

Application for Modification
Post – Repack Construction Permit
Engineering Exhibit

WPXJ-TV – Batavia, NY

Facility ID: 2325

Licensee "ION MEDIA BUFFALO LICENSE, INC" is currently authorized to operate on Post-Repack DTV channel 24. The Antenna Structure Registration Number is 1059111 with a Latitude of 42° 53' 42.1" N+ and a Longitude of 078° 00' 55.0" W-.

The purpose of this application is to request authority to modify the construction permit (0000034885) to operate from Antenna Structure Registration Number 1045315 with a Latitude of 42° 46' 58.08" N+ and a Longitude of 078° 27' 27" W-. The HAAT is 374.44 m (AGL 311.08 m) with an AMSL of 737.78 m. An ERP of 500 kW will be utilized.

The station is filing this request to change towers because the station is moving to a new tower location. To the extent necessary, the station requests an exemption or waiver of any current freeze on the filing of construction permit modifications as needed to process and approve this application.

Antenna System

An omni-oid top mounted antenna will be utilized. It will be affixed to an existing guyed tower structure and will not increase the overall height of the structure. Any vertical component will not exceed the horizontal pattern in any direction. Elevation and Azimuth patterns are attached.

RF Hazard (Environmental)

Human Exposure measurements were calculated using the OET- 65 equation and the outcome is compliant with FCC 1.1310. Furthermore, the calculation is under 5% of the limit categorically excluding the application from further environmental evaluations.

Calculated Maximum	Calculated Exposure	Percent of Limit
mW/cm ²	mW/cm ²	
0.355	0.002174	0.61%

The station will coordinate with other(s) to comply with access, antenna and/or tower issues related to RF Exposure

Broadcast Facility

§73.616 Interference Caused

A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2018-12-26 indicates that there is no excessive new interference created. This study used cell spacing of 2 km and a profile spacing of 1 km.

§73.622 Maximum ERP and Antenna Height

The application does not exceed the maximum ERP for the specified HAAT.

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§73.623 DTV Allotments

The application does not change the DTV Table of Allotments.

§73.625 Coverage of Principal Community

The application's ERP will sufficiently cover Batavia, New York. RF coverage analysis attached.

§73.1030 Radio, Research and Receiving Locations

A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2018-12-26 indicates that no excessive interference to any "protected" locations. As such, no coordination or notification is required.

§73.1650 International Agreements

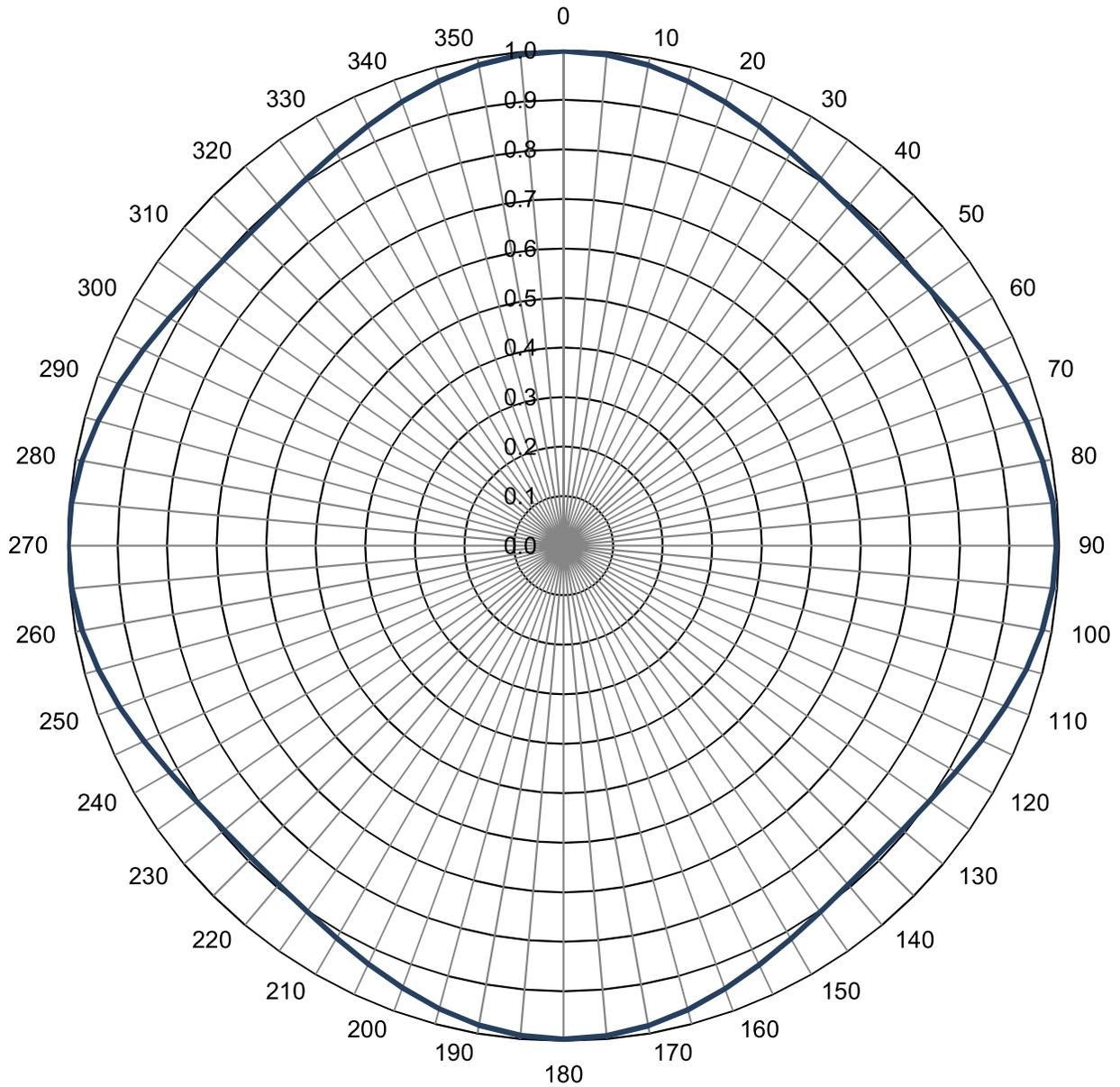
The application's transmit location is 38.8 km from Canada. A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2018-12-26 indicates that this application causes no new interference to any Canadian stations in Canada.

The application's transmit location is 2496.1 km from Mexico. As such, no coordination or notification is required.

Azimuth Pattern

Type:	ATW-O10	Polarization:	Horizontal
Directivity:	1.12 numeric (0.50 dB)	Frequency:	24 (ATSC)
Peak(s) at:		Location:	Batavia, NY
		NOTE: Pattern shape and directivity may vary with channel and mounting configuration.	

Relative Field



Tabulated Data for Azimuth Pattern

Type: ATW-O10

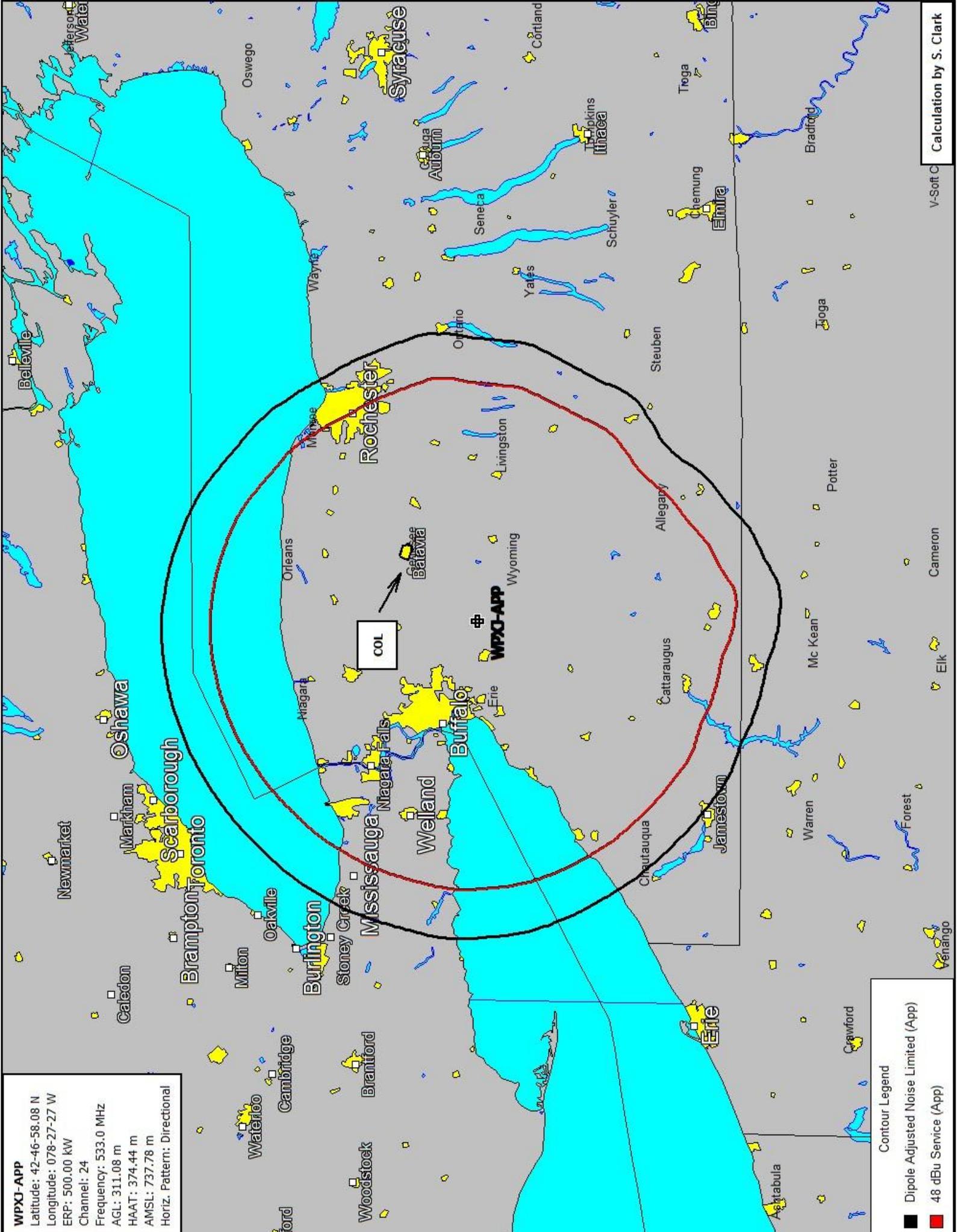
Angle	Field	dB
0	0.998	-0.01
2	0.998	-0.02
4	0.996	-0.03
6	0.993	-0.06
8	0.990	-0.09
10	0.985	-0.13
12	0.980	-0.18
14	0.974	-0.23
16	0.967	-0.29
18	0.960	-0.35
20	0.953	-0.42
22	0.945	-0.49
24	0.938	-0.56
26	0.931	-0.62
28	0.924	-0.69
30	0.917	-0.75
32	0.911	-0.81
34	0.906	-0.86
36	0.901	-0.91
38	0.897	-0.94
40	0.894	-0.97
42	0.892	-0.99
44	0.891	-1.00
46	0.891	-1.01
48	0.892	-1.00
50	0.893	-0.98
52	0.896	-0.95
54	0.900	-0.92
56	0.904	-0.88
58	0.909	-0.83
60	0.915	-0.77
62	0.921	-0.71
64	0.928	-0.65
66	0.935	-0.58
68	0.943	-0.51
70	0.950	-0.44
72	0.957	-0.38
74	0.964	-0.32
76	0.971	-0.26
78	0.977	-0.20
80	0.982	-0.16
82	0.986	-0.12
84	0.990	-0.09
86	0.993	-0.06
88	0.994	-0.05
90	0.995	-0.05
92	0.994	-0.05
94	0.992	-0.07
96	0.990	-0.09
98	0.986	-0.12

Angle	Field	dB
100	0.981	-0.16
102	0.976	-0.21
104	0.970	-0.27
106	0.963	-0.33
108	0.956	-0.39
110	0.949	-0.45
112	0.942	-0.52
114	0.934	-0.59
116	0.927	-0.66
118	0.920	-0.72
120	0.914	-0.78
122	0.908	-0.84
124	0.903	-0.88
126	0.899	-0.93
128	0.895	-0.96
130	0.893	-0.99
132	0.891	-1.00
134	0.890	-1.01
136	0.891	-1.01
138	0.892	-0.99
140	0.894	-0.97
142	0.897	-0.94
144	0.901	-0.91
146	0.906	-0.86
148	0.911	-0.81
150	0.917	-0.75
152	0.923	-0.69
154	0.930	-0.63
156	0.938	-0.56
158	0.945	-0.49
160	0.952	-0.42
162	0.960	-0.36
164	0.967	-0.30
166	0.973	-0.24
168	0.979	-0.18
170	0.984	-0.14
172	0.989	-0.10
174	0.992	-0.07
176	0.995	-0.04
178	0.996	-0.03
180	0.997	-0.03
182	0.996	-0.03
184	0.994	-0.05
186	0.992	-0.07
188	0.988	-0.11
190	0.983	-0.15
192	0.978	-0.20
194	0.972	-0.25
196	0.965	-0.31
198	0.958	-0.37

Angle	Field	dB
200	0.950	-0.44
202	0.943	-0.51
204	0.936	-0.58
206	0.928	-0.65
208	0.922	-0.71
210	0.915	-0.77
212	0.909	-0.83
214	0.904	-0.88
216	0.900	-0.92
218	0.896	-0.95
220	0.893	-0.98
222	0.892	-1.00
224	0.891	-1.00
226	0.891	-1.00
228	0.892	-0.99
230	0.894	-0.97
232	0.897	-0.94
234	0.901	-0.91
236	0.905	-0.86
238	0.911	-0.81
240	0.917	-0.75
242	0.923	-0.69
244	0.931	-0.63
246	0.938	-0.56
248	0.945	-0.49
250	0.953	-0.42
252	0.961	-0.35
254	0.968	-0.28
256	0.975	-0.22
258	0.981	-0.17
260	0.986	-0.12
262	0.991	-0.08
264	0.995	-0.04
266	0.998	-0.02
268	0.999	-0.01
270	1.000	0.00
272	1.000	0.00
274	0.998	-0.02
276	0.995	-0.04
278	0.992	-0.07
280	0.987	-0.11
282	0.982	-0.16
284	0.976	-0.21
286	0.969	-0.27
288	0.962	-0.34
290	0.955	-0.40
292	0.947	-0.47
294	0.940	-0.54
296	0.932	-0.61
298	0.925	-0.67

Angle	Field	dB
300	0.919	-0.74
302	0.913	-0.79
304	0.908	-0.84
306	0.903	-0.89
308	0.899	-0.92
310	0.896	-0.95
312	0.894	-0.97
314	0.893	-0.98
316	0.893	-0.98
318	0.894	-0.97
320	0.896	-0.95
322	0.899	-0.93
324	0.902	-0.89
326	0.907	-0.85
328	0.912	-0.80
330	0.918	-0.74
332	0.925	-0.68
334	0.931	-0.62
336	0.939	-0.55
338	0.946	-0.48
340	0.953	-0.41
342	0.961	-0.35
344	0.968	-0.29
346	0.974	-0.23
348	0.980	-0.17
350	0.985	-0.13
352	0.990	-0.09
354	0.994	-0.06
356	0.996	-0.03
358	0.998	-0.02
360	0.998	-0.01

WPXI-APP
 Latitude: 42-46-58.08 N
 Longitude: 078-27-27 W
 ERP: 500.00 kW
 Channel: 24
 Frequency: 533.0 MHz
 AGL: 311.08 m
 HAAT: 374.44 m
 AMSL: 737.78 m
 Horiz. Pattern: Directional



Contour Legend
 ■ Dipole Adjusted Noise Limited (APP)
 ■ 48 dBu Service (APP)

Calculation by S. Clark
 V-Soft C