

# Exhibit 11.1

## Description of Proposed Antenna System

### DAYTIME ANTENNA SYSTEM

1. The daytime/nighttime antenna system consists of two (2) vertical, Insulated, uniform cross-section, guyed steel towers. The towers stand 82.4 meters above 0.8 meter base piers and insulators for overall heights of 83.2 meters AGL. Including aviation beacons (0.9 meters), both towers stand at 84.1 meters AGL. Given the ground elevation of 249.9 meters AMSL, the overall heights stand at 334.0 meters AMSL.
2. The daytime/nighttime antenna system operates on 910 kHz and is arranged in the form of a quarter wave spaced two tower east-west array. The Towers are spaced 82.4 meters (270.2 ft) or 90.0° apart on a line bearing 88.0°T.
3. The existing ground system consists of 120 buried copper radials of #10 AWG soft drawn copper wire, running 82.4 meters (270.2 ft) in length, about the base of each tower excepting where shortened to terminate at the four inch copper transverse straps running midway between the towers or at the property boundaries.
4. The proposed daytime antenna system theoretical parameters are as follows:

Call: WGTO.P		CASSOPOLIS, MI, US				Hours: D					
Freq: 910 kHz		Lat: 41-57-14 N				Lng: 086-00-59 W		Power: 5.7 kW			
Theo RMS: 748.83 mV/m @ 1km @ 5.7 kW											
#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0
2	0.710	109.7	90.0	88.0	90.0	0	0	0.0	0.0	0.0	0.0
-----											
Theoretical RMS: 748.83 mV/m@1km					Erss = 812.32 mV/m@1km						
Standard RMS: 786.67 mV/m@1km					Q = 23.87 mV/m@1km						

5. The proposed nighttime antenna system theoretical parameters are as follows:

Call: WGTO.P		CASSOPOLIS, MI, US				Hours: N					
Freq: 910 kHz		Lat: 41-57-14 N				Lng: 086-00-59 W		Power: 0.025 kW			
Theo RMS: 49.59 mV/m @ 1km @ 0.025 kW											
#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0
2	0.710	109.7	90.0	88.0	90.0	0	0	0.0	0.0	0.0	0.0
-----											
Theoretical RMS: 49.59 mV/m@1km					Erss = 53.80 mV/m@1km						
Standard RMS: 53.12 mV/m@1km					Q = 10.00 mV/m@1km						

6. The sampling system for the existing array will continue to conform to §73.68 of the Commission's Rules regarding approved sampling systems.

**Exhibit 11.2 - Copies of Existing Antenna Structure Registration(s)****Registration Detail**

Reg Number	1204670	Status	Granted
File Number	A0099449	Constructed	
FAA Study	86-AGL-2097-OE1	EMI	No
FAA Issue Date	09/30/1986	NEPA	No

**Antenna Structure**

Structure Type 2TA1 - Antenna Tower Array - 1st N = # towers 2nd N = Position of this tower

**Location** (in NAD83 Coordinates)

Lat/Long	41-57-14.1 N 086-01-00.5 W	2.2 miles north of city, on the west side of Okeefe Road
City, State	Cassopolis , MI	
Center of AM Array	41-57-14.2 N 086-00-59.0 W	

**Heights (meters)**

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
249.9	84.1
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
334.0	83.2

**Painting and Lighting Specifications**

FCC Paragraphs 1, 3, 11, 21

.

**Owner & Contact Information**

FRN	0006140008	Licensee ID	L00161631
-----	------------	-------------	-----------

**Owner**

Langford , Larry W  
6036 S. Bishop Street  
Chicago , IL 60636

P: (773)260-3815  
E: wgto910am@aol.com

**Contact**

P:  
E:

.

**Last Action Status**

Status	Granted	Received	10/13/1999
Purpose	New	Entered	10/13/1999
Mode	Interactive		

**Related Applications**

10/13/1999	A0099449 - New (NE)
------------	---------------------

.

**Comments**

**Exhibit 11.2 - Copies of Existing Antenna Structure Registration(s)****Registration Detail**

Reg Number	1204671	Status	Granted
File Number	A0099451	Constructed	
FAA Study	86-AGL-2097-OE2	EMI	No
FAA Issue Date	09/30/1986	NEPA	No

**Antenna Structure**

Structure Type 2TA2 - Antenna Tower Array - 1st N = # towers 2nd N = Position of this tower

**Location** (in NAD83 Coordinates)

Lat/Long	41-57-14.3 N 086-00-57.5 W	2.2 miles north of city, on west side of Okeefe Road
City, State	Cassopolis , MI	
Center of AM Array	41-57-14.2 N 086-00-59.0 W	

**Heights (meters)**

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
249.9	84.1
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
334.0	83.2

**Painting and Lighting Specifications**

FCC Paragraphs 1, 3, 11, 21

.

**Owner & Contact Information**

FRN	0006140008	Licensee ID	L00161631
-----	------------	-------------	-----------

**Owner**

Langford , Larry W  
6036 S. Bishop Street  
Chicago , IL 60636

P: (773)260-3815  
E: wgto910am@aol.com

**Contact**

P:  
E:

.

**Last Action Status**

Status	Granted	Received	10/13/1999
Purpose	New	Entered	10/13/1999
Mode	Interactive		

**Related Applications**

10/13/1999	A0099451 - New (NE)
------------	---------------------

.

**Comments**

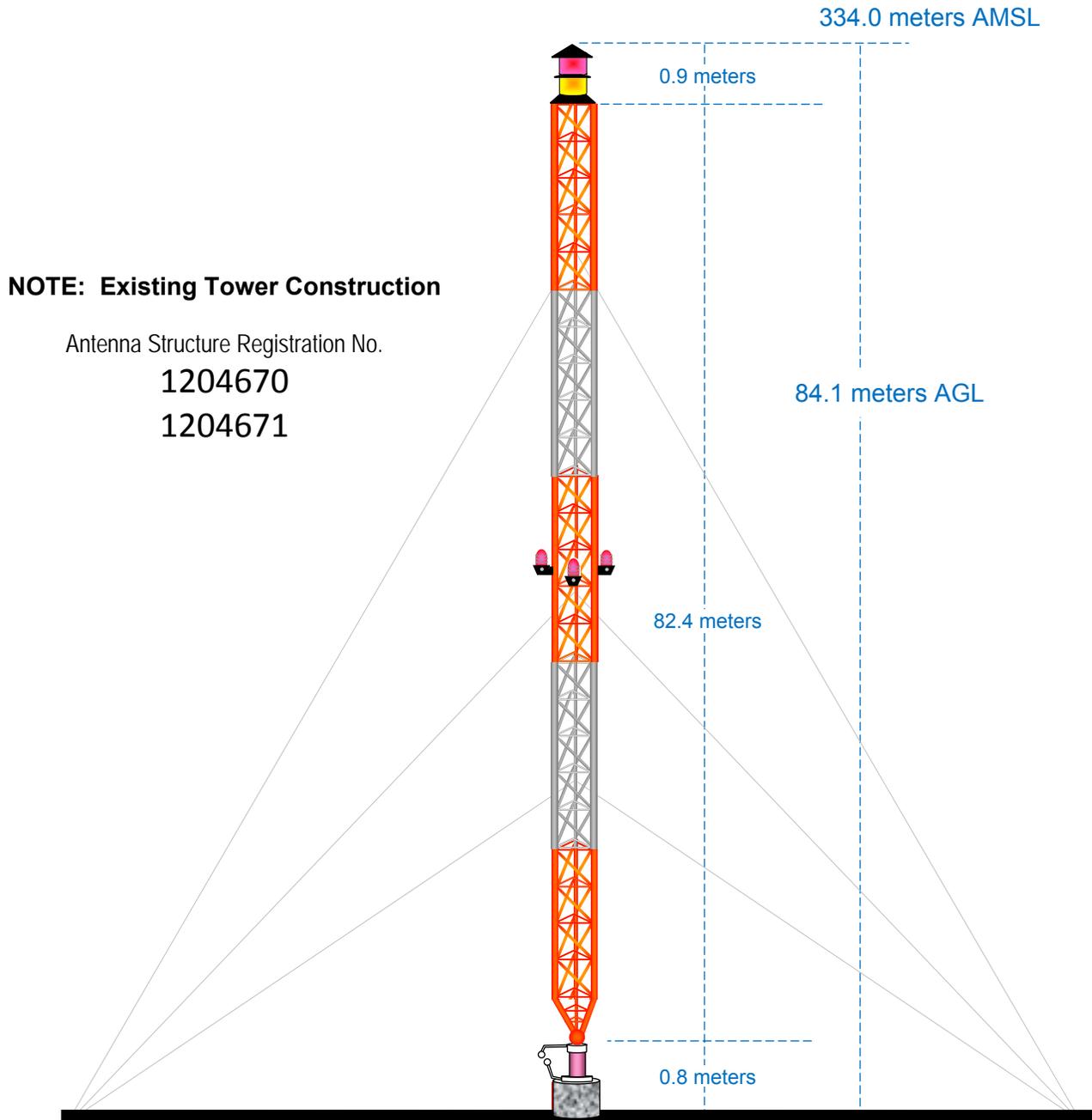
# Exhibit 11.3

## Vertical Plan of Antenna System

The site is located 2.2 miles north of the city on the west side of Okeefe Road, the city of Cassopolis, Cass County, Michigan.

### Site Location (NAD 27)

NL: 41° 57' 14"  
WL: 86° 00' 59"



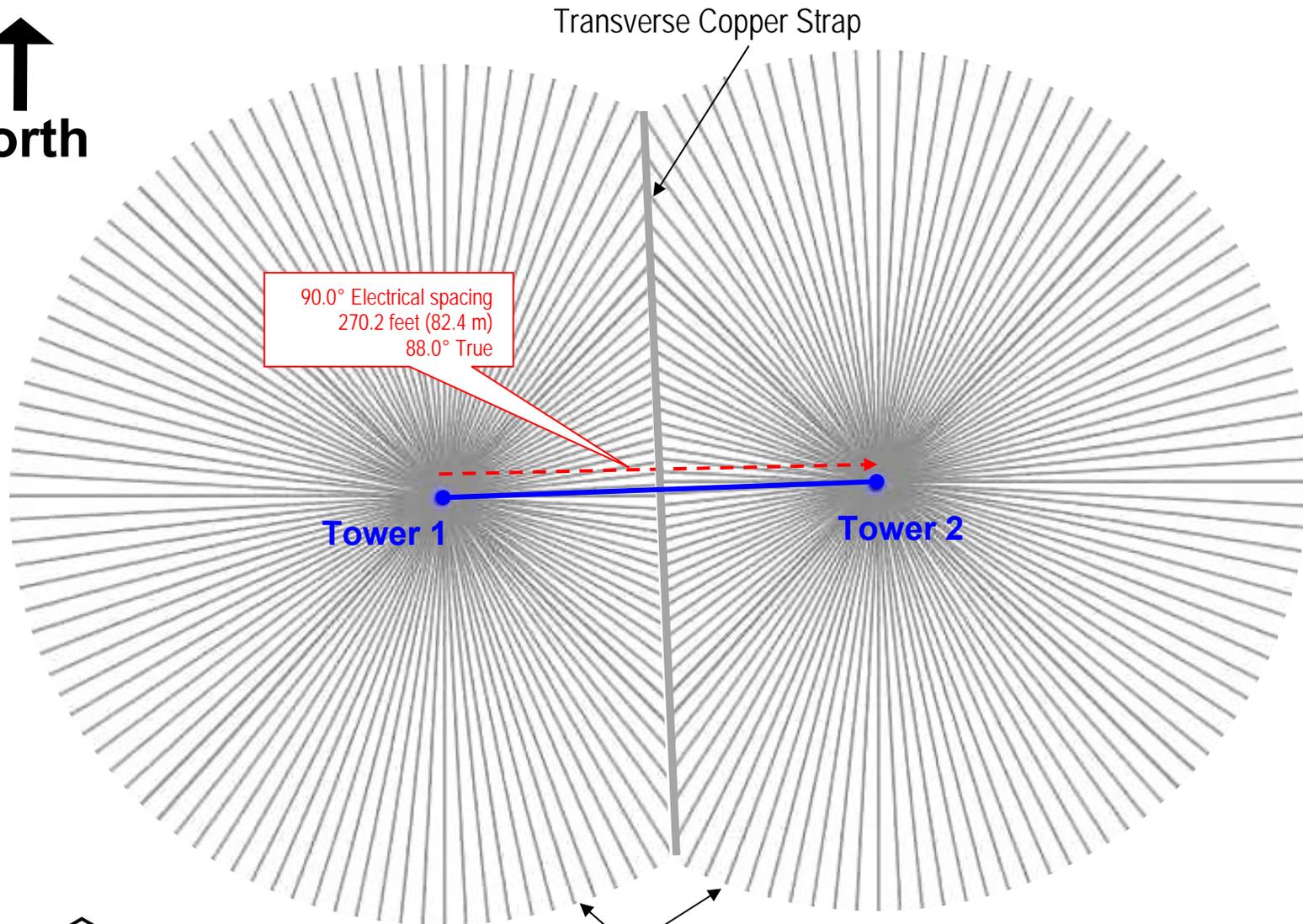
### NOTE: Existing Tower Construction

Antenna Structure Registration No.  
1204670  
1204671

Ground Elevation = 249.9 m AMSL  
Drawing is not to Scale

**MUNN-REESE, INC.**  
Broadcast Engineering Consultants  
Coldwater, MI 49036

# Exhibit 11.4 Horizontal Plat of Antenna Array Ground System



90.0° Electrical spacing  
270.2 feet (82.4 m)  
88.0° True

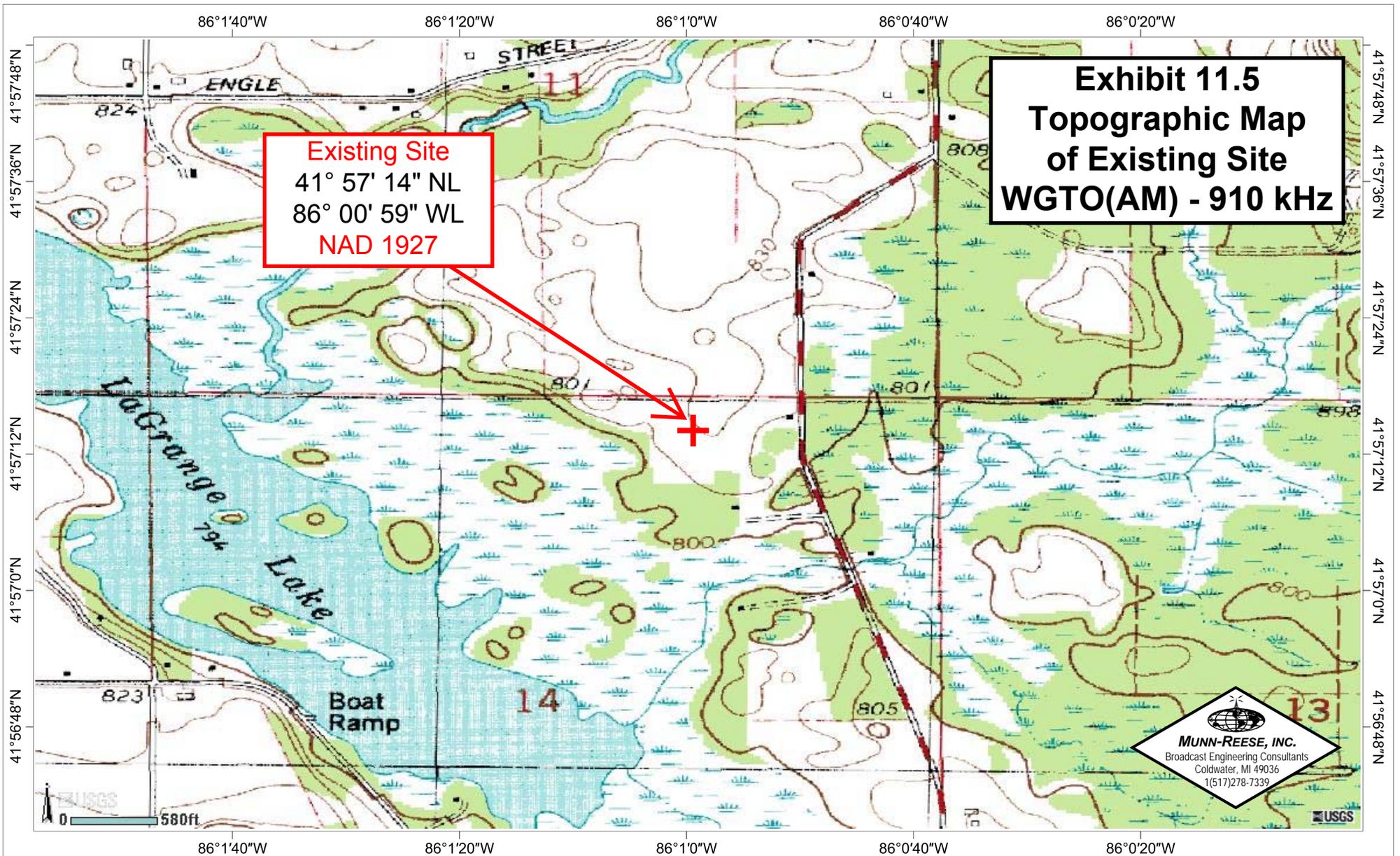
Tower 1

Tower 2

Extent of  
Ground System

The existing ground system consists of 120 buried copper radials, extending 82.4 meters (270.2 ft) in length, about the base of the towers except where shortened to terminate at property boundaries. The material used for the radials is #10 AWG, soft drawn copper wire or equivalent.





**Exhibit 11.5**  
**Topographic Map**  
**of Existing Site**  
**WGTO(AM) - 910 kHz**

**Existing Site**  
 41° 57' 14" NL  
 86° 00' 59" WL  
 NAD 1927



**MUNN-REESE, INC.**  
 Broadcast Engineering Consultants  
 Coldwater, MI 49036  
 1(517)278-7339



41°57'49"N  
 86°1'57.31"W    Map Extent    86°0'0.63"W  
 41°56'39"N



Geographic Coordinate System (WGS84)

86°1'20"W

86°1'10"W

86°1'0"W

86°0'50"W

86°0'40"W

41°57'30"N

41°57'24"N

41°57'18"N

41°57'12"N

41°57'6"N

41°57'0"N

41°57'30"N

41°57'24"N

41°57'18"N

41°57'12"N

41°57'6"N

41°57'0"N

**Exhibit 11.6**  
**Photograph of**  
**Existing Site**  
**WGTO(AM) - 910 kHz**

Existing Site



USGS

290ft

86°1'20"W

86°1'10"W

86°1'0"W

86°0'50"W

86°0'40"W



86°1'30"W

41°57'31"N

Map Extent

86°0'31"W

41°56'56"N



<http://nationalmap.gov/>

Geographic Coordinate System (WGS84)

# Exhibit 11.7a Present Daytime Service Contour Study

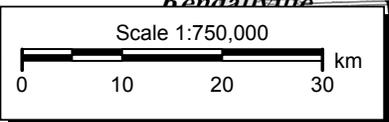
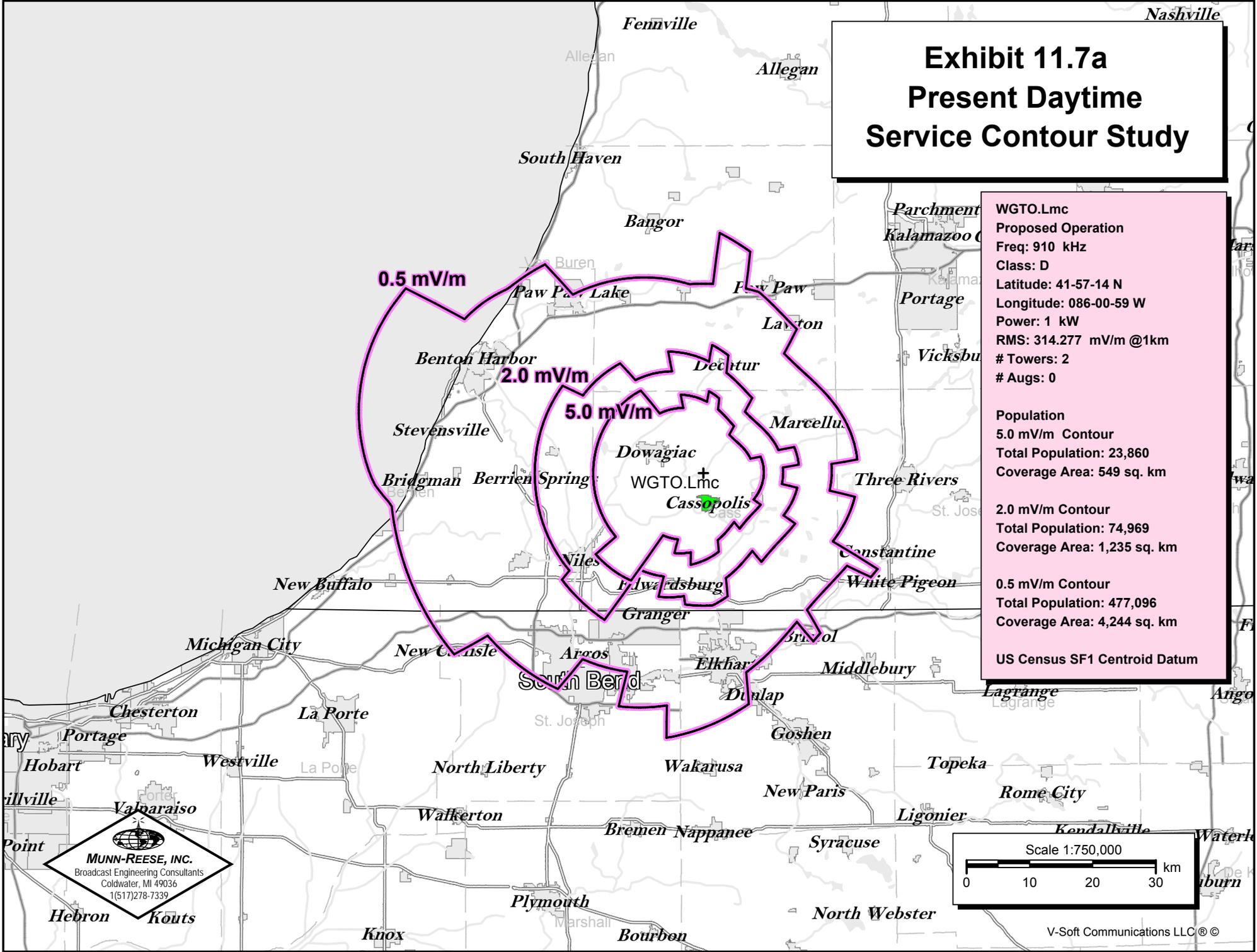
**WGTO.Lmc**  
 Proposed Operation  
 Freq: 910 kHz  
 Class: D  
 Latitude: 41-57-14 N  
 Longitude: 086-00-59 W  
 Power: 1 kW  
 RMS: 314.277 mV/m @1km  
 # Towers: 2  
 # Augs: 0

**Population**  
 5.0 mV/m Contour  
 Total Population: 23,860  
 Coverage Area: 549 sq. km

2.0 mV/m Contour  
 Total Population: 74,969  
 Coverage Area: 1,235 sq. km

0.5 mV/m Contour  
 Total Population: 477,096  
 Coverage Area: 4,244 sq. km

US Census SF1 Centroid Datum



# Exhibit 11.7b Proposed Daytime Service Contour Study

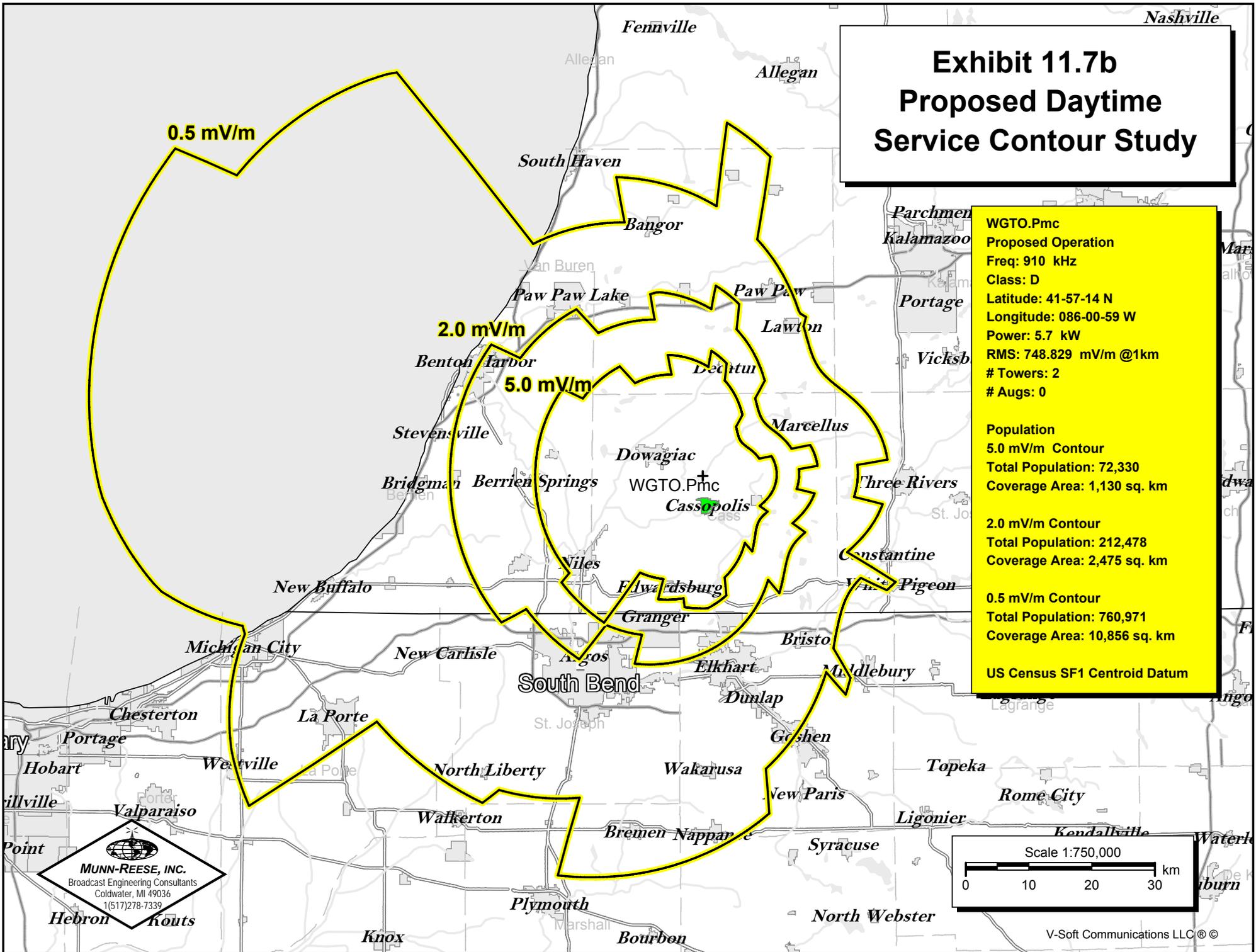
**WGTO.Pmc**  
 Proposed Operation  
 Freq: 910 kHz  
 Class: D  
 Latitude: 41-57-14 N  
 Longitude: 086-00-59 W  
 Power: 5.7 kW  
 RMS: 748.829 mV/m @1km  
 # Towers: 2  
 # Augs: 0

**Population**  
 5.0 mV/m Contour  
 Total Population: 72,330  
 Coverage Area: 1,130 sq. km

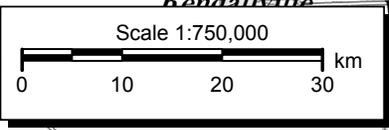
**2.0 mV/m Contour**  
 Total Population: 212,478  
 Coverage Area: 2,475 sq. km

**0.5 mV/m Contour**  
 Total Population: 760,971  
 Coverage Area: 10,856 sq. km

US Census SF1 Centroid Datum



**MUNN-REESE, INC.**  
 Broadcast Engineering Consultants  
 Coldwater, MI 49036  
 1(517)278-7339



**WGTO.Pmc**  
Proposed Daytime Operation  
Freq: 910 kHz  
Class: D  
Latitude: 41-57-14 N  
Longitude: 086-00-59 W  
Power: 5.7 kW  
RMS: 748.829 mV/m @1km  
# Towers: 2  
# Augs: 0

Population  
1.0 V/m "Blanket" Contour  
Total Population: none  
US Census SF1 Centroid Datum

**WGTO.Pmc**  
Proposed Nighttime Operation  
Freq: 910 kHz  
Class: D  
Latitude: 41-57-14 N  
Longitude: 086-00-59 W  
Power: 0.025 kW  
RMS: 49.592 mV/m @1km  
# Towers: 2  
# Augs: 0

1.0 V/m "Blanket" Contour  
Total Population: none  
US Census SF1 Centroid Datum

# Exhibit 11.8 Daytime & Nighttime 1.0 V/m "Blanket" Contour Study

**1.0 V/m Daytime Contour**

**1.0 V/m Nighttime Contour**

