

Application for Modification
Post – Repack Construction Permit
Engineering Exhibit

WSPX-TV – Syracuse, NY

Facility ID: 64352

Licensee "ION MEDIA SYRACUSE LICENSE, INC" is currently authorized to operate on Post-Repack DTV channel 36. The Antenna Structure Registration Number is 1059064 with a Latitude of 43-18-18.0 N+ and a Longitude of 76-2-57.1 W-.

The purpose of this application is to request authority to modify the construction permit (0000029579) to operate from Antenna Structure Registration Number 1004101 with a Latitude of 42-56-42.0 N+ and a Longitude of 76-1-27.0 W-. The HAAT is 452.1m (AGL 275.02m) with an AMSL of 758.1m. An ERP of 82 kW will be utilized.

Antenna System

A directional 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	
0.403	0.000222	0.05%

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 2019-02-20 indicates that there is no excessive new interference created. This study used cell spacing of 2 km and a profile spacing of 1 km. Baseline records were excluded if the station has a CP.

§73.622 Maximum ERP and Antenna Height

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

§73.623 DTV Allotments

The application does not change the DTV Table of Allotments.

Application for Modification
Post – Repack Construction Permit
Engineering Exhibit

§73.625 Coverage of Principal Community

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

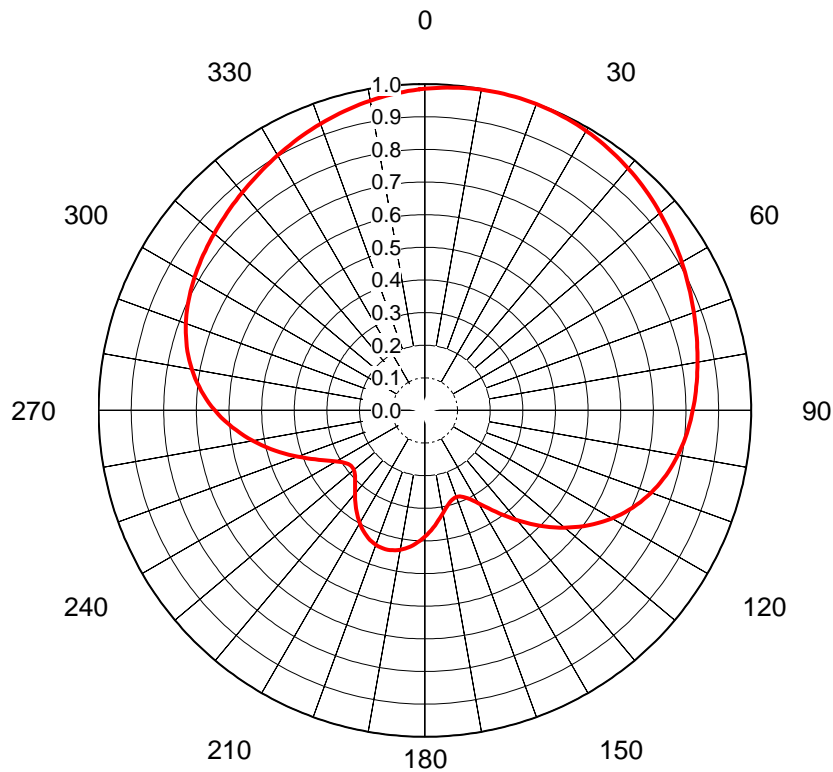
§73.1030 Radio, Research and Receiving Locations

A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2019-02-20 indicates that no excessive interference to any "protected" locations.

§73.1650 International Agreements

The application's transmit location is 98.6 km from Canada. A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2019-02-20 indicates that this application causes no new interference to any Canadian stations in Canada.

The application's transmit location is 2673.6 km from Mexico. As such, no coordination or notification is required.



AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70356-3**
 Date **23-Jul-18**
 Call Letters **WSPX 36**
 Frequency **605 MHz**
 Antenna Type **TFU-17ETT/VP-R S190**

Gain **1.91 (2.8dB)**
Calculated

Directional
 Drawing # **TFU-S190**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.986	36	0.978	72	0.871	108	0.750	144	0.391	180	0.387	216	0.361	252	0.438	288	0.770	324	0.884
1	0.988	37	0.976	73	0.868	109	0.744	145	0.379	181	0.393	217	0.354	253	0.450	289	0.775	325	0.887
2	0.989	38	0.974	74	0.865	110	0.738	146	0.368	182	0.399	218	0.347	254	0.463	290	0.779	326	0.890
3	0.991	39	0.971	75	0.863	111	0.731	147	0.358	183	0.405	219	0.340	255	0.475	291	0.784	327	0.893
4	0.992	40	0.969	76	0.860	112	0.725	148	0.348	184	0.410	220	0.333	256	0.487	292	0.788	328	0.896
5	0.993	41	0.967	77	0.857	113	0.718	149	0.338	185	0.415	221	0.326	257	0.499	293	0.792	329	0.899
6	0.994	42	0.964	78	0.854	114	0.711	150	0.329	186	0.419	222	0.320	258	0.511	294	0.795	330	0.903
7	0.995	43	0.961	79	0.851	115	0.703	151	0.320	187	0.424	223	0.313	259	0.524	295	0.799	331	0.906
8	0.996	44	0.959	80	0.848	116	0.696	152	0.313	188	0.427	224	0.308	260	0.535	296	0.802	332	0.909
9	0.997	45	0.956	81	0.846	117	0.688	153	0.306	189	0.431	225	0.302	261	0.547	297	0.806	333	0.912
10	0.998	46	0.953	82	0.843	118	0.679	154	0.300	190	0.434	226	0.297	262	0.559	298	0.809	334	0.916
11	0.999	47	0.950	83	0.840	119	0.671	155	0.294	191	0.436	227	0.293	263	0.570	299	0.812	335	0.919
12	0.999	48	0.947	84	0.838	120	0.662	156	0.290	192	0.438	228	0.289	264	0.581	300	0.815	336	0.922
13	0.999	49	0.944	85	0.835	121	0.653	157	0.287	193	0.440	229	0.286	265	0.592	301	0.818	337	0.925
14	1.000	50	0.941	86	0.832	122	0.643	158	0.284	194	0.441	230	0.284	266	0.603	302	0.821	338	0.929
15	1.000	51	0.938	87	0.829	123	0.634	159	0.283	195	0.442	231	0.283	267	0.614	303	0.824	339	0.932
16	1.000	52	0.935	88	0.827	124	0.624	160	0.282	196	0.442	232	0.282	268	0.624	304	0.827	340	0.935
17	1.000	53	0.932	89	0.824	125	0.614	161	0.283	197	0.442	233	0.283	269	0.634	305	0.829	341	0.938
18	1.000	54	0.929	90	0.821	126	0.603	162	0.284	198	0.441	234	0.284	270	0.643	306	0.832	342	0.941
19	0.999	55	0.925	91	0.818	127	0.592	163	0.286	199	0.440	235	0.287	271	0.653	307	0.835	343	0.944
20	0.999	56	0.922	92	0.815	128	0.581	164	0.289	200	0.438	236	0.290	272	0.662	308	0.838	344	0.947
21	0.999	57	0.919	93	0.812	129	0.570	165	0.293	201	0.436	237	0.294	273	0.671	309	0.840	345	0.950
22	0.998	58	0.916	94	0.809	130	0.559	166	0.297	202	0.434	238	0.300	274	0.679	310	0.843	346	0.953
23	0.997	59	0.912	95	0.806	131	0.547	167	0.302	203	0.431	239	0.306	275	0.688	311	0.846	347	0.956
24	0.996	60	0.909	96	0.802	132	0.535	168	0.308	204	0.427	240	0.313	276	0.696	312	0.848	348	0.959
25	0.995	61	0.906	97	0.799	133	0.524	169	0.313	205	0.424	241	0.320	277	0.703	313	0.851	349	0.961
26	0.994	62	0.903	98	0.795	134	0.511	170	0.320	206	0.419	242	0.329	278	0.711	314	0.854	350	0.964
27	0.993	63	0.899	99	0.792	135	0.499	171	0.326	207	0.415	243	0.338	279	0.718	315	0.857	351	0.967
28	0.992	64	0.896	100	0.788	136	0.487	172	0.333	208	0.410	244	0.348	280	0.725	316	0.860	352	0.969
29	0.991	65	0.893	101	0.784	137	0.475	173	0.340	209	0.405	245	0.358	281	0.731	317	0.863	353	0.971
30	0.989	66	0.890	102	0.779	138	0.463	174	0.347	210	0.399	246	0.368	282	0.738	318	0.865	354	0.974
31	0.988	67	0.887	103	0.775	139	0.450	175	0.354	211	0.393	247	0.379	283	0.744	319	0.868	355	0.976
32	0.986	68	0.884	104	0.770	140	0.438	176	0.361	212	0.387	248	0.391	284	0.750	320	0.871	356	0.978
33	0.984	69	0.880	105	0.765	141	0.426	177	0.367	213	0.381	249	0.402	285	0.755	321	0.874	357	0.980
34	0.982	70	0.877	106	0.760	142	0.414	178	0.374	214	0.374	250	0.414	286	0.760	322	0.877	358	0.982
35	0.980	71	0.874	107	0.755	143	0.402	179	0.381	215	0.367	251	0.426	287	0.765	323	0.880	359	0.984

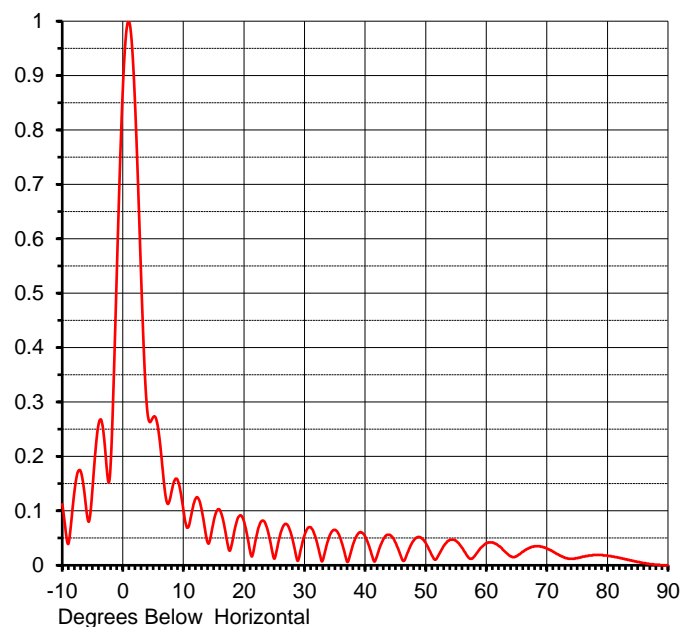
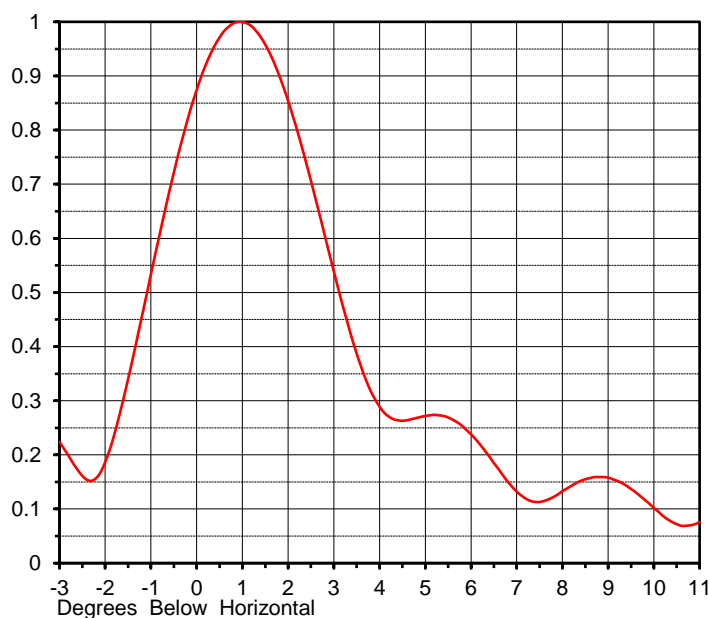
This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

ELEVATION PATTERN

Proposal No. **C-70356-3**
 Date **23-Jul-18**
 Call Letters **WSPX 36**
 Frequency **605 MHz**
 Antenna Type **TFU-17ETT/VP-R S190**

RMS Directivity at Main Lobe **17.10 (12.33 dB)**
 RMS Directivity at Horizontal **13.10 (11.17 dB)**
Calculated

Beam Tilt **0.95 deg**
 Drawing Number **17E171095**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.112	10.0	0.102	30.0	0.055	50.0	0.041	70.0	0.031
-9.0	0.039	11.0	0.076	31.0	0.070	51.0	0.019	71.0	0.025
-8.0	0.134	12.0	0.122	32.0	0.044	52.0	0.016	72.0	0.019
-7.0	0.174	13.0	0.103	33.0	0.009	53.0	0.036	73.0	0.014
-6.0	0.100	14.0	0.042	34.0	0.050	54.0	0.047	74.0	0.012
-5.0	0.141	15.0	0.081	35.0	0.065	55.0	0.045	75.0	0.013
-4.0	0.259	16.0	0.102	36.0	0.047	56.0	0.032	76.0	0.016
-3.0	0.224	17.0	0.058	37.0	0.007	57.0	0.015	77.0	0.018
-2.0	0.187	18.0	0.039	38.0	0.038	58.0	0.016	78.0	0.019
-1.0	0.534	19.0	0.087	39.0	0.060	59.0	0.031	79.0	0.019
0.0	0.874	20.0	0.081	40.0	0.053	60.0	0.040	80.0	0.018
1.0	1.000	21.0	0.027	41.0	0.023	61.0	0.042	81.0	0.016
2.0	0.854	22.0	0.050	42.0	0.018	62.0	0.036	82.0	0.014
3.0	0.539	23.0	0.082	43.0	0.048	63.0	0.026	83.0	0.011
4.0	0.289	24.0	0.061	44.0	0.056	64.0	0.017	84.0	0.009
5.0	0.272	25.0	0.012	45.0	0.042	65.0	0.017	85.0	0.006
6.0	0.238	26.0	0.057	46.0	0.014	66.0	0.025	86.0	0.004
7.0	0.132	27.0	0.076	47.0	0.023	67.0	0.031	87.0	0.002
8.0	0.133	28.0	0.049	48.0	0.045	68.0	0.035	88.0	0.001
9.0	0.158	29.0	0.010	49.0	0.052	69.0	0.034	89.0	0.000
								90.0	0.000

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided.
 No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

WSPX-Application

Latitude: 42-56-42 N
Longitude: 076-01-27 W
ERP: 82.00 kW
Channel: 36
Frequency: 605.0 MHz
AGL: 275.02 m
HAAT: 452.09 m
AMSL: 758.12 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.95

