

T Z SAWYER TECHNICAL CONSULTANTS

2130 HUTCHISON GROVE COURT, SUITE 100
FALLS CHURCH, VIRGINIA 22043
TELEPHONE (703) 848-2130 / (202) 642-2130

DIGITAL LPTV FACILITY MINOR CHANGE APPLICATION WBUO-LD TELEVISION CHANNEL 30

APPLICATION ENGINEERING AMENDMENT

FCC FACILITY ID: 68012
BUFFALO, NEW YORK

ENGINEERING NARRATIVE

Minor Change Application (Engineering Amendment):

WBUO-LD, seeks to amend its pending application to specific a slightly different antenna system. No change in the antenna height or power or site location will occur. The maximum effective radiated power (ERP) remains at 15.0 kilowatts. The proposed antenna is a PSI "PSILP16AB", a directional antenna. A full-service filter mask is to be employed. The facility requested is not contingent upon a grant or channel move of any other known facility at the time of filing.

Modification Compliance:

Pursuant to 47 CFR §74.787(b) the instant application amendment is considered a "minor" change because;

- There is no change in transmitting antenna location such that the protected service contour resulting from the change does not overlap some portion of the protected service contour of the authorized facilities of the existing station as illustrated in Figure 1, Present & Proposed Service Contours.
- There is no change in transmitting antenna location greater than 30 miles (48 km) from the reference coordinates of the existing station's licensed location, as noted below:

CALCULATED DISTANCE BETWEEN EXISTING LICENSED AND PROPOSED SITES

SITE	LAT (NAD83)	LON (NAD83)	(KM)	(MI)
CURRENT/EXISTING	42-16-35.30 N	078-39-29.60 W	40.25	25.01
PROPOSED	42-38-10.40 N	078-42-59.60 W		

FCC Tower Registration (ASR) - FAA Notification:

The proposed mounting structure is a 129.2 meter AGL existing communications tower and has been issued an FCC ASR number of 1007352. No changes in the supporting structure is required that would require notification to the FAA or ASR modification.

Antenna Elevations:

The center of radiation of the proposed antenna is 103.4 meters AGL, 560.0 meters AMSL. The ground elevation at the site is 456.6 meters.

FCC TVStudy Results:

FCC TVStudy Cell Size 1.0 km, Profile Spacing 1.0 km is requested. The results of a interference study of the proposal using the FCC TVStudy program (Version 2.2.5), shows that no prohibitive interference will occur from the proposal. A copy of the summary report has been included in this application.

The applicant accepts any incoming interference that is predicted to exist to the proposed facility by any authorized or pending, primary or secondary TV station at the time this application is submitted.

Canada Coordination:

Coordination with Canada is presumed to still be pending (over a year later). This amendment reduces slightly the predicted interference to co-channel (Channel 30) Canadian facility CITY, Toronto, ON as listed below:

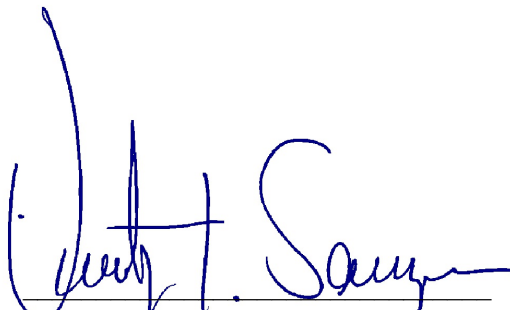
FCC TVSTUDY RESULTS

INTERFERENCE TO CITY, CH 30, TORONTO, ONTARIO	INTERFERENCE % TO SERVICE POPULATION WITHIN CANADA
CURRENT PENDING APPLICATION	0.49%
THIS AMENDMENT RESULTS	0.42%

Environmental Evaluation Statement:

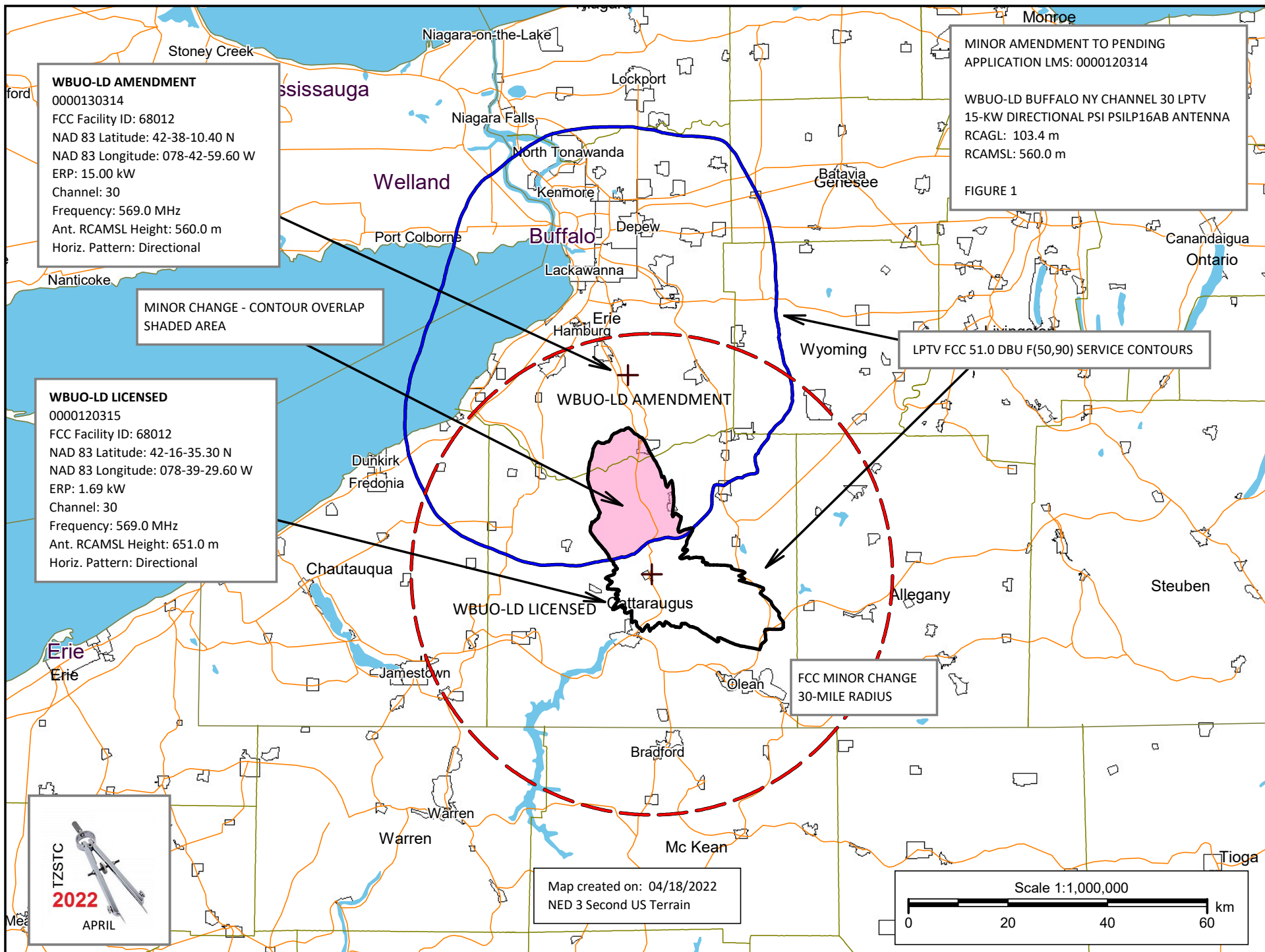
The environmental evaluation statement concerning this proposal has been included in this application and can be found as a separate file upload within the application. A grant of this proposal would NOT be an action which would have a significant environmental effect as demonstrated in the environmental evaluation statement.

April 18, 2022



Timothy Z. Sawyer, Consulting Engineer

T Z Sawyer Technical Consultants
2130 Hutchison Grove Court, Suite 100
Falls Church, VA 22043
Tel.: (703) 848-2130
e-mail: tzsawyer@tzsawyer.com



Antenna Pattern PSI PSILP16AB

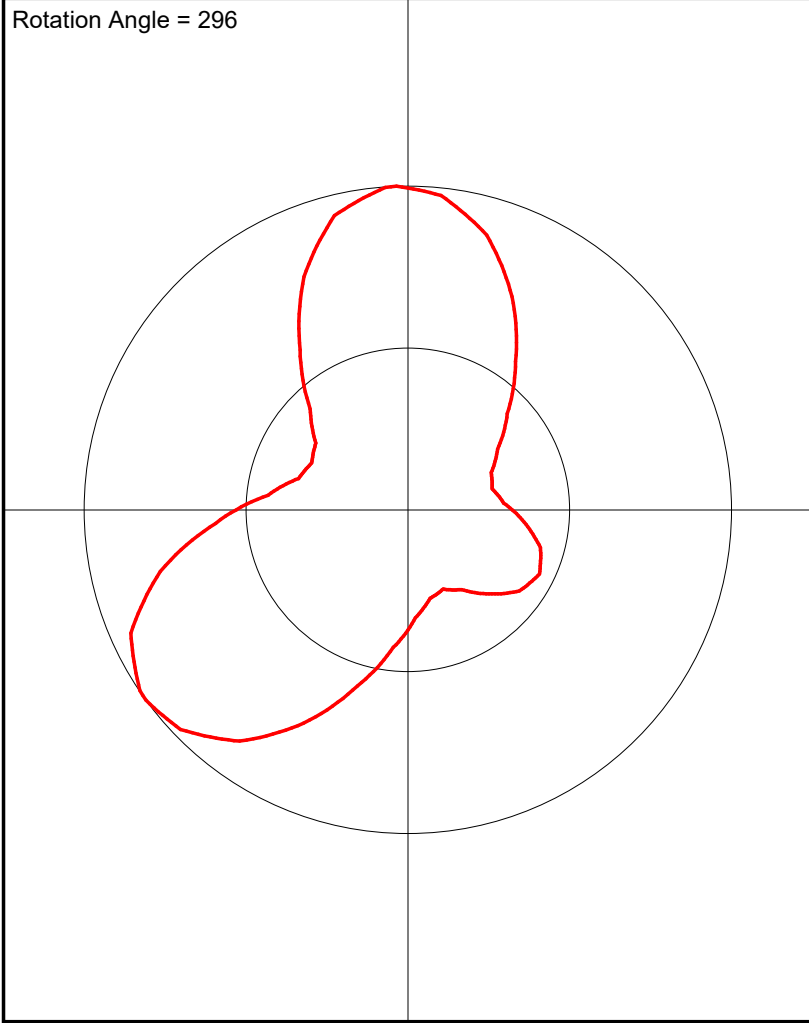
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.33
10.0	0.351
20.0	0.434
30.0	0.595
40.0	0.788
50.0	0.936
60.0	0.998
70.0	0.976
80.0	0.883
90.0	0.733
100.0	0.566
110.0	0.427
120.0	0.334
130.0	0.282
140.0	0.268
150.0	0.297
160.0	0.361
170.0	0.426
180.0	0.452
190.0	0.426
200.0	0.361
210.0	0.297
220.0	0.268
230.0	0.282
240.0	0.334
250.0	0.427
260.0	0.566
270.0	0.733
280.0	0.883
290.0	0.976
300.0	0.998
310.0	0.936
320.0	0.788
330.0	0.595
340.0	0.434
350.0	0.351

062.01.000

298.01.000

Rotation Angle = 296



PATTERN DISPLAYED
IS ROTATED 296.0 DEG

FCC TVSUMMARY REPORT - NO INTERFERENCE FAILURES

Proposal: WBUO-LD D30 LD APP BUFFALO, NY
File number: WBUO APP ANTENNA MOD
Facility ID: 68012
Station data: User record
Record ID: 592
Country: U.S.

Proposal "before": WBUO-LD D30 LD APP *P OLEAN, NY
File number: BLANK0000130314
Facility ID: 68012
Station data: LMS TV 2022-04-19
Record ID: 25076ff3767950e30176c3b6a5d63646
Country: U.S.

Record parameters as studied:

Channel: D30
Mask: Full Service
Latitude: 42 38 10.40 N (NAD83)
Longitude: 78 42 59.60 W
Height AMSL: 560.0 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: PSI-PSILP16AB (ID 1008725) 296.0 deg
Elev Pattn: Generic
Elec Tilt: 1.00

50.3 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	14.8 kW	200.4 m	50.5 km
45.0	2.92	183.9	41.2
90.0	1.56	111.4	33.3
135.0	2.03	77.6	30.6
180.0	2.07	144.5	37.0
225.0	14.0	147.3	47.0
270.0	4.22	203.9	44.3
315.0	2.72	307.4	47.4

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 172 m

**Proposal 25.32 dBu contour crosses Canadian border, coordination required
Distance to Canadian border: 27.8 km

Distance to Mexican border: 2469.6 km

Conditions at FCC monitoring station: Canandaigua NY
Bearing: 74.9 degrees Distance: 122.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 271.9 degrees Distance: 2218.3 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

No IX check failures found.

T Z SAWYER TECHNICAL CONSULTANTS

2130 HUTCHISON GROVE COURT, SUITE 100
FALLS CHURCH, VIRGINIA 22043
TELEPHONE (703) 848-2130 / (202) 642-2130

DIGITAL LPTV FACILITY
MINOR CHANGE APPLICATION AMENDMENT
WBUO-LD
TELEVISION CHANNEL 30
FCC FACILITY ID: 68012
BUFFALO, NEW YORK

ENVIRONMENTAL EVALUATION STATEMENT

A grant of this proposal would NOT be an action which would have a significant environmental effect as demonstrated in this environmental evaluation statement. Any changes in equipment, or construction, if necessary will not trigger any event with regards to Section 106 of the National Historical Preservation Act (NHPA).

The proposal does not meet any of the criteria specified in Section 1.1307 of the FCC Rules. More specifically, the proposed facilities are not known to fall within any of the categories enumerated in Sections 1.1307(a)(1)-(7) and will not involve the use of high intensity white lights. Furthermore, operation of the proposed facility will not involve the exposure of workers or the general public to levels of radio frequency electromagnetic fields exceeding guidelines adopted by the Federal Communications Commission. (The current FCC guidelines are based upon criteria contained in the National Council of Radiation Protection and Measurements (NCRP) Report No.86 (1986) and ANSI/IEEE C95.1-1992.)

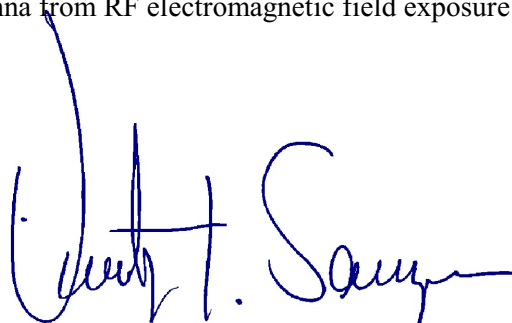
CALCULATED POWER DENSITY AT 2 METERS AGL (0.3 ANTENNA RELATIVE FIELD VALUE) ERP MAX (H)

CR AGL 103.4 M ERP MAX 15.0 KW	MPE ($\mu\text{W}/\text{CM}^2$)	CALCULATED VALUE ($\mu\text{W}/\text{CM}^2$)	% OF MPE	PASS/FAIL
CONTROLLED AREA	1896.7	4.385	0.23%	PASS
PUBLIC AREA	379.3		1.16%	PASS

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs are posted at the site. The applicant will coordinate exposure procedures with any co-located facilities and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

April 18, 2022

T Z Sawyer Technical Consultants
2130 Hutchison Grove Court, Suite 100
Falls Church, Virginia 22043
Telephone: (703) 848-2130
e Mail to: tzsawyer@tzsawyer.com



Timothy Z. Sawyer, Consulting Engineer