	000.3000	-0001.5	011.7	52.30
068.0	000.1847	0063.7	009.7	247.6	000.3000	-0001.0	011.6	52.38
069.0	000.1837	0065.1	009.8	246.8	000.3000	0000.1	011.5	52.51
070.0	000.1827	0066.5	009.9	245.9	000.3000	0000.2	011.4	52.63
071.0	000.1837	0067.4	009.9	245.0	000.3000	0000.6	011.4	52.72
072.0	000.1847	0067.6	010.0	244.1	000.3000	0001.2	011.4	52.73
073.0	000.1858	0068.8	010.0	243.2	000.3000	0001.6	011.3	52.83
074.0	000.1868	0069.5	010.1	242.2	000.3000	0002.1	011.3	52.87
075.0	000.1878	0070.4	010.2	241.3	000.3000	0003.0	011.3	52.93
076.0	000.1889	0070.7	010.2	240.3	000.3000	0004.0	011.3	52.91
077.0	000.1899	0070.8	010.2	239.4	000.3000	0004.6	011.3	52.86
078.0	000.1909	0071.4	010.3	238.5	000.3000	0006.7	011.3	52.85
079.0	000.1920	0071.8	010.3	237.6	000.3000	0010.1	011.3	52.80
080.0	000.1930	0071.7	010.3	236.7	000.3000	0011.1	011.4	52.70
081.0	000.1977	0072.5	010.5	235.7	000.3000	0009.8	011.4	52.75
082.0	000.2024	0073.3	010.6	234.6	000.3000	0009.9	011.4	52.77
083.0	000.2072	0074.1	010.7	233.5	000.3000	0010.4	011.3	52.80
084.0	000.2120	0075.3	010.8	232.3	000.3000	0011.9	011.3	52.84
085.0	000.2169	0076.1	010.9	231.2	000.3000	0012.3	011.3	52.81
086.0	000.2219	0076.7	011.0	230.1	000.3000	0012.5	011.4	52.77
087.0	000.2269	0077.2	011.1	229.0	000.3000	0013.6	011.4	52.70
088.0	000.2319	0078.9	011.3	227.7	000.3000	0015.1	011.4	52.71
089.0	000.2370	0080.5	011.5	226.4	000.3000	0018.1	011.4	52.70
090.0	000.2422	0082.1	011.6	225.2	000.3000	0019.7	011.4	52.66
091.0	000.2548	0083.6	011.9	223.6	000.3000	0019.6	011.4	52.69
092.0	000.2677	0085.1	012.1	222.0	000.3000	0020.9	011.4	52.69
093.0	000.2809	0086.6	012.3	220.4	000.3000	0023.0	011.4	52.67
094.0	000.2944	0086.9	012.5	219.1	000.3000	0024.2	011.5	52.53

Exhibit 18.2 - Protection to WSDP(CP) - Plymouth, MI

FMOver Analysis

Page # 3

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
095.0	000.3082	0087.5	012.7	217.7	000.3000	0025.5	011.6	52.41
096.0	000.3224	0088.4	012.9	216.3	000.3000	0026.6	011.7	52.27
097.0	000.3368	0088.9	013.1	215.1	000.3000	0026.8	011.8	52.09
098.0	000.3516	0089.6	013.2	213.7	000.3000	0027.6	011.9	51.91
099.0	000.3667	0089.2	013.4	212.8	000.3000	0028.2	012.1	51.65
100.0	000.3821	0088.3	013.4	212.1	000.3000	0028.6	012.3	51.37
101.0	000.4022	0088.0	013.6	211.1	000.3000	0028.8	012.4	51.12
102.0	000.4227	0088.4	013.8	209.8	000.3000	0029.6	012.6	50.88
103.0	000.4438	0088.9	014.0	208.7	000.3000	0030.4	012.8	50.73
104.0	000.4654	0089.9	014.2	207.3	000.3000	0031.3	012.9	50.70
105.0	000.4875	0089.5	014.4	206.5	000.3000	0031.7	013.2	50.49
106.0	000.5101	0088.9	014.5	205.8	000.3000	0032.2	013.4	50.31
107.0	000.5332	0088.8	014.6	205.0	000.3000	0033.0	013.6	50.20
108.0	000.5569	0088.8	014.8	204.2	000.3000	0033.9	013.8	50.12
109.0	000.5810	0088.6	014.9	203.5	000.3000	0034.1	014.1	49.86
110.0	000.6057	0088.1	015.1	202.9	000.3000	0034.0	014.3	49.51
111.0	000.6376	0087.4	015.2	202.4	000.3000	0034.1	014.6	49.23
112.0	000.6704	0086.8	015.3	201.8	000.3000	0034.3	014.9	48.98
113.0	000.7040	0086.9	015.6	201.0	000.3000	0034.6	015.1	48.84
114.0	000.7384	0086.9	015.8	200.2	000.3000	0035.0	015.4	48.69
115.0	000.7736	0087.4	016.0	199.4	000.3000	0035.3	015.7	48.50
116.0	000.8097	0088.0	016.3	198.5	000.3000	0035.6	016.0	48.29
117.0	000.8466	0089.5	016.7	197.3	000.3000	0035.8	016.4	48.07
118.0	000.8843	0090.7	017.0	196.4	000.3000	0036.4	016.7	47.91
119.0	000.9228	0089.2	017.1	196.5	000.3000	0036.3	017.0	47.64
120.0	000.9622	0087.5	017.1	196.7	000.3000	0036.2	017.3	47.36
121.0	001.0126	0087.6	017.3	196.1	000.3000	0036.6	017.7	47.15
122.0	001.0643	0086.8	017.5	195.9	000.3000	0036.7	018.0	46.90
123.0	001.1173	0085.5	017.5	195.9	000.3000	0036.7	018.3	46.63
124.0	001.1716	0084.7	017.7	195.8	000.3000	0036.7	018.7	46.37
125.0	001.2271	0084.0	017.8	195.8	000.3000	0036.8	019.0	46.10
126.0	001.2840	0083.9	018.0	195.5	000.3000	0037.0	019.4	45.85
127.0	001.3421	0084.1	018.3	195.2	000.3000	0037.2	019.7	45.58

Exhibit 18.2 - Protection to WSDP(CP) - Plymouth, MI

07-29-2013 Terrain Data: NED 03 SEC FMOver Analysis

WSDP BPED20090302ADO

WCBN-FM.C

Channel = 201A
Max ERP = 0.3 kW
RCAMSL = 251 M
N. Lat. 42 20 58.0
W. Lng. 83 29 45.0
Protected
60 dBu

Channel = 202A
Max ERP = 2.9 kW
RCAMSL = 320 M
N. Lat. 42 16 37.0
W. Lng. 83 44 07.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
188.0	000.3000	0039.9	008.6	091.3	000.2581	0083.9	018.5	53.10	
189.0	000.3000	0039.9	008.6	091.2	000.2573	0083.8	018.4	53.20	
190.0	000.3000	0039.4	008.5	091.0	000.2542	0083.5	018.2	53.23	
191.0	000.3000	0039.3	008.5	090.8	000.2525	0083.3	018.1	53.30	
192.0	000.3000	0038.7	008.4	090.5	000.2488	0082.9	018.0	53.30	
193.0	000.3000	0038.2	008.4	090.2	000.2450	0082.4	017.8	53.29	
194.0	000.3000	0038.0	008.3	090.1	000.2430	0082.2	017.7	53.34	
195.0	000.3000	0037.3	008.3	089.7	000.2404	0081.5	017.6	53.32	
196.0	000.3000	0036.7	008.2	089.3	000.2386	0080.9	017.4	53.33	
197.0	000.3000	0036.0	008.1	088.9	000.2366	0080.4	017.3	53.33	
198.0	000.3000	0035.7	008.1	088.7	000.2353	0080.0	017.2	53.36	
199.0	000.3000	0035.4	008.0	088.4	000.2338	0079.5	017.1	53.38	
200.0	000.3000	0035.1	008.0	088.1	000.2324	0079.0	017.0	53.40	
201.0	000.3000	0034.6	007.9	087.7	000.2306	0078.3	016.9	53.39	
202.0	000.3000	0034.3	007.9	087.4	000.2290	0077.8	016.8	53.39	
203.0	000.3000	0034.0	007.9	087.1	000.2276	0077.4	016.6	53.41	
204.0	000.3000	0034.0	007.9	086.9	000.2265	0077.1	016.5	53.47	
205.0	000.3000	0032.9	007.7	086.3	000.2235	0076.8	016.5	53.43	
206.0	000.3000	0032.0	007.6	085.8	000.2209	0076.6	016.4	53.42	
207.0	000.3000	0031.3	007.6	085.3	000.2185	0076.3	016.3	53.40	
208.0	000.3000	0030.9	007.5	084.9	000.2165	0076.0	016.2	53.40	
209.0	000.3000	0030.2	007.4	084.4	000.2141	0075.6	016.2	53.37	
210.0	000.3000	0029.4	007.4	084.1	000.2126	0075.4	016.1	53.40	
211.0	000.3000	0028.8	007.4	083.8	000.2113	0075.2	016.0	53.43	
212.0	000.3000	0028.6	007.4	083.6	000.2099	0074.8	015.9	53.45	
213.0	000.3000	0028.1	007.4	083.3	000.2085	0074.4	015.8	53.46	
214.0	000.3000	0027.5	007.4	083.0	000.2070	0074.1	015.7	53.48	
215.0	000.3000	0026.9	007.4	082.6	000.2055	0073.9	015.6	53.52	
216.0	000.3000	0026.9	007.4	082.3	000.2039	0073.7	015.5	53.54	
217.0	000.3000	0026.1	007.4	082.0	000.2024	0073.2	015.4	53.54	
218.0	000.3000	0025.2	007.4	081.6	000.2007	0073.0	015.3	53.56	
219.0	000.3000	0024.3	007.4	081.3	000.1990	0072.7	015.2	53.56	
220.0	000.3000	0023.4	007.4	080.9	000.1973	0072.4	015.1	53.57	

Exhibit 18.2 - Protection to WSDP(CP) - Plymouth, MI

FMOver Analysis

Page # 5

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
221.0	000.3000	0022.2	007.4	080.5	000.1956	0072.0	015.0	53.55
222.0	000.3000	0020.8	007.4	080.2	000.1938	0071.7	015.0	53.36
223.0	000.3000	0019.6	007.4	079.8	000.1928	0071.7	014.9	53.42
224.0	000.3000	0019.7	007.4	079.4	000.1924	0071.7	014.8	53.49
225.0	000.3000	0019.8	007.4	078.9	000.1919	0071.8	014.7	53.58
226.0	000.3000	0019.1	007.4	078.5	000.1915	0071.7	014.7	53.64
227.0	000.3000	0017.3	007.4	078.1	000.1910	0071.5	014.6	53.69
228.0	000.3000	0014.6	007.4	077.7	000.1906	0071.1	014.5	53.71
229.0	000.3000	0013.7	007.4	077.2	000.1901	0070.9	014.5	53.75
230.0	000.3000	0012.7	007.4	076.8	000.1896	0070.8	014.4	53.80
231.0	000.3000	0012.3	007.4	076.3	000.1892	0070.8	014.3	53.86
232.0	000.3000	0012.2	007.4	075.8	000.1887	0070.8	014.3	53.91
233.0	000.3000	0011.1	007.4	075.3	000.1882	0070.6	014.2	53.94
234.0	000.3000	0010.1	007.4	074.9	000.1877	0070.3	014.2	53.96
235.0	000.3000	0009.9	007.4	074.4	000.1872	0069.8	014.2	53.94
236.0	000.3000	0010.2	007.4	073.9	000.1867	0069.4	014.1	53.94
237.0	000.3000	0011.2	007.4	073.4	000.1861	0069.1	014.1	53.94
238.0	000.3000	0008.4	007.4	072.9	000.1856	0068.6	014.0	53.91
239.0	000.3000	0005.2	007.4	072.3	000.1851	0067.7	014.0	53.83
240.0	000.3000	0004.2	007.4	071.8	000.1846	0067.7	014.0	53.85
241.0	000.3000	0003.3	007.4	071.3	000.1840	0067.6	014.0	53.86
242.0	000.3000	0002.2	007.4	070.8	000.1835	0067.1	013.9	53.81
243.0	000.3000	0001.5	007.4	070.2	000.1830	0066.8	013.9	53.78
244.0	000.3000	0001.2	007.4	069.7	000.1830	0066.3	013.9	53.75
245.0	000.3000	0000.6	007.4	069.2	000.1835	0065.4	013.9	53.67
246.0	000.3000	0000.1	007.4	068.7	000.1841	0064.4	013.9	53.56
247.0	000.3000	-0000.1	007.4	068.1	000.1846	0063.7	013.9	53.50
248.0	000.3000	-0001.4	007.4	067.6	000.1852	0063.4	013.9	53.47
249.0	000.3000	-0001.6	007.4	067.0	000.1857	0062.8	013.9	53.40
250.0	000.3000	-0001.9	007.4	066.5	000.1863	0062.1	013.9	53.32
251.0	000.3000	-0002.6	007.4	066.0	000.1868	0061.8	013.9	53.29
252.0	000.3000	-0002.1	007.4	065.4	000.1874	0062.3	013.9	53.35
253.0	000.3000	-0002.8	007.4	064.9	000.1879	0062.2	013.9	53.33
254.0	000.3000	-0003.8	007.4	064.4	000.1885	0060.9	013.9	53.15
255.0	000.3000	-0004.8	007.4	063.9	000.1890	0059.8	014.0	52.99
256.0	000.3000	-0004.9	007.4	063.3	000.1895	0059.7	014.0	52.96
257.0	000.3000	-0007.0	007.4	062.8	000.1901	0059.7	014.0	52.93
258.0	000.3000	-0008.3	007.4	062.3	000.1906	0059.9	014.1	52.92
259.0	000.3000	-0008.4	007.4	061.8	000.1911	0060.2	014.1	52.94
260.0	000.3000	-0008.8	007.4	061.3	000.1917	0061.1	014.1	53.01
261.0	000.3000	-0008.7	007.4	060.8	000.1922	0061.9	014.2	53.07
262.0	000.3000	-0009.0	007.4	060.3	000.1927	0062.5	014.2	53.10
263.0	000.3000	-0009.6	007.4	059.8	000.1933	0063.0	014.3	53.11
264.0	000.3000	-0011.5	007.4	059.4	000.1943	0062.9	014.3	53.05
265.0	000.3000	-0012.9	007.4	058.9	000.1952	0062.6	014.4	52.97
266.0	000.3000	-0014.2	007.4	058.4	000.1961	0062.5	014.4	52.90
267.0	000.3000	-0014.1	007.4	058.0	000.1970	0062.5	014.5	52.85
268.0	000.3000	-0015.1	007.4	057.5	000.1978	0062.5	014.6	52.80
269.0	000.3000	-0017.5	007.4	057.1	000.1987	0062.4	014.6	52.73
270.0	000.3000	-0019.4	007.4	056.7	000.1995	0062.2	014.7	52.63
271.0	000.3000	-0020.9	007.4	056.3	000.2004	0061.8	014.8	52.52

Exhibit 18.2 - Protection to WSDP(CP) - Plymouth, MI

FMOVer Analysis

Page # 6

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
272.0	000.3000	-0022.5	007.4	055.9	000.2012	0061.3	014.8	52.39
273.0	000.3000	-0023.7	007.4	055.5	000.2020	0060.9	014.9	52.26
274.0	000.3000	-0024.6	007.4	055.1	000.2028	0060.5	015.0	52.14
275.0	000.3000	-0025.2	007.4	054.7	000.2035	0060.0	015.1	52.26
276.0	000.3000	-0025.2	007.4	054.3	000.2043	0059.8	015.2	52.17
277.0	000.3000	-0025.3	007.4	053.9	000.2050	0059.5	015.3	52.07
278.0	000.3000	-0025.5	007.4	053.6	000.2057	0058.9	015.3	51.92
279.0	000.3000	-0026.2	007.4	053.3	000.2064	0058.3	015.4	51.78
280.0	000.3000	-0026.7	007.4	052.9	000.2070	0057.8	015.5	51.63
281.0	000.3000	-0026.5	007.4	052.6	000.2077	0057.0	015.6	51.45
282.0	000.3000	-0026.6	007.4	052.3	000.2083	0056.3	015.7	51.26
283.0	000.3000	-0026.8	007.4	052.0	000.2089	0055.3	015.8	51.03
284.0	000.3000	-0026.8	007.4	051.7	000.2095	0054.5	015.9	50.82
285.0	000.3000	-0026.5	007.4	051.4	000.2101	0054.3	016.0	50.71
286.0	000.3000	-0026.9	007.4	051.1	000.2106	0054.2	016.1	50.61
287.0	000.3000	-0026.5	007.4	050.9	000.2112	0053.9	016.2	50.48
288.0	000.3000	-0026.3	007.4	050.6	000.2117	0053.5	016.3	50.34
289.0	000.3000	-0026.2	007.4	050.4	000.2122	0053.1	016.5	50.18
290.0	000.3000	-0026.3	007.4	050.2	000.2127	0052.7	016.6	50.01
291.0	000.3000	-0025.4	007.4	049.9	000.2130	0052.1	016.7	49.83
292.0	000.3000	-0025.1	007.4	049.7	000.2130	0051.6	016.8	49.64
293.0	000.3000	-0025.3	007.4	049.5	000.2130	0051.1	016.9	49.45
294.0	000.3000	-0024.8	007.4	049.3	000.2130	0050.7	017.0	49.28
295.0	000.3000	-0024.2	007.4	049.1	000.2130	0050.5	017.1	49.14
296.0	000.3000	-0024.0	007.4	049.0	000.2130	0050.4	017.3	49.01
297.0	000.3000	-0023.4	007.4	048.8	000.2130	0050.2	017.4	48.87
298.0	000.3000	-0022.3	007.4	048.7	000.2130	0050.0	017.5	48.72
299.0	000.3000	-0021.5	007.4	048.5	000.2130	0049.7	017.6	48.57
300.0	000.3000	-0021.1	007.4	048.4	000.2130	0049.5	017.7	48.42
301.0	000.3000	-0021.7	007.4	048.2	000.2130	0049.2	017.9	48.27
302.0	000.3000	-0022.5	007.4	048.1	000.2130	0049.0	018.0	48.13
303.0	000.3000	-0023.8	007.4	048.0	000.2130	0048.9	018.1	47.99
304.0	000.3000	-0024.8	007.4	047.9	000.2130	0048.7	018.2	47.86
305.0	000.3000	-0024.7	007.4	047.8	000.2130	0048.6	018.4	47.73
306.0	000.3000	-0024.3	007.4	047.7	000.2130	0048.5	018.5	47.60
307.0	000.3000	-0024.3	007.4	047.6	000.2130	0048.4	018.6	47.48

Exhibit 18.3 - Protection to WSDP(Lic) - Plymouth, MI

Exhibit 18.3 - Protection to WSDP(Lic) - Plymouth, MI
Regents Of The University Of Michigan

FMCommander Single Allocation Study - 07-30-2013 - NED 03 SEC
WCBN-FM.C's Overlaps (In= 1.76 km, Out= 0.85 km)

WCBN-FM.C CH 202 A DA
Lat= 42 16 37.0, Lng= 83 44 07.0
2.9 kW 55.9 M HAAT, 320 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WSDP CH 201 A BMLED20080508AAC
Lat= 42 20 50.0, Lng= 83 29 51.0
0.2 kW 22 M HAAT, 251 M COR
Prot.= 60 dBu, Intef.= 54 dBu

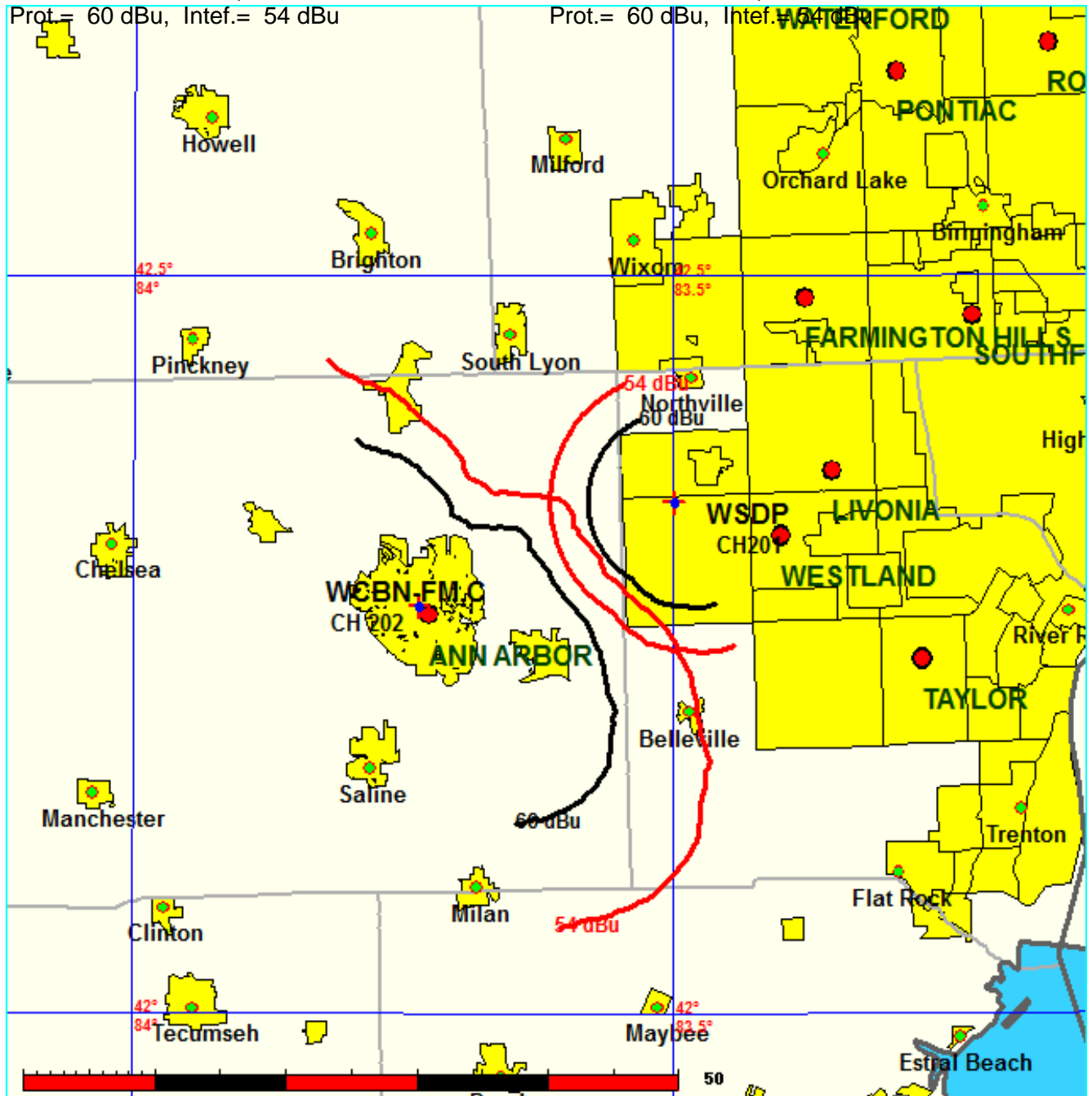


Exhibit 18.3 - Protection to WSDP(Lic) - Plymouth, MI

07-29-2013

Terrain Data: NED 03 SEC

FMOver Analysis

WCBN-FM.C

WSDP BMLED20080508AAC

Channel = 202A
Max ERP = 2.9 kW
RCAMSL = 320 M
N. Lat. 42 16 37.0
W. Lng. 83 44 07.0
Protected
60 dBu

Channel = 201A
Max ERP = 0.2 kW
RCAMSL = 251 M
N. Lat. 42 20 50.0
W. Lng. 83 29 51.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
008.0	000.4580	0036.8	009.2	274.1	000.2000	-0023.5	018.3	43.23	
009.0	000.4359	0037.2	009.1	273.8	000.2000	-0023.3	018.2	43.36	
010.0	000.4144	0037.2	009.0	273.4	000.2000	-0022.7	018.0	43.48	
011.0	000.3974	0036.9	008.9	272.9	000.2000	-0022.3	017.9	43.59	
012.0	000.3809	0036.6	008.7	272.4	000.2000	-0021.5	017.7	43.70	
013.0	000.3646	0036.2	008.6	271.8	000.2000	-0021.0	017.6	43.80	
014.0	000.3488	0035.9	008.4	271.3	000.2000	-0020.4	017.5	43.90	
015.0	000.3333	0035.7	008.3	270.8	000.2000	-0019.7	017.4	43.99	
016.0	000.3181	0035.3	008.1	270.1	000.2000	-0018.4	017.3	44.07	
017.0	000.3033	0034.3	007.9	269.3	000.2000	-0016.0	017.2	44.13	
018.0	000.2888	0033.3	007.7	268.5	000.2000	-0014.8	017.2	44.18	
019.0	000.2747	0032.3	007.5	267.6	000.2000	-0014.4	017.1	44.22	
020.0	000.2610	0031.5	007.3	267.0	000.2000	-0014.2	017.1	44.26	
021.0	000.2620	0030.8	007.3	266.6	000.2000	-0014.0	017.0	44.34	
022.0	000.2631	0029.9	007.2	266.2	000.2000	-0013.4	016.9	44.41	
023.0	000.2641	0028.8	007.2	266.0	000.2000	-0013.1	016.8	44.50	
024.0	000.2652	0028.1	007.2	265.8	000.2000	-0012.8	016.7	44.60	
025.0	000.2662	0027.8	007.2	265.6	000.2000	-0012.5	016.6	44.70	
026.0	000.2673	0028.1	007.2	265.4	000.2000	-0012.3	016.4	44.79	
027.0	000.2684	0028.6	007.2	265.2	000.2000	-0012.0	016.3	44.89	
028.0	000.2694	0028.1	007.2	265.0	000.2000	-0011.7	016.2	44.98	
029.0	000.2705	0027.9	007.2	264.8	000.2000	-0011.4	016.1	45.07	
030.0	000.2715	0028.3	007.2	264.5	000.2000	-0011.2	016.0	45.16	
031.0	000.2654	0028.4	007.2	264.2	000.2000	-0010.4	015.9	45.23	
032.0	000.2593	0027.7	007.2	263.8	000.2000	-0009.6	015.9	45.29	
033.0	000.2532	0027.6	007.1	263.4	000.2000	-0009.2	015.8	45.35	
034.0	000.2473	0028.5	007.1	262.9	000.2000	-0009.0	015.7	45.41	
035.0	000.2414	0031.5	007.2	262.9	000.2000	-0009.0	015.6	45.55	
036.0	000.2356	0033.6	007.3	263.1	000.2000	-0009.0	015.3	45.73	
037.0	000.2298	0035.3	007.5	263.1	000.2000	-0009.0	015.2	45.88	
038.0	000.2241	0036.4	007.5	262.9	000.2000	-0009.0	015.0	46.00	
039.0	000.2185	0037.7	007.6	262.8	000.2000	-0008.9	014.9	46.16	
040.0	000.2130	0039.3	007.7	262.7	000.2000	-0008.9	014.7	46.36	
041.0	000.2130	0040.3	007.8	262.6	000.2000	-0008.9	014.5	46.56	
042.0	000.2130	0041.3	008.0	262.5	000.2000	-0008.8	014.4	46.77	
043.0	000.2130	0041.9	008.0	262.2	000.2000	-0008.8	014.2	46.94	

Exhibit 18.3 - Protection to WSDP(Lic) - Plymouth, MI

FMOver Analysis

Page # 2

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
044.0	000.2130	0042.3	008.1	261.8	000.2000	-0008.7	014.1	47.08
045.0	000.2130	0043.8	008.2	261.8	000.2000	-0008.7	013.9	47.36
046.0	000.2130	0046.2	008.5	262.0	000.2000	-0008.7	013.6	47.74
047.0	000.2130	0047.7	008.6	261.8	000.2000	-0008.7	013.4	48.03
048.0	000.2130	0048.9	008.8	261.6	000.2000	-0008.7	013.2	48.29
049.0	000.2130	0050.4	008.9	261.4	000.2000	-0008.7	013.0	48.59
050.0	000.2130	0052.3	009.1	261.2	000.2000	-0008.8	012.7	48.92
051.0	000.2109	0054.0	009.3	260.9	000.2000	-0009.1	012.5	49.22
052.0	000.2089	0055.3	009.3	260.5	000.2000	-0009.1	012.4	49.45
053.0	000.2069	0057.9	009.5	260.2	000.2000	-0008.9	012.1	49.83
054.0	000.2049	0059.5	009.6	259.7	000.2000	-0008.3	012.0	50.08
055.0	000.2029	0060.4	009.7	259.1	000.2000	-0008.4	011.8	50.25
056.0	000.2009	0061.6	009.7	258.4	000.2000	-0008.1	011.7	50.43
057.0	000.1989	0062.4	009.8	257.7	000.2000	-0007.1	011.6	50.58
058.0	000.1969	0062.5	009.8	256.9	000.2000	-0005.5	011.6	50.64
059.0	000.1950	0062.7	009.8	256.1	000.2000	-0005.4	011.5	50.71
060.0	000.1930	0062.9	009.7	255.3	000.2000	-0004.4	011.5	50.76
061.0	000.1920	0061.6	009.6	254.3	000.2000	-0002.9	011.6	50.68
062.0	000.1909	0060.1	009.5	253.4	000.2000	-0002.4	011.7	50.54
063.0	000.1899	0059.7	009.5	252.5	000.2000	-0002.8	011.7	50.52
064.0	000.1889	0060.1	009.5	251.7	000.2000	-0002.7	011.6	50.58
065.0	000.1878	0062.3	009.6	251.0	000.2000	-0002.2	011.5	50.84
066.0	000.1868	0061.8	009.6	250.2	000.2000	-0001.9	011.5	50.79
067.0	000.1858	0062.7	009.6	249.3	000.2000	-0001.6	011.4	50.88
068.0	000.1847	0063.7	009.7	248.5	000.2000	-0001.6	011.4	50.97
069.0	000.1837	0065.1	009.8	247.6	000.2000	-0000.3	011.3	51.10
070.0	000.1827	0066.5	009.9	246.7	000.2000	0000.1	011.2	51.23
071.0	000.1837	0067.4	009.9	245.8	000.2000	0000.2	011.2	51.32
072.0	000.1847	0067.6	010.0	244.9	000.2000	0001.1	011.2	51.34
073.0	000.1858	0068.8	010.0	244.0	000.2000	0002.0	011.1	51.44
074.0	000.1868	0069.5	010.1	243.0	000.2000	0002.3	011.1	51.49
075.0	000.1878	0070.4	010.2	242.0	000.2000	0003.1	011.0	51.56
076.0	000.1889	0070.7	010.2	241.1	000.2000	0003.8	011.0	51.54
077.0	000.1899	0070.8	010.2	240.2	000.2000	0004.8	011.1	51.49
078.0	000.1909	0071.4	010.3	239.2	000.2000	0006.9	011.1	51.48
079.0	000.1920	0071.8	010.3	238.3	000.2000	0010.0	011.1	51.44
080.0	000.1930	0071.7	010.3	237.4	000.2000	0011.1	011.2	51.34
081.0	000.1977	0072.5	010.5	236.3	000.2000	0009.8	011.1	51.39
082.0	000.2024	0073.3	010.6	235.2	000.2000	0009.8	011.1	51.42
083.0	000.2072	0074.1	010.7	234.1	000.2000	0010.2	011.1	51.45
084.0	000.2120	0075.3	010.8	232.9	000.2000	0011.7	011.1	51.49
085.0	000.2169	0076.1	010.9	231.7	000.2000	0012.4	011.1	51.48
086.0	000.2219	0076.7	011.0	230.6	000.2000	0012.3	011.1	51.43
087.0	000.2269	0077.2	011.1	229.5	000.2000	0013.6	011.1	51.37
088.0	000.2319	0078.9	011.3	228.2	000.2000	0014.9	011.1	51.38
089.0	000.2370	0080.5	011.5	226.9	000.2000	0018.0	011.1	51.37
090.0	000.2422	0082.1	011.6	225.6	000.2000	0019.4	011.2	51.34
091.0	000.2548	0083.6	011.9	223.9	000.2000	0019.4	011.1	51.37
092.0	000.2677	0085.1	012.1	222.3	000.2000	0020.5	011.1	51.37
093.0	000.2809	0086.6	012.3	220.6	000.2000	0022.8	011.1	51.35
094.0	000.2944	0086.9	012.5	219.4	000.2000	0024.1	011.2	51.22

Exhibit 18.3 - Protection to WSDP(Lic) - Plymouth, MI

FMOver Analysis

Page # 3

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
095.0	000.3082	0087.5	012.7	217.9	000.2000	0025.5	011.3	51.09
096.0	000.3224	0088.4	012.9	216.5	000.2000	0026.9	011.4	50.95
097.0	000.3368	0088.9	013.1	215.2	000.2000	0027.1	011.5	50.77
098.0	000.3516	0089.6	013.2	213.9	000.2000	0027.9	011.6	50.58
099.0	000.3667	0089.2	013.4	212.9	000.2000	0028.6	011.8	50.33
100.0	000.3821	0088.3	013.4	212.2	000.2000	0028.8	012.0	50.03
101.0	000.4022	0088.0	013.6	211.1	000.2000	0029.0	012.2	49.78
102.0	000.4227	0088.4	013.8	209.9	000.2000	0029.7	012.3	49.54
103.0	000.4438	0088.9	014.0	208.6	000.2000	0030.7	012.5	49.44
104.0	000.4654	0089.9	014.2	207.3	000.2000	0031.5	012.7	49.40
105.0	000.4875	0089.5	014.4	206.4	000.2000	0031.9	012.9	49.18
106.0	000.5101	0088.9	014.5	205.8	000.2000	0032.4	013.1	48.99
107.0	000.5332	0088.8	014.6	204.9	000.2000	0033.2	013.3	48.87
108.0	000.5569	0088.8	014.8	204.1	000.2000	0034.1	013.6	48.76
109.0	000.5810	0088.6	014.9	203.4	000.2000	0034.2	013.8	48.48
110.0	000.6057	0088.1	015.1	202.8	000.2000	0034.1	014.1	48.13
111.0	000.6376	0087.4	015.2	202.2	000.2000	0034.2	014.3	47.84
112.0	000.6704	0086.8	015.3	201.6	000.2000	0034.3	014.6	47.54
113.0	000.7040	0086.9	015.6	200.8	000.2000	0034.6	014.9	47.28
114.0	000.7384	0086.9	015.8	200.1	000.2000	0035.0	015.2	47.16
115.0	000.7736	0087.4	016.0	199.2	000.2000	0035.3	015.5	46.99
116.0	000.8097	0088.0	016.3	198.3	000.2000	0035.6	015.8	46.79
117.0	000.8466	0089.5	016.7	197.1	000.2000	0036.0	016.1	46.59
118.0	000.8843	0090.7	017.0	196.2	000.2000	0036.5	016.5	46.41
119.0	000.9228	0089.2	017.1	196.2	000.2000	0036.5	016.8	46.15
120.0	000.9622	0087.5	017.1	196.5	000.2000	0036.4	017.1	45.88
121.0	001.0126	0087.6	017.3	195.9	000.2000	0036.7	017.4	45.64
122.0	001.0643	0086.8	017.5	195.7	000.2000	0036.8	017.7	45.39
123.0	001.1173	0085.5	017.5	195.7	000.2000	0036.8	018.1	45.12
124.0	001.1716	0084.7	017.7	195.6	000.2000	0036.8	018.4	44.85
125.0	001.2271	0084.0	017.8	195.6	000.2000	0036.8	018.7	44.57
126.0	001.2840	0083.9	018.0	195.3	000.2000	0036.9	019.1	44.29
127.0	001.3421	0084.1	018.3	195.0	000.2000	0037.1	019.5	44.04

Exhibit 18.3 - Protection to WSDP(Lic) - Plymouth, MI

07-29-2013

Terrain Data: NED 03 SEC

FMOVer Analysis

WSDP BMLED20080508AAC

WCBN-FM.C

Channel = 201A

Max ERP = 0.2 kW

RCAMSL = 251 M

N. Lat. 42 20 50.0

W. Lng. 83 29 51.0

Protected

60 dBu

Channel = 202A

Max ERP = 2.9 kW

RCAMSL = 320 M

N. Lat. 42 16 37.0

W. Lng. 83 44 07.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
188.0	000.2000	0039.8	007.7	089.3	000.2384	0080.9	018.5	52.44	
189.0	000.2000	0039.5	007.6	089.1	000.2375	0080.6	018.4	52.50	
190.0	000.2000	0039.4	007.6	089.0	000.2369	0080.5	018.2	52.58	
191.0	000.2000	0039.3	007.6	088.9	000.2364	0080.3	018.1	52.67	
192.0	000.2000	0038.8	007.6	088.6	000.2350	0079.9	018.0	52.69	
193.0	000.2000	0038.4	007.5	088.4	000.2338	0079.5	017.9	52.72	
194.0	000.2000	0037.9	007.5	088.1	000.2325	0079.1	017.8	52.75	
195.0	000.2000	0037.1	007.4	087.8	000.2307	0078.3	017.7	52.72	
196.0	000.2000	0036.6	007.3	087.5	000.2293	0077.9	017.6	52.73	
197.0	000.2000	0036.1	007.3	087.2	000.2279	0077.4	017.5	52.74	
198.0	000.2000	0035.8	007.3	086.9	000.2266	0077.1	017.3	52.78	
199.0	000.2000	0035.4	007.2	086.7	000.2253	0076.9	017.2	52.81	
200.0	000.2000	0035.0	007.2	086.4	000.2239	0076.8	017.1	52.86	
201.0	000.2000	0034.5	007.1	086.1	000.2223	0076.7	017.0	52.90	
202.0	000.2000	0034.3	007.1	085.8	000.2211	0076.6	016.9	52.95	
203.0	000.2000	0034.2	007.1	085.6	000.2200	0076.5	016.8	53.02	
204.0	000.2000	0034.1	007.1	085.4	000.2188	0076.4	016.7	53.06	
205.0	000.2000	0033.1	007.0	084.9	000.2164	0076.0	016.7	53.02	
206.0	000.2000	0032.2	006.9	084.4	000.2141	0075.6	016.6	52.99	
207.0	000.2000	0031.5	006.9	084.0	000.2122	0075.4	016.5	52.98	
208.0	000.2000	0031.1	006.8	083.7	000.2105	0075.0	016.5	52.97	
209.0	000.2000	0030.4	006.7	083.2	000.2084	0074.3	016.4	52.90	
210.0	000.2000	0029.6	006.7	082.9	000.2067	0074.1	016.3	52.90	
211.0	000.2000	0029.0	006.7	082.6	000.2055	0073.9	016.2	52.94	
212.0	000.2000	0028.8	006.7	082.4	000.2043	0073.8	016.2	52.97	
213.0	000.2000	0028.5	006.7	082.1	000.2030	0073.4	016.1	52.98	
214.0	000.2000	0027.8	006.7	081.8	000.2017	0073.1	016.0	52.99	
215.0	000.2000	0027.2	006.7	081.6	000.2003	0073.0	015.9	53.02	
216.0	000.2000	0027.1	006.7	081.3	000.1989	0072.7	015.8	53.03	
217.0	000.2000	0026.3	006.7	081.0	000.1975	0072.5	015.7	53.05	
218.0	000.2000	0025.5	006.7	080.7	000.1961	0072.1	015.6	53.05	
219.0	000.2000	0024.4	006.7	080.3	000.1946	0071.8	015.6	53.05	
220.0	000.2000	0023.5	006.7	080.0	000.1931	0071.7	015.5	53.06	

Exhibit 18.3 - Protection to WSDP(Lic) - Plymouth, MI

FMOver Analysis

Page # 5

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
221.0	000.2000	0022.3	006.7	079.7	000.1927	0071.7	015.4	53.12
222.0	000.2000	0020.9	006.7	079.3	000.1923	0071.7	015.3	53.18
223.0	000.2000	0019.6	006.7	079.0	000.1920	0071.8	015.3	53.24
224.0	000.2000	0019.4	006.7	078.6	000.1916	0071.7	015.2	53.29
225.0	000.2000	0019.4	006.7	078.3	000.1912	0071.6	015.1	53.32
226.0	000.2000	0019.2	006.7	077.9	000.1908	0071.3	015.1	53.34
227.0	000.2000	0017.9	006.7	077.5	000.1904	0071.0	015.0	53.35
228.0	000.2000	0015.5	006.7	077.1	000.1900	0070.9	015.0	53.17
229.0	000.2000	0013.9	006.7	076.7	000.1896	0070.8	014.9	53.21
230.0	000.2000	0013.3	006.7	076.3	000.1892	0070.8	014.9	53.27
231.0	000.2000	0012.1	006.7	075.9	000.1888	0070.7	014.8	53.31
232.0	000.2000	0012.2	006.7	075.5	000.1883	0070.7	014.8	53.35
233.0	000.2000	0011.6	006.7	075.1	000.1879	0070.5	014.7	53.36
234.0	000.2000	0010.2	006.7	074.6	000.1875	0070.1	014.7	53.36
235.0	000.2000	0009.8	006.7	074.2	000.1870	0069.6	014.6	53.34
236.0	000.2000	0009.7	006.7	073.8	000.1866	0069.4	014.6	53.35
237.0	000.2000	0011.3	006.7	073.3	000.1861	0069.1	014.6	53.34
238.0	000.2000	0010.7	006.7	072.9	000.1857	0068.7	014.5	53.32
239.0	000.2000	0007.6	006.7	072.4	000.1852	0067.9	014.5	53.24
240.0	000.2000	0005.0	006.7	072.0	000.1847	0067.6	014.5	53.23
241.0	000.2000	0003.9	006.7	071.5	000.1843	0067.7	014.4	53.26
242.0	000.2000	0003.1	006.7	071.1	000.1838	0067.5	014.4	53.25
243.0	000.2000	0002.3	006.7	070.6	000.1833	0066.9	014.4	53.19
244.0	000.2000	0002.0	006.7	070.2	000.1829	0066.7	014.4	53.17
245.0	000.2000	0001.0	006.7	069.7	000.1830	0066.3	014.4	53.14
246.0	000.2000	0000.2	006.7	069.2	000.1835	0065.6	014.4	53.07
247.0	000.2000	0000.0	006.7	068.8	000.1840	0064.6	014.4	52.97
248.0	000.2000	-0001.0	006.7	068.3	000.1844	0063.8	014.4	52.89
249.0	000.2000	-0001.8	006.7	067.8	000.1849	0063.5	014.4	52.86
250.0	000.2000	-0001.8	006.7	067.4	000.1854	0063.1	014.4	52.81
251.0	000.2000	-0002.2	006.7	066.9	000.1859	0062.6	014.4	52.75
252.0	000.2000	-0002.9	006.7	066.4	000.1864	0062.0	014.4	52.68
253.0	000.2000	-0002.5	006.7	066.0	000.1868	0061.8	014.4	52.65
254.0	000.2000	-0002.4	006.7	065.5	000.1873	0062.3	014.4	52.71
255.0	000.2000	-0004.0	006.7	065.1	000.1878	0062.3	014.4	52.69
256.0	000.2000	-0005.3	006.7	064.6	000.1883	0061.7	014.5	52.60
257.0	000.2000	-0005.7	006.7	064.1	000.1887	0060.4	014.5	52.41
258.0	000.2000	-0007.5	006.7	063.7	000.1892	0059.7	014.5	52.31
259.0	000.2000	-0008.5	006.7	063.2	000.1897	0059.7	014.5	52.28
260.0	000.2000	-0008.5	006.7	062.8	000.1901	0059.8	014.6	52.26
261.0	000.2000	-0009.1	006.7	062.4	000.1906	0059.8	014.6	52.24
262.0	000.2000	-0008.8	006.7	061.9	000.1910	0060.2	014.6	52.24
263.0	000.2000	-0009.0	006.7	061.5	000.1915	0060.8	014.7	52.29
264.0	000.2000	-0010.1	006.7	061.1	000.1919	0061.5	014.7	52.33
265.0	000.2000	-0011.7	006.7	060.7	000.1923	0062.1	014.8	52.37
266.0	000.2000	-0013.1	006.7	060.3	000.1928	0062.6	014.8	52.38
267.0	000.2000	-0014.2	006.7	059.8	000.1933	0063.0	014.9	52.38
268.0	000.2000	-0014.6	006.7	059.4	000.1941	0062.9	014.9	52.33
269.0	000.2000	-0015.3	006.7	059.1	000.1949	0062.7	015.0	52.26
270.0	000.2000	-0018.0	006.7	058.7	000.1956	0062.5	015.0	52.43
271.0	000.2000	-0020.1	006.7	058.3	000.1964	0062.5	015.1	52.38

Exhibit 18.3 - Protection to WSDP(Lic) - Plymouth, MI

FMOver Analysis

Page # 6

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
272.0	000.2000	-0021.1	006.7	057.9	000.1971	0062.5	015.2	52.35
273.0	000.2000	-0022.4	006.7	057.6	000.1978	0062.5	015.2	52.31
274.0	000.2000	-0023.4	006.7	057.2	000.1985	0062.5	015.3	52.25
275.0	000.2000	-0024.5	006.7	056.9	000.1992	0062.3	015.4	52.18
276.0	000.2000	-0025.3	006.7	056.5	000.1999	0062.0	015.5	52.10
277.0	000.2000	-0025.8	006.7	056.2	000.2005	0061.8	015.5	52.01
278.0	000.2000	-0025.7	006.7	055.9	000.2012	0061.4	015.6	51.91
279.0	000.2000	-0025.9	006.7	055.5	000.2018	0061.0	015.7	51.81
280.0	000.2000	-0026.3	006.7	055.2	000.2024	0060.6	015.8	51.71
281.0	000.2000	-0026.9	006.7	054.9	000.2030	0060.3	015.9	51.61
282.0	000.2000	-0026.7	006.7	054.6	000.2036	0060.0	015.9	51.50
283.0	000.2000	-0026.5	006.7	054.4	000.2042	0059.8	016.0	51.41
284.0	000.2000	-0027.1	006.7	054.1	000.2047	0059.6	016.1	51.32
285.0	000.2000	-0027.1	006.7	053.8	000.2052	0059.3	016.2	51.21
286.0	000.2000	-0026.7	006.7	053.6	000.2057	0058.8	016.3	51.08
287.0	000.2000	-0026.7	006.7	053.3	000.2062	0058.4	016.4	50.95
288.0	000.2000	-0026.4	006.7	053.1	000.2067	0058.1	016.5	50.83
289.0	000.2000	-0026.2	006.7	052.9	000.2072	0057.6	016.6	50.69
290.0	000.2000	-0026.1	006.7	052.6	000.2076	0057.1	016.7	50.54
291.0	000.2000	-0026.0	006.7	052.4	000.2081	0056.6	016.8	50.39
292.0	000.2000	-0025.0	006.7	052.2	000.2085	0056.0	016.9	50.22
293.0	000.2000	-0024.6	006.7	052.0	000.2089	0055.4	017.0	50.03
294.0	000.2000	-0024.8	006.7	051.8	000.2093	0054.8	017.1	49.86
295.0	000.2000	-0024.7	006.7	051.6	000.2096	0054.4	017.2	49.71
296.0	000.2000	-0024.3	006.7	051.5	000.2100	0054.3	017.3	49.61
297.0	000.2000	-0023.9	006.7	051.3	000.2103	0054.3	017.4	49.52
298.0	000.2000	-0023.7	006.7	051.2	000.2106	0054.2	017.5	49.42
299.0	000.2000	-0022.6	006.7	051.0	000.2109	0054.1	017.6	49.32
300.0	000.2000	-0022.2	006.7	050.9	000.2112	0053.9	017.7	49.20
301.0	000.2000	-0020.7	006.7	050.7	000.2115	0053.7	017.8	49.08
302.0	000.2000	-0020.7	006.7	050.6	000.2117	0053.5	017.9	48.95
303.0	000.2000	-0021.6	006.7	050.5	000.2120	0053.3	018.0	48.83
304.0	000.2000	-0023.3	006.7	050.4	000.2122	0053.1	018.2	48.70
305.0	000.2000	-0024.4	006.7	050.3	000.2124	0052.9	018.3	48.58
306.0	000.2000	-0024.8	006.7	050.2	000.2126	0052.7	018.4	48.45
307.0	000.2000	-0024.7	006.7	050.1	000.2128	0052.5	018.5	48.33

Exhibit 18.4 - Protection to WXUT - Toledo, OH

Exhibit 18.4 - Protection to WXUT - Toledo, OH
Regents Of The University Of Michigan

FMCommander Single Allocation Study - 07-30-2013 - NED 03 SEC
WCBN-FM.C's Overlaps (In= 27.54 km, Out= 1.1 km)

WCBN-FM.C CH 202 A DA

Lat= 42 16 37.0, Lng= 83 44 07.0

2.9 kW 55.9 M HAAT, 320 M COR

Prot.= 60 dBu, Intef.= 40 dBu

WXUT CH 202 A BLED19901120KF

Lat= 41 39 26.0, Lng= 83 36 57.0

0.1 kW 58 M HAAT, 248 M COR

Prot.= 60 dBu, Intef.= 40 dBu

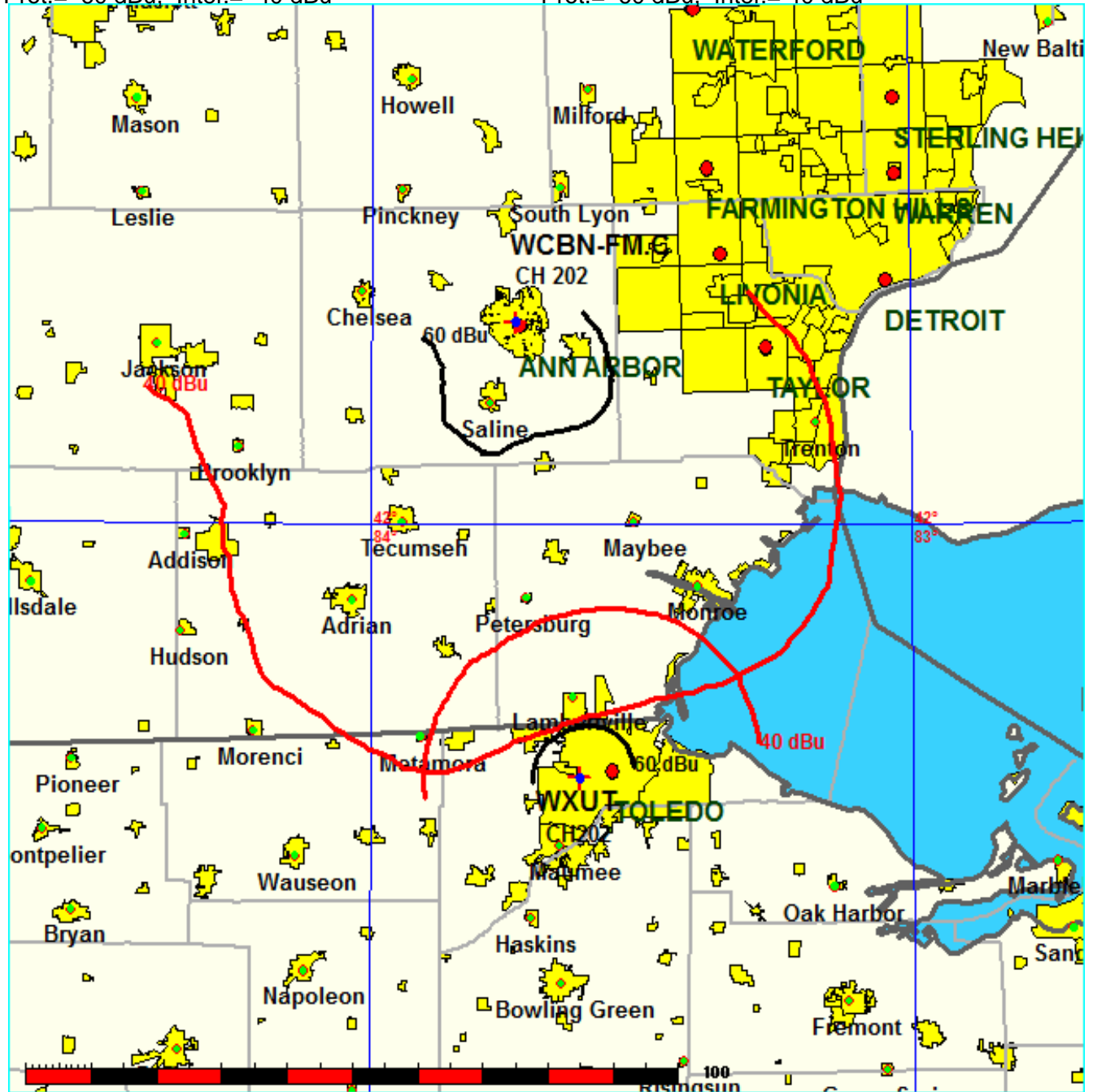


Exhibit 18.4 - Protection to WXUT - Toledo, OH

07-29-2013

Terrain Data: NED 03 SEC

FMOver Analysis

WCBN-FM.C

WXUT BLED19901120KF

Channel = 202A
Max ERP = 2.9 kW
RCAMSL = 320 M
N. Lat. 42 16 37.0
W. Lng. 83 44 07.0
Protected
60 dBu

Channel = 202A
Max ERP = 0.1 kW
RCAMSL = 248 M
N. Lat. 41 39 26.0
W. Lng. 83 36 57.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
112.0	000.6704	0086.8	015.3	003.9	000.1000	0054.0	063.3	25.71	
113.0	000.7040	0086.9	015.6	004.0	000.1000	0054.0	063.0	25.80	
114.0	000.7384	0086.9	015.8	004.1	000.1000	0054.1	062.6	25.89	
115.0	000.7736	0087.4	016.0	004.2	000.1000	0054.1	062.3	25.99	
116.0	000.8097	0088.0	016.3	004.4	000.1000	0054.1	061.9	26.09	
117.0	000.8466	0089.5	016.7	004.6	000.1000	0054.2	061.5	26.20	
118.0	000.8843	0090.7	017.0	004.8	000.1000	0054.3	061.1	26.32	
119.0	000.9228	0089.2	017.1	004.7	000.1000	0054.2	060.8	26.40	
120.0	000.9622	0087.5	017.1	004.6	000.1000	0054.2	060.6	26.47	
121.0	001.0126	0087.6	017.3	004.7	000.1000	0054.2	060.2	26.58	
122.0	001.0643	0086.8	017.5	004.7	000.1000	0054.2	059.8	26.67	
123.0	001.1173	0085.5	017.5	004.6	000.1000	0054.2	059.5	26.76	
124.0	001.1716	0084.7	017.7	004.6	000.1000	0054.2	059.2	26.85	
125.0	001.2271	0084.0	017.8	004.5	000.1000	0054.2	058.9	26.95	
126.0	001.2840	0083.9	018.0	004.6	000.1000	0054.2	058.5	27.06	
127.0	001.3421	0084.1	018.3	004.6	000.1000	0054.2	058.1	27.17	
128.0	001.4016	0084.2	018.5	004.6	000.1000	0054.2	057.7	27.29	
129.0	001.4623	0084.5	018.7	004.6	000.1000	0054.2	057.3	27.41	
130.0	001.5243	0084.4	018.9	004.6	000.1000	0054.2	056.9	27.51	
131.0	001.5628	0083.6	018.9	004.4	000.1000	0054.1	056.6	27.59	
132.0	001.6018	0083.2	019.0	004.3	000.1000	0054.1	056.3	27.68	
133.0	001.6413	0082.6	019.0	004.1	000.1000	0054.1	056.0	27.76	
134.0	001.6812	0082.0	019.1	003.9	000.1000	0054.0	055.8	27.84	
135.0	001.7216	0081.5	019.1	003.7	000.1000	0053.9	055.5	27.91	
136.0	001.7626	0080.9	019.2	003.5	000.1000	0053.8	055.2	27.99	
137.0	001.8039	0080.0	019.2	003.3	000.1000	0053.7	054.9	28.05	
138.0	001.8458	0079.3	019.2	003.1	000.1000	0053.7	054.7	28.13	
139.0	001.8882	0078.5	019.2	002.8	000.1000	0053.7	054.4	28.20	
140.0	001.9310	0077.9	019.3	002.6	000.1000	0053.7	054.2	28.28	
141.0	001.9310	0077.8	019.2	002.3	000.1000	0053.7	054.0	28.34	
142.0	001.9310	0077.1	019.2	002.0	000.1000	0053.4	053.8	28.35	
143.0	001.9310	0076.6	019.1	001.7	000.1000	0053.2	053.7	28.38	
144.0	001.9310	0076.3	019.1	001.4	000.1000	0053.2	053.5	28.43	
145.0	001.9310	0075.8	019.0	001.0	000.1000	0053.1	053.3	28.47	
146.0	001.9310	0074.8	018.9	000.7	000.1000	0053.0	053.3	28.48	
147.0	001.9310	0074.5	018.8	000.4	000.1000	0052.9	053.1	28.51	

Exhibit 18.4 - Protection to WXUT - Toledo, OH

FMOver Analysis

Page # 2

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
148.0	001.9310	0074.3	018.8	000.0	000.1000	0052.7	053.0	28.53
149.0	001.9310	0073.9	018.7	359.7	000.1000	0052.5	052.8	28.56
150.0	001.9310	0073.2	018.6	359.4	000.1000	0052.4	052.7	28.56
151.0	001.9116	0072.0	018.4	359.0	000.1000	0052.2	052.8	28.53
152.0	001.8924	0071.3	018.3	358.6	000.1000	0052.1	052.7	28.52
153.0	001.8732	0071.2	018.2	358.2	000.1000	0051.9	052.7	28.53
154.0	001.8541	0071.9	018.3	357.9	000.1000	0051.9	052.5	28.58
155.0	001.8352	0070.9	018.1	357.6	000.1000	0051.7	052.5	28.55
156.0	001.8163	0070.9	018.1	357.2	000.1000	0051.6	052.4	28.55
157.0	001.7975	0070.6	018.0	356.9	000.1000	0051.6	052.4	28.56
158.0	001.7789	0070.4	017.9	356.5	000.1000	0051.5	052.4	28.56
159.0	001.7603	0069.7	017.7	356.1	000.1000	0051.4	052.4	28.53
160.0	001.7418	0069.2	017.6	355.8	000.1000	0051.2	052.5	28.50
161.0	001.7418	0069.8	017.7	355.5	000.1000	0051.0	052.3	28.53
162.0	001.7418	0069.6	017.7	355.1	000.1000	0050.9	052.3	28.52
163.0	001.7418	0069.2	017.6	354.8	000.1000	0050.9	052.2	28.53
164.0	001.7418	0069.0	017.6	354.5	000.1000	0050.8	052.2	28.53
165.0	001.7418	0068.9	017.6	354.1	000.1000	0050.8	052.2	28.54
166.0	001.7418	0069.1	017.6	353.8	000.1000	0050.8	052.1	28.55
167.0	001.7418	0068.9	017.6	353.5	000.1000	0050.7	052.1	28.54
168.0	001.7418	0069.0	017.6	353.1	000.1000	0050.6	052.0	28.54
169.0	001.7418	0068.7	017.6	352.8	000.1000	0050.5	052.1	28.53
170.0	001.7418	0068.2	017.5	352.5	000.1000	0050.4	052.1	28.50
171.0	001.7707	0068.9	017.7	352.1	000.1000	0050.3	051.9	28.55
172.0	001.7998	0068.7	017.7	351.8	000.1000	0050.2	051.9	28.55
173.0	001.8292	0068.6	017.8	351.5	000.1000	0050.3	051.8	28.57
174.0	001.8588	0069.3	018.0	351.1	000.1000	0050.3	051.6	28.62
175.0	001.8886	0069.4	018.0	350.8	000.1000	0050.2	051.6	28.64
176.0	001.9187	0069.4	018.1	350.4	000.1000	0050.1	051.5	28.64
177.0	001.9490	0069.3	018.2	350.0	000.1000	0050.2	051.5	28.65
178.0	001.9796	0069.6	018.3	349.7	000.1000	0050.2	051.4	28.67
179.0	002.0103	0070.0	018.4	349.3	000.1000	0050.0	051.4	28.68
180.0	002.0414	0070.2	018.5	348.9	000.1000	0049.9	051.3	28.67
181.0	002.1205	0070.7	018.8	348.5	000.1000	0049.9	051.1	28.73
182.0	002.2011	0070.6	018.9	348.1	000.1000	0049.9	051.1	28.75
183.0	002.2832	0070.3	019.1	347.7	000.1000	0049.7	051.0	28.74
184.0	002.3668	0070.8	019.3	347.3	000.1000	0049.5	050.9	28.75
185.0	002.4519	0071.2	019.6	346.8	000.1000	0049.4	050.7	28.77
186.0	002.5385	0072.0	019.8	346.4	000.1000	0049.5	050.6	28.83
187.0	002.6266	0072.3	020.0	345.9	000.1000	0049.6	050.5	28.86
188.0	002.7162	0071.9	020.2	345.5	000.1000	0049.6	050.5	28.85
189.0	002.8074	0071.8	020.3	345.1	000.1000	0049.5	050.5	28.84
190.0	002.9000	0071.2	020.4	344.7	000.1000	0049.3	050.6	28.79
191.0	002.9000	0071.4	020.4	344.3	000.1000	0049.1	050.7	28.73
192.0	002.9000	0071.2	020.4	344.0	000.1000	0049.2	050.9	28.68
193.0	002.9000	0071.1	020.4	343.6	000.1000	0049.2	051.1	28.63
194.0	002.9000	0072.4	020.5	343.2	000.1000	0048.9	051.1	28.59
195.0	002.9000	0071.1	020.4	343.0	000.1000	0048.8	051.5	28.48
196.0	002.9000	0069.0	020.1	342.8	000.1000	0048.7	051.9	28.34
197.0	002.9000	0068.6	020.0	342.5	000.1000	0048.6	052.2	28.25
198.0	002.9000	0067.6	019.9	342.3	000.1000	0048.4	052.5	28.15

Exhibit 18.4 - Protection to WXUT - Toledo, OH

FMOver Analysis

Page # 3

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
199.0	002.9000	0067.4	019.9	342.0	000.1000	0048.3	052.7	28.06
200.0	002.9000	0066.6	019.7	341.8	000.1000	0048.1	053.0	27.95
201.0	002.9000	0066.1	019.7	341.6	000.1000	0047.9	053.3	27.85
202.0	002.9000	0066.1	019.7	341.3	000.1000	0047.8	053.5	27.77
203.0	002.9000	0064.7	019.5	341.1	000.1000	0047.7	053.9	27.65
204.0	002.9000	0063.7	019.3	341.0	000.1000	0047.6	054.2	27.55
205.0	002.9000	0062.5	019.2	340.8	000.1000	0047.5	054.6	27.43
206.0	002.9000	0061.1	019.0	340.7	000.1000	0047.4	054.9	27.32
207.0	002.9000	0060.2	018.8	340.6	000.1000	0047.3	055.3	27.21
208.0	002.9000	0060.5	018.9	340.3	000.1000	0047.2	055.5	27.14
209.0	002.9000	0060.3	018.9	340.1	000.1000	0047.1	055.7	27.05
210.0	002.9000	0059.9	018.8	340.0	000.1000	0047.0	056.0	26.96
211.0	002.9000	0059.4	018.7	339.8	000.1000	0046.9	056.3	26.87
212.0	002.9000	0059.4	018.7	339.6	000.1000	0046.9	056.6	26.80
213.0	002.9000	0059.6	018.8	339.4	000.1000	0046.8	056.8	26.72
214.0	002.9000	0060.2	018.8	339.1	000.1000	0046.8	057.0	26.65
215.0	002.9000	0059.5	018.7	339.0	000.1000	0046.8	057.4	26.56
216.0	002.9000	0058.2	018.5	339.0	000.1000	0046.8	057.7	26.46
217.0	002.9000	0056.2	018.2	339.1	000.1000	0046.8	058.2	26.34
218.0	002.9000	0054.2	017.9	339.3	000.1000	0046.8	058.6	26.22
219.0	002.9000	0051.4	017.3	339.5	000.1000	0046.9	059.2	26.09
220.0	002.9000	0049.7	017.0	339.7	000.1000	0046.9	059.6	25.98
221.0	002.9000	0048.0	016.7	339.8	000.1000	0046.9	060.0	25.87
222.0	002.9000	0046.6	016.4	339.9	000.1000	0047.0	060.4	25.77
223.0	002.9000	0045.6	016.1	340.0	000.1000	0047.0	060.8	25.68
224.0	002.9000	0045.1	016.0	340.0	000.1000	0047.0	061.1	25.60
225.0	002.9000	0043.7	015.8	340.1	000.1000	0047.0	061.4	25.51
226.0	002.9000	0042.7	015.5	340.2	000.1000	0047.1	061.8	25.43
227.0	002.9000	0041.7	015.3	340.3	000.1000	0047.1	062.1	25.35
228.0	002.9000	0040.1	015.0	340.4	000.1000	0047.2	062.5	25.27
229.0	002.9000	0039.0	014.8	340.5	000.1000	0047.3	062.8	25.19
230.0	002.9000	0037.4	014.5	340.7	000.1000	0047.4	063.2	25.12
231.0	002.9000	0035.9	014.2	340.9	000.1000	0047.5	063.5	25.05

Exhibit 18.4 - Protection to WXUT - Toledo, OH

07-29-2013

Terrain Data: NED 03 SEC

FMOver Analysis

WXUT BLED19901120KF

WCBN-FM.C

Channel = 202A

Max ERP = 0.1 kW

RCAMSL = 248 M

N. Lat. 41 39 26.0

W. Lng. 83 36 57.0

Protected

60 dBu

Channel = 202A

Max ERP = 2.9 kW

RCAMSL = 320 M

N. Lat. 42 16 37.0

W. Lng. 83 44 07.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
292.0	000.1000	0048.0	007.1	177.1	001.9526	0069.4	066.3	38.98	
293.0	000.1000	0047.8	007.1	177.1	001.9509	0069.3	066.2	39.01	
294.0	000.1000	0047.5	007.1	177.0	001.9489	0069.3	066.1	39.03	
295.0	000.1000	0047.3	007.0	176.9	001.9469	0069.3	066.0	39.05	
296.0	000.1000	0046.9	007.0	176.9	001.9447	0069.3	065.9	39.07	
297.0	000.1000	0047.2	007.0	176.8	001.9436	0069.3	065.8	39.10	
298.0	000.1000	0047.1	007.0	176.8	001.9417	0069.3	065.7	39.12	
299.0	000.1000	0046.8	007.0	176.7	001.9396	0069.4	065.6	39.15	
300.0	000.1000	0046.9	007.0	176.6	001.9379	0069.4	065.5	39.17	
301.0	000.1000	0047.0	007.0	176.6	001.9363	0069.3	065.4	39.19	
302.0	000.1000	0047.1	007.0	176.5	001.9346	0069.3	065.3	39.22	
303.0	000.1000	0047.6	007.1	176.5	001.9335	0069.3	065.2	39.25	
304.0	000.1000	0047.7	007.1	176.4	001.9318	0069.3	065.1	39.27	
305.0	000.1000	0047.5	007.1	176.4	001.9295	0069.3	065.0	39.29	
306.0	000.1000	0047.5	007.0	176.3	001.9273	0069.3	064.9	39.31	
307.0	000.1000	0047.7	007.1	176.2	001.9255	0069.4	064.8	39.34	
308.0	000.1000	0047.6	007.1	176.1	001.9231	0069.4	064.7	39.36	
309.0	000.1000	0047.6	007.1	176.1	001.9209	0069.4	064.6	39.38	
310.0	000.1000	0047.3	007.0	176.0	001.9183	0069.5	064.5	39.40	
311.0	000.1000	0047.5	007.0	175.9	001.9162	0069.5	064.4	39.42	
312.0	000.1000	0047.9	007.1	175.9	001.9145	0069.5	064.3	39.45	
313.0	000.1000	0048.1	007.1	175.8	001.9124	0069.6	064.2	39.48	
314.0	000.1000	0048.6	007.1	175.7	001.9107	0069.6	064.1	39.51	
315.0	000.1000	0049.2	007.2	175.7	001.9089	0069.6	064.0	39.53	
316.0	000.1000	0048.6	007.1	175.6	001.9056	0069.6	063.9	39.54	
317.0	000.1000	0048.3	007.1	175.5	001.9024	0069.6	063.9	39.55	
318.0	000.1000	0047.9	007.1	175.4	001.8993	0069.6	063.8	39.56	
319.0	000.1000	0047.6	007.1	175.3	001.8962	0069.5	063.8	39.56	
320.0	000.1000	0047.2	007.0	175.1	001.8930	0069.5	063.7	39.56	
321.0	000.1000	0047.0	007.0	175.0	001.8901	0069.4	063.7	39.57	
322.0	000.1000	0046.5	007.0	174.9	001.8867	0069.4	063.7	39.56	
323.0	000.1000	0046.3	006.9	174.8	001.8837	0069.4	063.6	39.57	
324.0	000.1000	0046.1	006.9	174.7	001.8808	0069.4	063.5	39.58	

Exhibit 18.4 - Protection to WXUT - Toledo, OH

FMOver Analysis

Page # 5

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
325.0	000.1000	0045.9	006.9	174.6	001.8778	0069.4	063.5	39.59
326.0	000.1000	0045.9	006.9	174.5	001.8749	0069.4	063.4	39.60
327.0	000.1000	0046.0	006.9	174.4	001.8721	0069.4	063.4	39.61
328.0	000.1000	0046.2	006.9	174.4	001.8694	0069.4	063.3	39.62
329.0	000.1000	0046.4	007.0	174.3	001.8666	0069.4	063.2	39.63
330.0	000.1000	0046.4	007.0	174.2	001.8636	0069.3	063.2	39.64
331.0	000.1000	0046.5	007.0	174.1	001.8607	0069.3	063.1	39.64
332.0	000.1000	0046.5	007.0	174.0	001.8576	0069.3	063.1	39.65
333.0	000.1000	0046.7	007.0	173.9	001.8547	0069.3	063.0	39.66
334.0	000.1000	0046.8	007.0	173.8	001.8517	0069.2	063.0	39.66
335.0	000.1000	0047.0	007.0	173.7	001.8487	0069.1	062.9	39.66
336.0	000.1000	0047.0	007.0	173.6	001.8456	0069.0	062.9	39.66
337.0	000.1000	0046.8	007.0	173.4	001.8423	0068.9	062.9	39.65
338.0	000.1000	0046.6	007.0	173.3	001.8390	0068.8	062.8	39.64
339.0	000.1000	0046.8	007.0	173.2	001.8360	0068.7	062.8	39.64
340.0	000.1000	0047.0	007.0	173.1	001.8329	0068.6	062.8	39.64
341.0	000.1000	0047.6	007.1	173.0	001.8299	0068.6	062.7	39.65
342.0	000.1000	0048.3	007.1	172.9	001.8270	0068.6	062.6	39.66
343.0	000.1000	0048.8	007.2	172.8	001.8239	0068.6	062.5	39.67
344.0	000.1000	0049.2	007.2	172.7	001.8206	0068.6	062.5	39.68
345.0	000.1000	0049.5	007.2	172.6	001.8174	0068.6	062.4	39.69
346.0	000.1000	0049.6	007.2	172.5	001.8141	0068.6	062.4	39.69
347.0	000.1000	0049.4	007.2	172.4	001.8106	0068.6	062.4	39.68
348.0	000.1000	0049.9	007.2	172.3	001.8073	0068.6	062.4	39.69
349.0	000.1000	0049.9	007.2	172.1	001.8039	0068.7	062.4	39.69
350.0	000.1000	0050.2	007.3	172.0	001.8006	0068.7	062.3	39.69
351.0	000.1000	0050.3	007.3	171.9	001.7972	0068.7	062.3	39.68
352.0	000.1000	0050.3	007.3	171.8	001.7937	0068.7	062.3	39.68
353.0	000.1000	0050.5	007.3	171.7	001.7903	0068.7	062.3	39.67
354.0	000.1000	0050.8	007.3	171.6	001.7869	0068.8	062.3	39.67
355.0	000.1000	0050.9	007.3	171.4	001.7835	0068.8	062.3	39.67
356.0	000.1000	0051.3	007.3	171.3	001.7800	0068.8	062.3	39.67
357.0	000.1000	0051.6	007.4	171.2	001.7765	0068.9	062.3	39.67
358.0	000.1000	0051.9	007.4	171.1	001.7730	0068.9	062.3	39.66
359.0	000.1000	0052.2	007.4	171.0	001.7695	0068.9	062.2	39.65
000.0	000.1000	0052.6	007.4	170.8	001.7660	0068.8	062.2	39.64
001.0	000.1000	0053.1	007.5	170.7	001.7624	0068.7	062.2	39.63
002.0	000.1000	0053.4	007.5	170.6	001.7588	0068.6	062.2	39.61
003.0	000.1000	0053.7	007.5	170.5	001.7553	0068.4	062.2	39.59
004.0	000.1000	0054.0	007.6	170.3	001.7517	0068.3	062.2	39.57
005.0	000.1000	0054.3	007.6	170.2	001.7482	0068.2	062.2	39.55
006.0	000.1000	0054.6	007.6	170.1	001.7446	0068.2	062.3	39.53
007.0	000.1000	0054.9	007.6	170.0	001.7418	0068.2	062.3	39.53
008.0	000.1000	0055.5	007.7	169.8	001.7418	0068.2	062.3	39.53
009.0	000.1000	0056.0	007.7	169.7	001.7418	0068.3	062.3	39.53
010.0	000.1000	0056.6	007.7	169.6	001.7418	0068.4	062.3	39.54
011.0	000.1000	0057.0	007.8	169.5	001.7418	0068.4	062.3	39.54
012.0	000.1000	0057.2	007.8	169.3	001.7418	0068.5	062.3	39.53
013.0	000.1000	0057.6	007.8	169.2	001.7418	0068.5	062.4	39.52
014.0	000.1000	0057.9	007.8	169.1	001.7418	0068.6	062.4	39.52
015.0	000.1000	0058.1	007.9	169.0	001.7418	0068.7	062.4	39.51

Exhibit 18.4 - Protection to WXUT - Toledo, OH

FMOver Analysis

Page # 6

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
016.0	000.1000	0058.5	007.9	168.8	001.7418	0068.8	062.5	39.51
017.0	000.1000	0058.8	007.9	168.7	001.7418	0068.8	062.5	39.50
018.0	000.1000	0059.2	007.9	168.6	001.7418	0068.9	062.6	39.49
019.0	000.1000	0059.6	008.0	168.5	001.7418	0068.9	062.6	39.48
020.0	000.1000	0060.0	008.0	168.4	001.7418	0069.0	062.7	39.47
021.0	000.1000	0060.7	008.0	168.2	001.7418	0069.0	062.7	39.46
022.0	000.1000	0061.1	008.1	168.1	001.7418	0069.0	062.8	39.45
023.0	000.1000	0061.4	008.1	168.0	001.7418	0069.0	062.8	39.43
024.0	000.1000	0062.0	008.1	167.9	001.7418	0069.0	062.9	39.41
025.0	000.1000	0062.6	008.2	167.7	001.7418	0068.9	062.9	39.39
026.0	000.1000	0063.3	008.2	167.6	001.7418	0068.9	063.0	39.37
027.0	000.1000	0063.6	008.2	167.5	001.7418	0068.9	063.0	39.35
028.0	000.1000	0064.1	008.3	167.4	001.7418	0068.9	063.1	39.33
029.0	000.1000	0064.4	008.3	167.3	001.7418	0068.8	063.2	39.31
030.0	000.1000	0064.9	008.3	167.1	001.7418	0068.9	063.3	39.29
031.0	000.1000	0065.1	008.3	167.0	001.7418	0068.9	063.4	39.26
032.0	000.1000	0065.3	008.3	166.9	001.7418	0068.9	063.4	39.24
033.0	000.1000	0065.6	008.4	166.8	001.7418	0068.9	063.5	39.21
034.0	000.1000	0066.0	008.4	166.7	001.7418	0068.9	063.6	39.19
035.0	000.1000	0066.0	008.4	166.6	001.7418	0068.9	063.7	39.16
036.0	000.1000	0066.3	008.4	166.5	001.7418	0068.9	063.8	39.13
037.0	000.1000	0066.5	008.4	166.4	001.7418	0068.9	063.9	39.11
038.0	000.1000	0066.8	008.4	166.4	001.7418	0069.0	064.0	39.08
039.0	000.1000	0066.8	008.4	166.3	001.7418	0069.0	064.2	39.05
040.0	000.1000	0067.0	008.4	166.2	001.7418	0069.0	064.3	39.02
041.0	000.1000	0067.4	008.5	166.1	001.7418	0069.1	064.4	39.00
042.0	000.1000	0067.7	008.5	166.0	001.7418	0069.1	064.5	38.97
043.0	000.1000	0067.8	008.5	165.9	001.7418	0069.1	064.6	38.93
044.0	000.1000	0068.1	008.5	165.8	001.7418	0069.1	064.7	38.90
045.0	000.1000	0067.9	008.5	165.8	001.7418	0069.0	064.9	38.86
046.0	000.1000	0068.0	008.5	165.7	001.7418	0069.0	065.0	38.83
047.0	000.1000	0068.1	008.5	165.6	001.7418	0069.0	065.1	38.79
048.0	000.1000	0068.4	008.5	165.6	001.7418	0069.0	065.2	38.76
049.0	000.1000	0068.5	008.5	165.5	001.7418	0068.9	065.4	38.72
050.0	000.1000	0068.2	008.5	165.4	001.7418	0068.9	065.5	38.68
051.0	000.1000	0068.5	008.5	165.4	001.7418	0068.9	065.6	38.64

Exhibit 18.5 - Protection to WXTS - Toledo, OH

Exhibit 18.4 - Protection to WXTS - Toledo, OH
Regents Of The University Of Michigan

FMCommander Single Allocation Study - 07-30-2013 - NED 03 SEC
WCBN-FM.C's Overlaps (In= 31.73 km, Out= 2.43 km)

WCBN-FM.C CH 202 A DA
Lat= 42 16 37.0, Lng= 83 44 07.0
2.9 kW 55.9 M HAAT, 320 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WXTS-FM CH 202 A BLED19811130AM
Lat= 41 40 07.0, Lng= 83 33 15.0
0.105 kW 38 M HAAT, 224 M COR
Prot.= 60 dBu, Intef.= 40 dBu

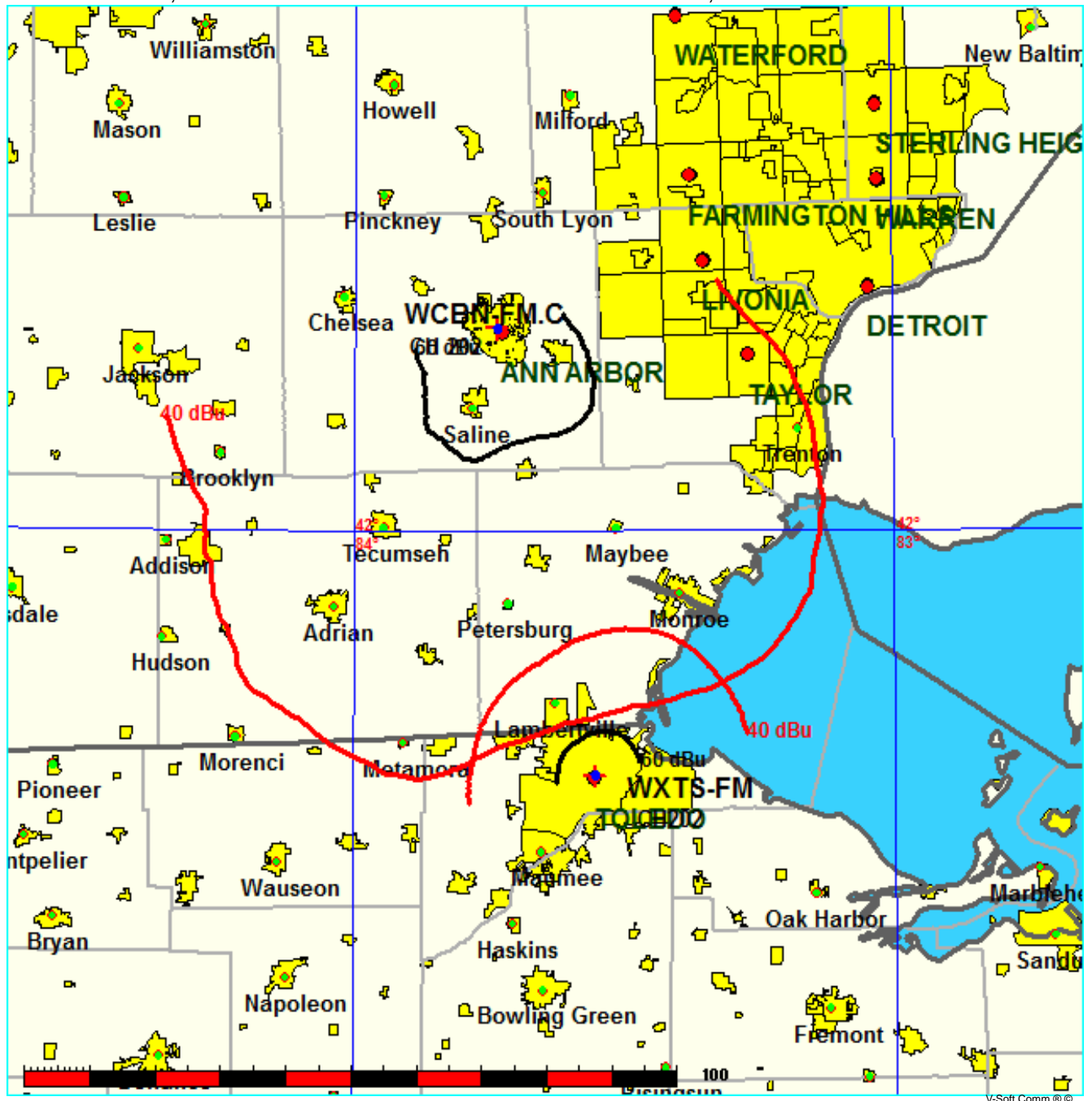


Exhibit 18.5 - Protection to WXTS - Toledo, OH

07-29-2013

Terrain Data: NED 03 SEC

FMOVer Analysis

WCBN-FM.C

WXTS-FM BLED19811130AM

Channel = 202A

Max ERP = 2.9 kW

RCAMSL = 320 M

N. Lat. 42 16 37.0

W. Lng. 83 44 07.0

Protected

60 dBu

Channel = 202A

Max ERP = 0.105 kW

RCAMSL = 224 M

N. Lat. 41 40 07.0

W. Lng. 83 33 15.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
107.0	000.5332	0088.8	014.6	359.1	000.1050	0037.6	063.4	24.23	
108.0	000.5569	0088.8	014.8	359.1	000.1050	0037.6	063.1	24.29	
109.0	000.5810	0088.6	014.9	359.2	000.1050	0037.6	062.8	24.36	
110.0	000.6057	0088.1	015.1	359.2	000.1050	0037.6	062.5	24.43	
111.0	000.6376	0087.4	015.2	359.2	000.1050	0037.6	062.2	24.49	
112.0	000.6704	0086.8	015.3	359.3	000.1050	0037.6	061.9	24.56	
113.0	000.7040	0086.9	015.6	359.4	000.1050	0037.6	061.6	24.64	
114.0	000.7384	0086.9	015.8	359.4	000.1050	0037.7	061.2	24.72	
115.0	000.7736	0087.4	016.0	359.5	000.1050	0037.7	060.9	24.81	
116.0	000.8097	0088.0	016.3	359.7	000.1050	0037.8	060.5	24.90	
117.0	000.8466	0089.5	016.7	359.9	000.1050	0037.8	060.1	25.01	
118.0	000.8843	0090.7	017.0	000.0	000.1050	0037.9	059.6	25.11	
119.0	000.9228	0089.2	017.1	359.9	000.1050	0037.8	059.4	25.17	
120.0	000.9622	0087.5	017.1	359.8	000.1050	0037.8	059.1	25.23	
121.0	001.0126	0087.6	017.3	359.8	000.1050	0037.8	058.7	25.32	
122.0	001.0643	0086.8	017.5	359.8	000.1050	0037.8	058.4	25.40	
123.0	001.1173	0085.5	017.5	359.7	000.1050	0037.8	058.1	25.47	
124.0	001.1716	0084.7	017.7	359.6	000.1050	0037.8	057.7	25.55	
125.0	001.2271	0084.0	017.8	359.6	000.1050	0037.7	057.4	25.62	
126.0	001.2840	0083.9	018.0	359.6	000.1050	0037.7	057.0	25.71	
127.0	001.3421	0084.1	018.3	359.6	000.1050	0037.7	056.6	25.81	
128.0	001.4016	0084.2	018.5	359.5	000.1050	0037.7	056.2	25.90	
129.0	001.4623	0084.5	018.7	359.5	000.1050	0037.7	055.8	26.00	
130.0	001.5243	0084.4	018.9	359.4	000.1050	0037.7	055.5	26.09	
131.0	001.5628	0083.6	018.9	359.2	000.1050	0037.6	055.2	26.14	
132.0	001.6018	0083.2	019.0	359.1	000.1050	0037.5	054.9	26.21	
133.0	001.6413	0082.6	019.0	358.9	000.1050	0037.4	054.6	26.26	
134.0	001.6812	0082.0	019.1	358.6	000.1050	0037.4	054.4	26.31	
135.0	001.7216	0081.5	019.1	358.4	000.1050	0037.3	054.1	26.37	
136.0	001.7626	0080.9	019.2	358.2	000.1050	0037.3	053.8	26.43	
137.0	001.8039	0080.0	019.2	357.9	000.1050	0037.2	053.6	26.48	
138.0	001.8458	0079.3	019.2	357.7	000.1050	0037.2	053.4	26.53	
139.0	001.8882	0078.5	019.2	357.4	000.1050	0037.1	053.2	26.58	
140.0	001.9310	0077.9	019.3	357.2	000.1050	0037.0	052.9	26.61	
141.0	001.9310	0077.8	019.2	356.9	000.1050	0036.9	052.7	26.64	
142.0	001.9310	0077.1	019.2	356.5	000.1050	0036.7	052.6	26.64	

Exhibit 18.5 - Protection to WXTS - Toledo, OH

FMOver Analysis

Page # 2

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
143.0	001.9310	0076.6	019.1	356.2	000.1050	0036.5	052.5	26.64
144.0	001.9310	0076.3	019.1	355.8	000.1050	0036.3	052.3	26.66
145.0	001.9310	0075.8	019.0	355.5	000.1050	0036.3	052.2	26.68
146.0	001.9310	0074.8	018.9	355.1	000.1050	0036.2	052.2	26.68
147.0	001.9310	0074.5	018.8	354.8	000.1050	0036.1	052.1	26.70
148.0	001.9310	0074.3	018.8	354.4	000.1050	0036.1	051.9	26.72
149.0	001.9310	0073.9	018.7	354.1	000.1050	0036.0	051.8	26.73
150.0	001.9310	0073.2	018.6	353.7	000.1050	0035.9	051.8	26.73
151.0	001.9116	0072.0	018.4	353.3	000.1050	0035.9	051.8	26.71
152.0	001.8924	0071.3	018.3	352.9	000.1050	0035.8	051.9	26.69
153.0	001.8732	0071.2	018.2	352.6	000.1050	0035.6	051.8	26.68
154.0	001.8541	0071.9	018.3	352.2	000.1050	0035.6	051.7	26.71
155.0	001.8352	0070.9	018.1	351.9	000.1050	0035.7	051.7	26.70
156.0	001.8163	0070.9	018.1	351.5	000.1050	0035.5	051.7	26.68
157.0	001.7975	0070.6	018.0	351.1	000.1050	0035.3	051.7	26.65
158.0	001.7789	0070.4	017.9	350.8	000.1050	0035.0	051.7	26.61
159.0	001.7603	0069.7	017.7	350.4	000.1050	0034.8	051.8	26.55
160.0	001.7418	0069.2	017.6	350.1	000.1050	0034.8	051.8	26.54
161.0	001.7418	0069.8	017.7	349.7	000.1050	0034.8	051.7	26.57
162.0	001.7418	0069.6	017.7	349.4	000.1050	0034.6	051.7	26.55
163.0	001.7418	0069.2	017.6	349.1	000.1050	0034.4	051.7	26.50
164.0	001.7418	0069.0	017.6	348.7	000.1050	0034.2	051.7	26.48
165.0	001.7418	0068.9	017.6	348.4	000.1050	0034.1	051.7	26.46
166.0	001.7418	0069.1	017.6	348.0	000.1050	0033.9	051.6	26.43
167.0	001.7418	0068.9	017.6	347.7	000.1050	0033.7	051.7	26.39
168.0	001.7418	0069.0	017.6	347.4	000.1050	0033.5	051.7	26.37
169.0	001.7418	0068.7	017.6	347.0	000.1050	0033.4	051.7	26.35
170.0	001.7418	0068.2	017.5	346.7	000.1050	0033.4	051.8	26.33
171.0	001.7707	0068.9	017.7	346.3	000.1050	0033.3	051.6	26.35
172.0	001.7998	0068.7	017.7	346.0	000.1050	0033.1	051.6	26.31
173.0	001.8292	0068.6	017.8	345.7	000.1050	0032.9	051.6	26.29
174.0	001.8588	0069.3	018.0	345.3	000.1050	0032.9	051.5	26.32
175.0	001.8886	0069.4	018.0	344.9	000.1050	0032.8	051.4	26.31
176.0	001.9187	0069.4	018.1	344.6	000.1050	0032.7	051.4	26.30
177.0	001.9490	0069.3	018.2	344.2	000.1050	0032.4	051.4	26.24
178.0	001.9796	0069.6	018.3	343.8	000.1050	0032.3	051.4	26.24
179.0	002.0103	0070.0	018.4	343.5	000.1050	0032.2	051.3	26.24
180.0	002.0414	0070.2	018.5	343.1	000.1050	0032.0	051.3	26.20
181.0	002.1205	0070.7	018.8	342.7	000.1050	0031.9	051.2	26.21
182.0	002.2011	0070.6	018.9	342.2	000.1050	0031.8	051.1	26.21
183.0	002.2832	0070.3	019.1	341.8	000.1050	0031.7	051.1	26.19
184.0	002.3668	0070.8	019.3	341.4	000.1050	0031.6	051.0	26.20
185.0	002.4519	0071.2	019.6	340.9	000.1050	0031.4	050.9	26.18
186.0	002.5385	0072.0	019.8	340.5	000.1050	0031.3	050.8	26.20
187.0	002.6266	0072.3	020.0	340.0	000.1050	0031.3	050.8	26.20
188.0	002.7162	0071.9	020.2	339.6	000.1050	0031.3	050.9	26.18
189.0	002.8074	0071.8	020.3	339.2	000.1050	0031.2	050.9	26.16
190.0	002.9000	0071.2	020.4	338.8	000.1050	0031.1	051.0	26.11
191.0	002.9000	0071.4	020.4	338.4	000.1050	0031.1	051.2	26.08
192.0	002.9000	0071.2	020.4	338.1	000.1050	0031.0	051.4	26.02
193.0	002.9000	0071.1	020.4	337.8	000.1050	0030.9	051.6	25.95

Exhibit 18.5 - Protection to WXTS - Toledo, OH

FMOver Analysis

Page # 3

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
194.0	002.9000	0072.4	020.5	337.4	000.1050	0030.9	051.7	25.93
195.0	002.9000	0071.1	020.4	337.2	000.1050	0030.9	052.0	25.86
196.0	002.9000	0069.0	020.1	337.1	000.1050	0030.9	052.5	25.76
197.0	002.9000	0068.6	020.0	336.8	000.1050	0030.9	052.8	25.70
198.0	002.9000	0067.6	019.9	336.6	000.1050	0030.8	053.1	25.62
199.0	002.9000	0067.4	019.9	336.4	000.1050	0030.7	053.3	25.55
200.0	002.9000	0066.6	019.7	336.2	000.1050	0030.7	053.7	25.46
201.0	002.9000	0066.1	019.7	336.0	000.1050	0030.6	053.9	25.39
202.0	002.9000	0066.1	019.7	335.7	000.1050	0030.4	054.2	25.31
203.0	002.9000	0064.7	019.5	335.7	000.1050	0030.4	054.6	25.22
204.0	002.9000	0063.7	019.3	335.5	000.1050	0030.3	054.9	25.14
205.0	002.9000	0062.5	019.2	335.4	000.1050	0030.3	055.3	25.05
206.0	002.9000	0061.1	019.0	335.4	000.1050	0030.3	055.7	24.97
207.0	002.9000	0060.2	018.8	335.3	000.1050	0030.3	056.0	24.90
208.0	002.9000	0060.5	018.9	335.0	000.1050	0030.3	056.2	24.85
209.0	002.9000	0060.3	018.9	334.8	000.1050	0030.2	056.5	24.78
210.0	002.9000	0059.9	018.8	334.7	000.1050	0030.2	056.8	24.70
211.0	002.9000	0059.4	018.7	334.6	000.1050	0030.1	057.1	24.63
212.0	002.9000	0059.4	018.7	334.4	000.1050	0030.1	057.4	24.57
213.0	002.9000	0059.6	018.8	334.2	000.1050	0030.1	057.7	24.51
214.0	002.9000	0060.2	018.8	334.0	000.1050	0030.1	057.9	24.46
215.0	002.9000	0059.5	018.7	333.9	000.1050	0030.0	058.2	24.39
216.0	002.9000	0058.2	018.5	333.9	000.1050	0030.1	058.6	24.31
217.0	002.9000	0056.2	018.2	334.1	000.1050	0030.1	059.1	24.22
218.0	002.9000	0054.2	017.9	334.2	000.1050	0030.1	059.5	24.13
219.0	002.9000	0051.4	017.3	334.6	000.1050	0030.1	060.0	24.03
220.0	002.9000	0049.7	017.0	334.7	000.1050	0030.2	060.4	23.95
221.0	002.9000	0048.0	016.7	334.9	000.1050	0030.3	060.8	23.88
222.0	002.9000	0046.6	016.4	335.1	000.1050	0030.3	061.2	23.81
223.0	002.9000	0045.6	016.1	335.2	000.1050	0030.3	061.6	23.74
224.0	002.9000	0045.1	016.0	335.2	000.1050	0030.3	061.9	23.68
225.0	002.9000	0043.7	015.8	335.3	000.1050	0030.3	062.2	23.61
226.0	002.9000	0042.7	015.5	335.4	000.1050	0030.3	062.6	23.54

Exhibit 18.5 - Protection to WXTS - Toledo, OH

07-29-2013 Terrain Data: NED 03 SEC FMOver Analysis

WXTS-FM BLED19811130AM

WCBN-FM.C

Channel = 202A
Max ERP = 0.105 kW
RCAMSL = 224 M
N. Lat. 41 40 07.0
W. Lng. 83 33 15.0
Protected
60 dBu

Channel = 202A
Max ERP = 2.9 kW
RCAMSL = 320 M
N. Lat. 42 16 37.0
W. Lng. 83 44 07.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
288.0	000.1050	0029.0	005.7	171.7	001.7912	0068.7	066.6	38.50	
289.0	000.1050	0028.9	005.7	171.7	001.7901	0068.7	066.5	38.52	
290.0	000.1050	0029.3	005.7	171.6	001.7890	0068.7	066.4	38.55	
291.0	000.1050	0029.8	005.7	171.6	001.7877	0068.7	066.3	38.57	
292.0	000.1050	0030.7	005.8	171.6	001.7877	0068.7	066.2	38.60	
293.0	000.1050	0030.0	005.7	171.5	001.7852	0068.8	066.1	38.61	
294.0	000.1050	0028.8	005.7	171.5	001.7839	0068.8	066.0	38.63	
295.0	000.1050	0028.1	005.7	171.4	001.7825	0068.8	066.0	38.65	
296.0	000.1050	0027.8	005.7	171.4	001.7811	0068.8	065.9	38.67	
297.0	000.1050	0027.0	005.7	171.3	001.7796	0068.8	065.8	38.69	
298.0	000.1050	0026.2	005.7	171.3	001.7782	0068.9	065.7	38.71	
299.0	000.1050	0026.3	005.7	171.2	001.7766	0068.9	065.6	38.73	
300.0	000.1050	0026.6	005.7	171.2	001.7751	0068.9	065.6	38.75	
301.0	000.1050	0026.6	005.7	171.1	001.7735	0068.9	065.5	38.76	
302.0	000.1050	0026.7	005.7	171.0	001.7718	0068.9	065.4	38.78	
303.0	000.1050	0026.8	005.7	171.0	001.7701	0068.9	065.3	38.79	
304.0	000.1050	0026.9	005.7	170.9	001.7684	0068.9	065.3	38.81	
305.0	000.1050	0027.1	005.7	170.9	001.7667	0068.8	065.2	38.82	
306.0	000.1050	0026.9	005.7	170.8	001.7649	0068.7	065.1	38.83	
307.0	000.1050	0027.1	005.7	170.7	001.7631	0068.7	065.0	38.84	
308.0	000.1050	0026.8	005.7	170.7	001.7612	0068.7	065.0	38.85	
309.0	000.1050	0027.1	005.7	170.6	001.7593	0068.6	064.9	38.86	
310.0	000.1050	0027.0	005.7	170.5	001.7574	0068.5	064.8	38.87	
311.0	000.1050	0026.9	005.7	170.5	001.7555	0068.4	064.8	38.88	
312.0	000.1050	0027.0	005.7	170.4	001.7535	0068.3	064.7	38.88	
313.0	000.1050	0027.3	005.7	170.3	001.7515	0068.3	064.6	38.89	
314.0	000.1050	0027.4	005.7	170.3	001.7494	0068.2	064.6	38.90	
315.0	000.1050	0027.3	005.7	170.2	001.7474	0068.2	064.5	38.90	
316.0	000.1050	0027.3	005.7	170.1	001.7453	0068.2	064.5	38.91	
317.0	000.1050	0027.5	005.7	170.0	001.7432	0068.2	064.4	38.92	
318.0	000.1050	0028.0	005.7	170.0	001.7418	0068.2	064.4	38.94	
319.0	000.1050	0028.7	005.7	169.9	001.7418	0068.2	064.3	38.95	
320.0	000.1050	0028.5	005.7	169.8	001.7418	0068.3	064.3	38.97	

Exhibit 18.5 - Protection to WXTS - Toledo, OH

FMOver Analysis

Page # 5

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
321.0	000.1050	0028.8	005.7	169.7	001.7418	0068.3	064.2	38.99
322.0	000.1050	0028.6	005.7	169.7	001.7418	0068.4	064.2	39.00
323.0	000.1050	0028.8	005.7	169.6	001.7418	0068.4	064.1	39.02
324.0	000.1050	0028.7	005.7	169.5	001.7418	0068.4	064.1	39.03
325.0	000.1050	0029.0	005.7	169.4	001.7418	0068.4	064.0	39.04
326.0	000.1050	0029.4	005.7	169.3	001.7418	0068.5	064.0	39.06
327.0	000.1050	0029.7	005.7	169.3	001.7418	0068.5	064.0	39.07
328.0	000.1050	0029.7	005.7	169.2	001.7418	0068.6	063.9	39.09
329.0	000.1050	0029.9	005.7	169.1	001.7418	0068.6	063.9	39.10
330.0	000.1050	0029.9	005.7	169.0	001.7418	0068.7	063.8	39.11
331.0	000.1050	0029.9	005.7	168.9	001.7418	0068.7	063.8	39.12
332.0	000.1050	0030.0	005.7	168.8	001.7418	0068.8	063.8	39.14
333.0	000.1050	0029.9	005.7	168.8	001.7418	0068.8	063.8	39.15
334.0	000.1050	0030.1	005.7	168.7	001.7418	0068.9	063.7	39.16
335.0	000.1050	0030.3	005.7	168.6	001.7418	0068.9	063.7	39.17
336.0	000.1050	0030.6	005.8	168.5	001.7418	0068.9	063.6	39.19
337.0	000.1050	0030.9	005.8	168.4	001.7418	0069.0	063.6	39.20
338.0	000.1050	0031.0	005.8	168.3	001.7418	0069.0	063.6	39.21
339.0	000.1050	0031.1	005.8	168.2	001.7418	0069.0	063.5	39.23
340.0	000.1050	0031.3	005.8	168.2	001.7418	0069.0	063.5	39.23
341.0	000.1050	0031.4	005.8	168.1	001.7418	0069.0	063.5	39.24
342.0	000.1050	0031.7	005.8	168.0	001.7418	0069.0	063.5	39.25
343.0	000.1050	0032.0	005.9	167.9	001.7418	0069.0	063.4	39.25
344.0	000.1050	0032.4	005.9	167.8	001.7418	0068.9	063.4	39.26
345.0	000.1050	0032.8	005.9	167.7	001.7418	0068.9	063.3	39.27
346.0	000.1050	0033.1	006.0	167.6	001.7418	0068.9	063.3	39.28
347.0	000.1050	0033.4	006.0	167.5	001.7418	0068.9	063.3	39.29
348.0	000.1050	0033.8	006.0	167.4	001.7418	0068.9	063.2	39.29
349.0	000.1050	0034.3	006.1	167.3	001.7418	0068.8	063.2	39.30
350.0	000.1050	0034.8	006.1	167.2	001.7418	0068.8	063.2	39.31
351.0	000.1050	0035.2	006.1	167.1	001.7418	0068.9	063.1	39.32
352.0	000.1050	0035.7	006.2	167.0	001.7418	0068.9	063.1	39.33
353.0	000.1050	0035.8	006.2	166.9	001.7418	0068.9	063.1	39.33
354.0	000.1050	0036.0	006.2	166.8	001.7418	0068.9	063.1	39.33
355.0	000.1050	0036.2	006.2	166.7	001.7418	0068.9	063.1	39.34
356.0	000.1050	0036.4	006.2	166.6	001.7418	0068.9	063.1	39.34
357.0	000.1050	0036.9	006.3	166.5	001.7418	0068.9	063.1	39.35
358.0	000.1050	0037.3	006.3	166.4	001.7418	0068.9	063.1	39.35
359.0	000.1050	0037.5	006.3	166.3	001.7418	0069.0	063.1	39.35
000.0	000.1050	0037.9	006.4	166.2	001.7418	0069.0	063.1	39.35
001.0	000.1050	0038.2	006.4	166.1	001.7418	0069.0	063.1	39.36
002.0	000.1050	0038.7	006.4	166.0	001.7418	0069.1	063.1	39.36
003.0	000.1050	0039.1	006.4	165.9	001.7418	0069.1	063.1	39.36
004.0	000.1050	0039.4	006.5	165.8	001.7418	0069.0	063.1	39.35
005.0	000.1050	0039.6	006.5	165.7	001.7418	0069.0	063.1	39.35
006.0	000.1050	0040.1	006.5	165.6	001.7418	0069.0	063.1	39.34
007.0	000.1050	0040.5	006.6	165.5	001.7418	0068.9	063.1	39.34
008.0	000.1050	0040.7	006.6	165.4	001.7418	0068.9	063.1	39.33
009.0	000.1050	0041.3	006.6	165.3	001.7418	0068.9	063.1	39.33
010.0	000.1050	0041.7	006.7	165.1	001.7418	0068.8	063.2	39.32
011.0	000.1050	0041.9	006.7	165.0	001.7418	0068.9	063.2	39.31

Exhibit 18.5 - Protection to WXTS - Toledo, OH

FMOver Analysis

Page # 6

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
012.0	000.1050	0042.3	006.7	164.9	001.7418	0068.9	063.2	39.31
013.0	000.1050	0042.6	006.7	164.8	001.7418	0068.9	063.2	39.30
014.0	000.1050	0042.8	006.8	164.7	001.7418	0068.9	063.3	39.28
015.0	000.1050	0043.2	006.8	164.6	001.7418	0068.9	063.3	39.28
016.0	000.1050	0043.6	006.8	164.5	001.7418	0068.9	063.3	39.27
017.0	000.1050	0044.1	006.9	164.4	001.7418	0068.9	063.4	39.26
018.0	000.1050	0044.3	006.9	164.3	001.7418	0068.9	063.4	39.25
019.0	000.1050	0044.6	006.9	164.2	001.7418	0068.9	063.5	39.23
020.0	000.1050	0044.9	006.9	164.1	001.7418	0069.0	063.5	39.22
021.0	000.1050	0045.2	007.0	164.0	001.7418	0069.0	063.6	39.21
022.0	000.1050	0045.5	007.0	163.9	001.7418	0068.9	063.6	39.19
023.0	000.1050	0045.9	007.0	163.8	001.7418	0068.9	063.7	39.17
024.0	000.1050	0046.2	007.0	163.7	001.7418	0068.9	063.7	39.16
025.0	000.1050	0046.2	007.0	163.6	001.7418	0068.9	063.8	39.13
026.0	000.1050	0046.4	007.0	163.5	001.7418	0068.9	063.9	39.12
027.0	000.1050	0046.5	007.1	163.4	001.7418	0069.0	064.0	39.10
028.0	000.1050	0046.8	007.1	163.3	001.7418	0069.0	064.0	39.09
029.0	000.1050	0047.3	007.1	163.2	001.7418	0069.1	064.1	39.08
030.0	000.1050	0047.6	007.1	163.1	001.7418	0069.2	064.2	39.06
031.0	000.1050	0047.7	007.2	163.1	001.7418	0069.2	064.3	39.04
032.0	000.1050	0047.5	007.1	163.0	001.7418	0069.2	064.4	39.01
033.0	000.1050	0047.7	007.2	162.9	001.7418	0069.2	064.4	38.99
034.0	000.1050	0047.8	007.2	162.8	001.7418	0069.2	064.5	38.96
035.0	000.1050	0047.8	007.2	162.8	001.7418	0069.2	064.6	38.93
036.0	000.1050	0047.9	007.2	162.7	001.7418	0069.2	064.7	38.91
037.0	000.1050	0048.0	007.2	162.6	001.7418	0069.2	064.8	38.88
038.0	000.1050	0048.1	007.2	162.6	001.7418	0069.2	064.9	38.86
039.0	000.1050	0048.4	007.2	162.5	001.7418	0069.3	065.0	38.84
040.0	000.1050	0048.4	007.2	162.4	001.7418	0069.3	065.1	38.81
041.0	000.1050	0048.1	007.2	162.4	001.7418	0069.3	065.2	38.78
042.0	000.1050	0048.0	007.2	162.3	001.7418	0069.4	065.4	38.75
043.0	000.1050	0047.8	007.2	162.3	001.7418	0069.4	065.5	38.72
044.0	000.1050	0048.0	007.2	162.2	001.7418	0069.5	065.6	38.70
045.0	000.1050	0048.2	007.2	162.2	001.7418	0069.5	065.7	38.67
046.0	000.1050	0048.2	007.2	162.1	001.7418	0069.5	065.8	38.64
047.0	000.1050	0047.9	007.2	162.1	001.7418	0069.5	065.9	38.61

Exhibit 18.6 - Protection to CIMX-FM - Windsor, ON, CA

Exhibit 18.6 - Protection to CIMX-FM - Windsor, ON, CA
Regents Of The University Of Michigan

FMCommander Single Allocation Study - 07-30-2013 - NED 03 SEC
WCBN-FM.C's Overlaps (In= 41.62 km, Out= -19.2 km)

WCBN-FM.C CH 202 A DA

Lat= 42 16 37.0, Lng= 83 44 07.0

2.9 kW 55.9 M HAAT, 320 M COR

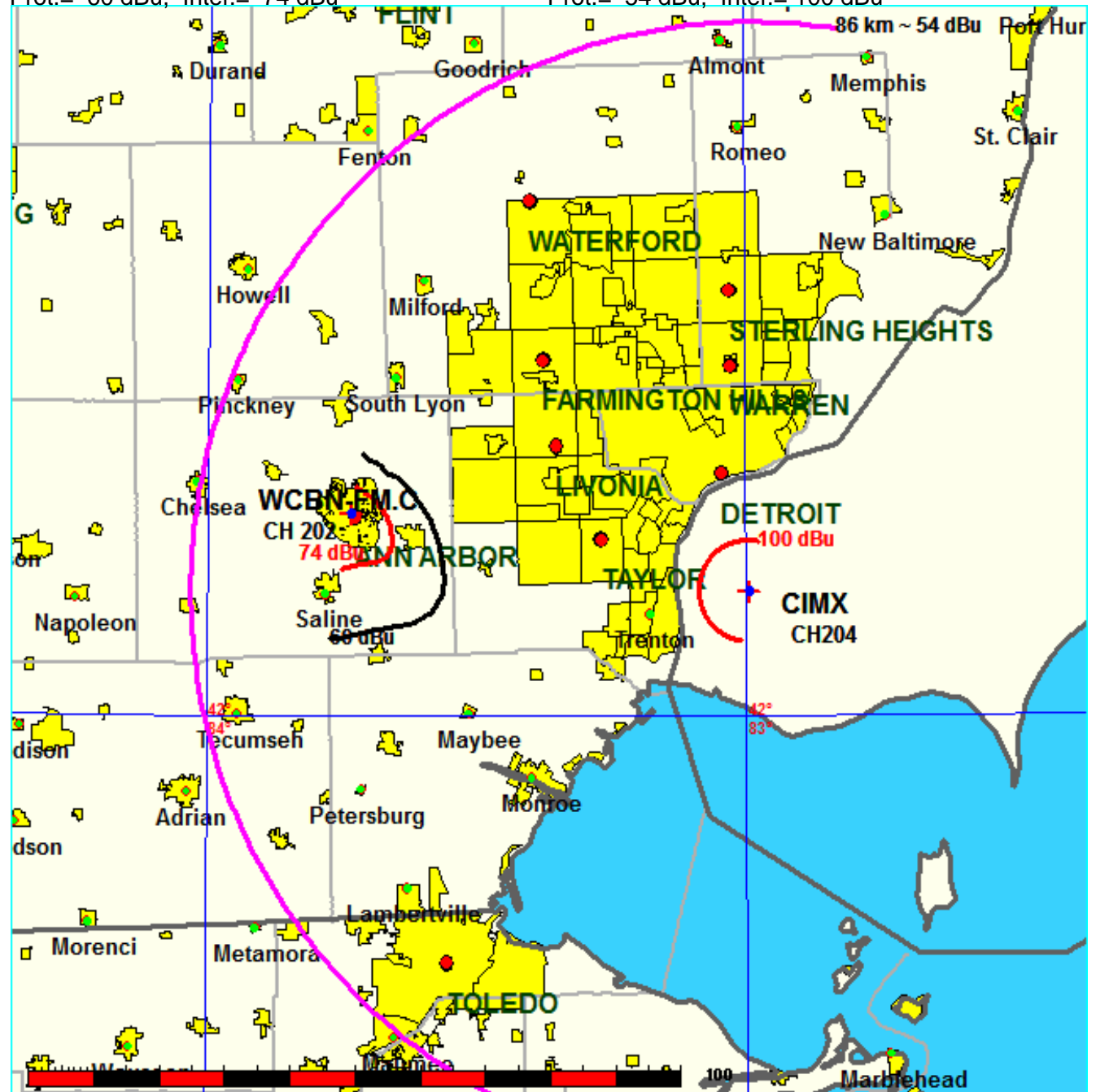
Prot.= 60 dBu, Intef.= 74 dBu

CIMX CH 204 C1

Lat= 42 10 15.0, Lng= 82 59 29.0

100.0 kW 176 M HAAT, 360 M COR

Prot.= 54 dBu, Intef.= 100 dBu



V-Soft Comm ©

Exhibit 18.6 - Protection to CIMX-FM - Windsor, ON, CA

07-30-2013

Terrain Data: NED 03 SEC

FMOver Analysis

WCBN-FM.C

CIMX

Channel = 202A
Max ERP = 2.9 kW
RCAMSL = 320 M
N. Lat. 42 16 37.0
W. Lng. 83 44 07.0
Protected
60 dBu

Channel = 204C1
Max ERP = 100 kW
RCAMSL = 360 M
N. Lat. 42 10 15.0
W. Lng. 82 59 29.0
Interfering
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
041.0	000.2130	0043.3	008.2	288.1	100.0000	0183.3	058.7	65.04	
042.0	000.2130	0043.4	008.2	288.0	100.0000	0183.3	058.6	65.09	
043.0	000.2130	0043.5	008.2	288.0	100.0000	0183.3	058.4	65.14	
044.0	000.2130	0043.7	008.2	287.9	100.0000	0183.3	058.3	65.19	
045.0	000.2130	0043.8	008.2	287.9	100.0000	0183.3	058.2	65.24	
046.0	000.2130	0044.6	008.3	287.9	100.0000	0183.3	058.0	65.30	
047.0	000.2130	0045.5	008.4	287.9	100.0000	0183.3	057.8	65.37	
048.0	000.2130	0046.3	008.5	287.9	100.0000	0183.3	057.6	65.43	
049.0	000.2130	0047.2	008.6	287.9	100.0000	0183.3	057.5	65.50	
050.0	000.2130	0048.0	008.7	287.9	100.0000	0183.3	057.3	65.56	
051.0	000.2109	0048.9	008.8	287.9	100.0000	0183.3	057.1	65.62	
052.0	000.2089	0049.7	008.8	287.8	100.0000	0183.3	057.0	65.68	
053.0	000.2069	0050.6	008.9	287.8	100.0000	0183.3	056.8	65.74	
054.0	000.2049	0051.4	008.9	287.7	100.0000	0183.3	056.6	65.80	
055.0	000.2029	0052.3	009.0	287.7	100.0000	0183.3	056.5	65.86	
056.0	000.2009	0053.1	009.1	287.6	100.0000	0183.3	056.3	65.92	
057.0	000.1989	0054.0	009.1	287.6	100.0000	0183.3	056.2	65.98	
058.0	000.1969	0054.8	009.2	287.5	100.0000	0183.3	056.0	66.04	
059.0	000.1950	0055.7	009.2	287.4	100.0000	0183.3	055.9	66.10	
060.0	000.1930	0056.5	009.3	287.4	100.0000	0183.3	055.7	66.16	
061.0	000.1920	0057.4	009.3	287.3	100.0000	0183.3	055.5	66.22	
062.0	000.1909	0058.2	009.4	287.2	100.0000	0183.3	055.4	66.28	
063.0	000.1899	0059.1	009.4	287.1	100.0000	0183.3	055.2	66.33	
064.0	000.1889	0059.9	009.5	287.1	100.0000	0183.3	055.1	66.39	
065.0	000.1878	0060.8	009.5	287.0	100.0000	0183.3	054.9	66.45	
066.0	000.1868	0061.6	009.6	286.9	100.0000	0183.3	054.8	66.50	
067.0	000.1858	0062.5	009.6	286.8	100.0000	0183.3	054.7	66.56	
068.0	000.1847	0063.3	009.7	286.6	100.0000	0183.3	054.5	66.61	
069.0	000.1837	0064.2	009.7	286.5	100.0000	0183.3	054.4	66.66	
070.0	000.1827	0065.0	009.8	286.4	100.0000	0183.3	054.2	66.72	
071.0	000.1837	0065.9	009.8	286.3	100.0000	0183.3	054.1	66.78	
072.0	000.1847	0066.7	009.9	286.2	100.0000	0183.3	053.9	66.84	
073.0	000.1858	0067.6	010.0	286.1	100.0000	0183.3	053.8	66.90	
074.0	000.1868	0068.4	010.0	286.0	100.0000	0183.3	053.6	66.95	
075.0	000.1878	0069.3	010.1	285.9	100.0000	0183.3	053.5	67.01	
076.0	000.1889	0070.1	010.2	285.7	100.0000	0183.3	053.3	67.07	

Exhibit 18.6 - Protection to CIMX-FM - Windsor, ON, CA

FMOver Analysis

Page # 2

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
077.0	000.1899	0071.0	010.3	285.6	100.0000	0183.3	053.2	67.13
078.0	000.1909	0071.8	010.3	285.5	100.0000	0183.3	053.0	67.18
079.0	000.1920	0072.7	010.4	285.3	100.0000	0183.3	052.9	67.24
080.0	000.1930	0073.5	010.5	285.2	100.0000	0183.3	052.7	67.29
081.0	000.1977	0074.4	010.6	285.0	100.0000	0183.3	052.6	67.36
082.0	000.2024	0075.2	010.7	284.9	100.0000	0183.3	052.4	67.43
083.0	000.2072	0076.1	010.8	284.8	100.0000	0183.3	052.2	67.50
084.0	000.2120	0076.9	010.9	284.6	100.0000	0183.3	052.0	67.57
085.0	000.2169	0077.8	011.0	284.4	100.0000	0183.3	051.9	67.63
086.0	000.2219	0078.7	011.2	284.3	100.0000	0183.3	051.7	67.70
087.0	000.2269	0079.5	011.3	284.1	100.0000	0183.3	051.5	67.76
088.0	000.2319	0080.4	011.4	283.9	100.0000	0183.3	051.4	67.83
089.0	000.2370	0081.2	011.5	283.8	100.0000	0183.3	051.2	67.89
090.0	000.2422	0082.1	011.6	283.6	100.0000	0183.3	051.0	67.95
091.0	000.2548	0082.0	011.8	283.4	100.0000	0183.3	050.9	68.02
092.0	000.2677	0082.0	011.9	283.2	100.0000	0183.3	050.7	68.09
093.0	000.2809	0082.0	012.0	283.0	100.0000	0183.3	050.5	68.15
094.0	000.2944	0082.0	012.2	282.8	100.0000	0183.3	050.3	68.22
095.0	000.3082	0082.0	012.3	282.5	100.0000	0183.3	050.2	68.28
096.0	000.3224	0082.0	012.4	282.3	100.0000	0183.3	050.0	68.34
097.0	000.3368	0082.0	012.6	282.1	100.0000	0183.3	049.9	68.40
098.0	000.3516	0082.0	012.7	281.8	100.0000	0183.3	049.7	68.45
099.0	000.3667	0081.9	012.8	281.6	100.0000	0183.3	049.6	68.51
100.0	000.3821	0081.9	012.9	281.3	100.0000	0183.3	049.5	68.56
101.0	000.4022	0081.9	013.1	281.1	100.0000	0183.3	049.3	68.62
102.0	000.4227	0081.9	013.3	280.8	100.0000	0183.3	049.2	68.68
103.0	000.4438	0081.9	013.4	280.5	100.0000	0183.3	049.0	68.74
104.0	000.4654	0081.9	013.6	280.2	100.0000	0183.3	048.9	68.79
105.0	000.4875	0081.9	013.7	279.9	100.0000	0183.3	048.7	68.84
106.0	000.5101	0081.9	013.9	279.6	100.0000	0183.3	048.6	68.89
107.0	000.5332	0081.8	014.0	279.3	100.0000	0183.3	048.5	68.93
108.0	000.5569	0081.8	014.2	279.0	100.0000	0183.3	048.4	68.98
109.0	000.5810	0081.8	014.3	278.7	100.0000	0183.3	048.3	69.02
110.0	000.6057	0081.8	014.5	278.4	100.0000	0183.3	048.2	69.05
111.0	000.6376	0081.8	014.7	278.0	100.0000	0183.3	048.1	69.11
112.0	000.6704	0081.8	014.9	277.7	100.0000	0183.3	047.9	69.15
113.0	000.7040	0081.8	015.0	277.3	100.0000	0183.3	047.8	69.20
114.0	000.7384	0081.8	015.2	276.9	100.0000	0183.3	047.7	69.24
115.0	000.7736	0081.7	015.4	276.5	100.0000	0183.3	047.6	69.28
116.0	000.8097	0081.7	015.6	276.2	100.0000	0183.3	047.5	69.31
117.0	000.8466	0081.7	015.8	275.8	100.0000	0183.3	047.5	69.34
118.0	000.8843	0081.7	016.0	275.4	100.0000	0183.3	047.4	69.37
119.0	000.9228	0081.7	016.2	275.0	100.0000	0183.3	047.3	69.40
120.0	000.9622	0081.7	016.4	274.6	100.0000	0183.3	047.3	69.42
121.0	001.0126	0081.7	016.6	274.1	100.0000	0183.3	047.2	69.45
122.0	001.0643	0081.7	016.9	273.7	100.0000	0183.3	047.1	69.48
123.0	001.1173	0081.6	017.1	273.2	100.0000	0183.3	047.1	69.50
124.0	001.1716	0081.6	017.3	272.8	100.0000	0183.3	047.0	69.52
125.0	001.2271	0081.6	017.5	272.3	100.0000	0183.3	047.0	69.53
126.0	001.2840	0081.6	017.7	271.8	100.0000	0183.3	047.0	69.53
127.0	001.3421	0081.6	018.0	271.4	100.0000	0183.3	047.0	69.52

Exhibit 18.6 - Protection to CIMX-FM - Windsor, ON, CA

FMOver Analysis

Page # 3

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
128.0	001.4016	0081.6	018.2	270.9	100.0000	0183.3	047.0	69.52
129.0	001.4623	0081.6	018.4	270.5	100.0000	0183.3	047.1	69.50
130.0	001.5243	0081.6	018.6	270.0	100.0000	0183.3	047.1	69.48
131.0	001.5628	0081.6	018.7	269.6	100.0000	0183.3	047.2	69.43
132.0	001.6018	0081.5	018.8	269.2	100.0000	0183.3	047.4	69.37
133.0	001.6413	0081.5	018.9	268.8	100.0000	0183.2	047.5	69.31
134.0	001.6812	0081.5	019.0	268.5	100.0000	0183.2	047.7	69.25
135.0	001.7216	0081.5	019.1	268.1	100.0000	0183.2	047.8	69.19
136.0	001.7626	0081.3	019.2	267.7	100.0000	0183.1	048.0	69.11
137.0	001.8039	0081.0	019.3	267.4	100.0000	0183.1	048.2	69.03
138.0	001.8458	0080.7	019.4	267.1	100.0000	0183.1	048.4	68.95
139.0	001.8882	0080.5	019.5	266.8	100.0000	0183.1	048.7	68.86
140.0	001.9310	0080.2	019.6	266.5	100.0000	0183.0	048.9	68.77
141.0	001.9310	0080.0	019.5	266.2	100.0000	0183.0	049.2	68.66
142.0	001.9310	0079.7	019.5	266.1	100.0000	0183.0	049.5	68.54
143.0	001.9310	0079.5	019.5	265.9	100.0000	0183.0	049.8	68.43
144.0	001.9310	0079.2	019.4	265.7	100.0000	0183.0	050.1	68.31
145.0	001.9310	0079.0	019.4	265.5	100.0000	0183.0	050.4	68.19
146.0	001.9310	0078.7	019.4	265.4	100.0000	0183.0	050.7	68.07
147.0	001.9310	0078.5	019.3	265.2	100.0000	0182.9	051.0	67.95
148.0	001.9310	0078.2	019.3	265.1	100.0000	0182.9	051.3	67.82
149.0	001.9310	0078.0	019.3	264.9	100.0000	0182.9	051.6	67.70
150.0	001.9310	0077.7	019.2	264.8	100.0000	0182.9	052.0	67.58
151.0	001.9116	0077.5	019.2	264.8	100.0000	0182.9	052.3	67.45
152.0	001.8924	0077.2	019.1	264.7	100.0000	0182.9	052.6	67.32
153.0	001.8732	0077.0	019.0	264.6	100.0000	0182.9	053.0	67.19
154.0	001.8541	0076.7	018.9	264.6	100.0000	0182.9	053.3	67.06
155.0	001.8352	0076.5	018.8	264.6	100.0000	0182.9	053.6	66.93
156.0	001.8163	0076.2	018.7	264.5	100.0000	0182.9	054.0	66.80
157.0	001.7975	0076.0	018.7	264.5	100.0000	0182.9	054.3	66.67
158.0	001.7789	0075.7	018.6	264.5	100.0000	0182.9	054.7	66.54
159.0	001.7603	0075.5	018.5	264.5	100.0000	0182.9	055.0	66.41
160.0	001.7418	0075.2	018.4	264.5	100.0000	0182.9	055.3	66.29

Exhibit 18.6 - Protection to CIMX-FM - Windsor, ON, CA

07-30-2013

Terrain Data: NED 03 SEC

FMOVer Analysis

CIMX

WCBN-FM.C

Channel = 204C1

Max ERP = 100 kW

RCAMSL = 360 M

N. Lat. 42 10 15.0

W. Lng. 82 59 29.0

Protected

54 dBu

Channel = 202A

Max ERP = 2.9 kW

RCAMSL = 320 M

N. Lat. 42 16 37.0

W. Lng. 83 44 07.0

Interfering

74 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
221.0	100.0000	0179.1	075.4	170.1	001.7447	0072.7	069.8	37.77	
222.0	100.0000	0179.2	075.4	170.6	001.7601	0072.5	068.8	38.07	
223.0	100.0000	0179.4	075.5	171.3	001.7805	0072.4	067.8	38.38	
224.0	100.0000	0179.6	075.5	172.0	001.8012	0072.2	066.8	38.70	
225.0	100.0000	0179.7	075.5	172.8	001.8221	0072.0	065.8	39.02	
226.0	100.0000	0179.8	075.5	173.5	001.8433	0071.8	064.7	39.34	
227.0	100.0000	0179.9	075.5	174.2	001.8648	0071.7	063.7	39.67	
228.0	100.0000	0179.9	075.5	174.9	001.8866	0071.5	062.6	40.01	
229.0	100.0000	0180.0	075.5	175.7	001.9089	0071.3	061.6	40.36	
230.0	100.0000	0180.1	075.5	176.4	001.9315	0071.1	060.5	40.72	
231.0	100.0000	0180.2	075.5	177.2	001.9545	0070.9	059.5	41.09	
232.0	100.0000	0180.3	075.5	177.9	001.9779	0070.7	058.4	41.46	
233.0	100.0000	0180.3	075.6	178.7	002.0018	0070.5	057.3	41.85	
234.0	100.0000	0180.4	075.6	179.5	002.0261	0070.3	056.3	42.24	
235.0	100.0000	0180.5	075.6	180.3	002.0654	0070.0	055.2	42.65	
236.0	100.0000	0180.6	075.6	181.1	002.1297	0069.5	054.1	43.10	
237.0	100.0000	0180.7	075.6	181.9	002.1961	0069.1	053.0	43.55	
238.0	100.0000	0180.7	075.6	182.8	002.2645	0068.6	052.0	44.00	
239.0	100.0000	0180.8	075.6	183.6	002.3352	0068.1	050.9	44.45	
240.0	100.0000	0180.9	075.6	184.5	002.4082	0067.6	049.8	44.89	
241.0	100.0000	0181.0	075.6	185.4	002.4838	0067.0	048.7	45.33	
242.0	100.0000	0181.1	075.6	186.3	002.5621	0066.5	047.6	45.77	
243.0	100.0000	0181.2	075.6	187.2	002.6433	0066.0	046.5	46.21	
244.0	100.0000	0181.2	075.6	188.1	002.7276	0065.4	045.4	46.66	
245.0	100.0000	0181.3	075.6	189.1	002.8151	0064.8	044.4	47.12	
246.0	100.0000	0181.4	075.7	190.1	002.9000	0064.3	043.3	47.57	
247.0	100.0000	0181.5	075.7	191.1	002.9000	0063.7	042.2	47.90	
248.0	100.0000	0181.6	075.7	192.1	002.9000	0063.1	041.1	48.24	
249.0	100.0000	0181.6	075.7	193.2	002.9000	0062.4	040.0	48.58	
250.0	100.0000	0181.7	075.7	194.3	002.9000	0061.8	038.9	48.93	
251.0	100.0000	0181.8	075.7	195.4	002.9000	0061.1	037.8	49.28	
252.0	100.0000	0181.9	075.7	196.6	002.9000	0060.4	036.7	49.64	
253.0	100.0000	0182.0	075.7	197.8	002.9000	0059.7	035.6	49.99	

Exhibit 18.6 - Protection to CIMX-FM - Windsor, ON, CA

FMOver Analysis

Page # 5

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
254.0	100.0000	0182.0	075.7	199.0	002.9000	0059.0	034.6	50.35
255.0	100.0000	0182.1	075.7	200.3	002.9000	0058.2	033.5	50.70
256.0	100.0000	0182.2	075.7	201.7	002.9000	0057.4	032.4	51.05
257.0	100.0000	0182.3	075.7	203.1	002.9000	0056.6	031.4	51.41
258.0	100.0000	0182.4	075.8	204.6	002.9000	0055.7	030.3	51.81
259.0	100.0000	0182.4	075.8	206.1	002.9000	0054.8	029.2	52.23
260.0	100.0000	0182.5	075.8	207.7	002.9000	0053.9	028.2	52.69
261.0	100.0000	0182.6	075.8	209.4	002.9000	0052.9	027.2	53.17
262.0	100.0000	0182.7	075.8	211.3	002.9000	0051.8	026.1	53.66
263.0	100.0000	0182.8	075.8	213.2	002.9000	0050.7	025.1	54.15
264.0	100.0000	0182.8	075.8	215.2	002.9000	0049.5	024.1	54.65
265.0	100.0000	0182.9	075.8	217.4	002.9000	0048.2	023.1	55.14
266.0	100.0000	0183.0	075.8	219.7	002.9000	0046.8	022.2	55.61
267.0	100.0000	0183.1	075.8	222.1	002.9000	0045.4	021.2	56.05
268.0	100.0000	0183.2	075.8	224.8	002.9000	0043.8	020.3	56.46
269.0	100.0000	0183.2	075.8	227.6	002.9000	0043.8	019.4	57.17
270.0	100.0000	0183.3	075.8	230.7	002.9000	0043.9	018.6	57.90
271.0	100.0000	0183.3	075.8	234.0	002.9000	0044.0	017.8	58.61
272.0	100.0000	0183.3	075.8	237.5	002.9000	0044.1	017.0	59.30
273.0	100.0000	0183.3	075.8	241.4	002.9000	0044.3	016.3	59.95
274.0	100.0000	0183.3	075.8	245.5	002.9000	0044.4	015.6	60.55
275.0	100.0000	0183.3	075.8	249.9	002.9000	0044.6	015.0	61.11
276.0	100.0000	0183.3	075.8	254.6	002.9000	0044.7	014.5	61.55
277.0	100.0000	0183.3	075.8	259.6	002.9000	0044.9	014.1	62.12
278.0	100.0000	0183.3	075.8	264.9	002.9000	0045.1	013.7	62.60
279.0	100.0000	0183.3	075.8	270.4	002.9000	0045.2	013.5	62.95
280.0	100.0000	0183.3	075.8	276.0	002.9000	0044.9	013.4	63.08
281.0	100.0000	0183.3	075.8	281.7	002.9000	0044.6	013.3	63.06
282.0	100.0000	0183.3	075.8	287.4	002.9000	0044.2	013.4	62.89
283.0	100.0000	0183.3	075.8	292.9	002.9000	0043.9	013.6	62.58
284.0	100.0000	0183.3	075.8	298.3	002.9000	0043.6	013.9	62.14
285.0	100.0000	0183.3	075.8	303.5	002.9000	0043.3	014.2	61.60
286.0	100.0000	0183.3	075.8	308.4	002.9000	0043.0	014.7	60.98
287.0	100.0000	0183.3	075.8	313.0	002.9000	0042.8	015.3	60.52
288.0	100.0000	0183.3	075.8	317.3	002.9000	0042.4	015.9	59.90
289.0	100.0000	0183.3	075.8	321.3	002.8618	0042.0	016.6	59.17
290.0	100.0000	0183.3	075.8	325.0	002.7537	0041.7	017.3	58.29
291.0	100.0000	0183.3	075.8	328.5	002.6554	0041.3	018.1	57.38
292.0	100.0000	0183.3	075.8	331.6	002.4386	0041.0	018.9	56.25
293.0	100.0000	0183.3	075.8	334.6	002.1414	0040.7	019.8	54.91
294.0	100.0000	0183.3	075.8	337.3	001.8826	0040.5	020.7	53.56
295.0	100.0000	0183.3	075.8	339.9	001.6567	0040.2	021.6	52.22
296.0	100.0000	0183.3	075.8	342.3	001.4969	0040.0	022.6	51.00
297.0	100.0000	0183.3	075.8	344.5	001.3562	0039.7	023.5	49.80
298.0	100.0000	0183.3	075.8	346.6	001.2305	0039.5	024.5	48.62
299.0	100.0000	0183.3	075.8	348.6	001.1180	0039.3	025.5	47.48
300.0	100.0000	0183.3	075.8	350.4	001.0215	0039.2	026.5	46.38
301.0	100.0000	0183.3	075.8	352.2	000.9479	0039.0	027.6	45.38
302.0	100.0000	0183.3	075.8	353.9	000.8807	0038.8	028.6	44.42
303.0	100.0000	0183.3	075.8	355.4	000.8191	0038.7	029.6	43.50
304.0	100.0000	0183.3	075.8	357.0	000.7625	0038.5	030.7	42.63

Exhibit 18.6 - Protection to CIMX-FM - Windsor, ON, CA

FMOver Analysis

Page # 6

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
305.0	100.0000	0183.3	075.8	358.4	000.7103	0038.4	031.8	41.82
306.0	100.0000	0183.3	075.8	359.8	000.6621	0038.2	032.8	41.05
307.0	100.0000	0183.3	075.8	001.1	000.6254	0038.3	033.9	40.40
308.0	100.0000	0183.3	075.8	002.4	000.5926	0038.5	035.0	39.78
309.0	100.0000	0183.3	075.8	003.6	000.5618	0038.7	036.0	39.17
310.0	100.0000	0183.3	075.8	004.8	000.5328	0038.8	037.1	38.57
311.0	100.0000	0183.3	075.8	005.9	000.5056	0038.9	038.2	37.98
312.0	100.0000	0183.3	075.8	007.0	000.4799	0039.1	039.3	37.40
313.0	100.0000	0183.3	075.8	008.1	000.4556	0039.2	040.4	36.83
314.0	100.0000	0183.3	075.8	009.2	000.4326	0039.3	041.5	36.27
315.0	100.0000	0183.3	075.8	010.2	000.4115	0039.5	042.6	35.73
316.0	100.0000	0183.1	075.8	011.2	000.3943	0039.6	043.6	35.23
317.0	100.0000	0182.8	075.8	012.2	000.3779	0039.7	044.7	34.75
318.0	100.0000	0182.5	075.8	013.2	000.3622	0039.8	045.8	34.28
319.0	100.0000	0182.3	075.7	014.1	000.3472	0040.0	046.8	33.82
320.0	100.0000	0182.0	075.7	015.0	000.3329	0040.1	047.9	33.38
321.0	100.0000	0181.8	075.7	015.9	000.3191	0040.2	049.0	32.94
322.0	100.0000	0181.5	075.7	016.8	000.3059	0040.3	050.0	32.50
323.0	100.0000	0181.2	075.6	017.7	000.2932	0040.4	051.1	32.05
324.0	100.0000	0181.0	075.6	018.6	000.2810	0040.5	052.2	31.61
325.0	100.0000	0180.7	075.6	019.4	000.2692	0040.6	053.2	31.17
326.0	100.0000	0180.5	075.6	020.2	000.2612	0040.7	054.3	30.78
327.0	100.0000	0180.2	075.5	021.0	000.2621	0040.8	055.3	30.53
328.0	100.0000	0179.9	075.5	021.8	000.2629	0040.9	056.4	30.29
329.0	100.0000	0179.7	075.5	022.6	000.2638	0041.0	057.4	30.05
330.0	100.0000	0179.4	075.5	023.4	000.2646	0041.1	058.5	29.81
331.0	100.0000	0179.2	075.4	024.2	000.2654	0041.2	059.5	29.58
332.0	100.0000	0178.9	075.4	025.0	000.2662	0041.3	060.5	29.35
333.0	100.0000	0178.6	075.4	025.7	000.2670	0041.4	061.6	29.12
334.0	100.0000	0178.4	075.4	026.5	000.2678	0041.5	062.6	28.90
335.0	100.0000	0178.1	075.3	027.2	000.2686	0041.6	063.6	28.69
336.0	100.0000	0177.9	075.3	027.9	000.2693	0041.7	064.7	28.48
337.0	100.0000	0177.6	075.3	028.6	000.2701	0041.8	065.7	28.28
338.0	100.0000	0177.3	075.3	029.4	000.2709	0041.9	066.7	28.08
339.0	100.0000	0177.1	075.2	030.1	000.2711	0041.9	067.7	27.87
340.0	100.0000	0176.8	075.2	030.8	000.2668	0042.0	068.7	27.59

Exhibit 18.7 - Tabulation of Proposed Directional Antenna Pattern

WCBN-FM. C

07-31-2013

RMS(V)= .768

Graph is Relative Field

Azi	Field	dBk	kW
000	0.475	-01.842	0.654
010	0.378	-03.826	0.414
020	0.300	-05.834	0.261
030	0.306	-05.662	0.272
040	0.271	-06.717	0.213
050	0.271	-06.717	0.213
060	0.258	-07.144	0.193
070	0.251	-07.383	0.183
080	0.258	-07.144	0.193
090	0.289	-06.158	0.242
100	0.363	-04.178	0.382
110	0.457	-02.178	0.606
120	0.576	-00.168	0.962
130	0.725	01.831	1.524
140	0.816	02.858	1.931
150	0.816	02.858	1.931
160	0.775	02.410	1.742
170	0.775	02.410	1.742
180	0.839	03.099	2.041
190	1.000	04.624	2.900
200	1.000	04.624	2.900
210	1.000	04.624	2.900
220	1.000	04.624	2.900
230	1.000	04.624	2.900
240	1.000	04.624	2.900
250	1.000	04.624	2.900
260	1.000	04.624	2.900
270	1.000	04.624	2.900
280	1.000	04.624	2.900
290	1.000	04.624	2.900
300	1.000	04.624	2.900
310	1.000	04.624	2.900
320	1.000	04.624	2.900
330	0.949	04.169	2.612
340	0.754	02.171	1.649
350	0.599	00.173	1.041

