

Comprehensive Technical Statement

HPL Communications, Inc.

Minor Modification to Construction Permit # BNPFT-20171213ABS

W291DI, FCC Facility ID # 200172, Batavia, NY

Introduction

The following changes are proposed:

- Transmitter location
- Antenna height
- Antenna model

AM Improvement New Translator

The facility was proposed in the AM Improvement New Translator filing window in 2017.

Data Sources

Distances were calculated using the FCC method defined in 73.208 of the Commission's Rules.

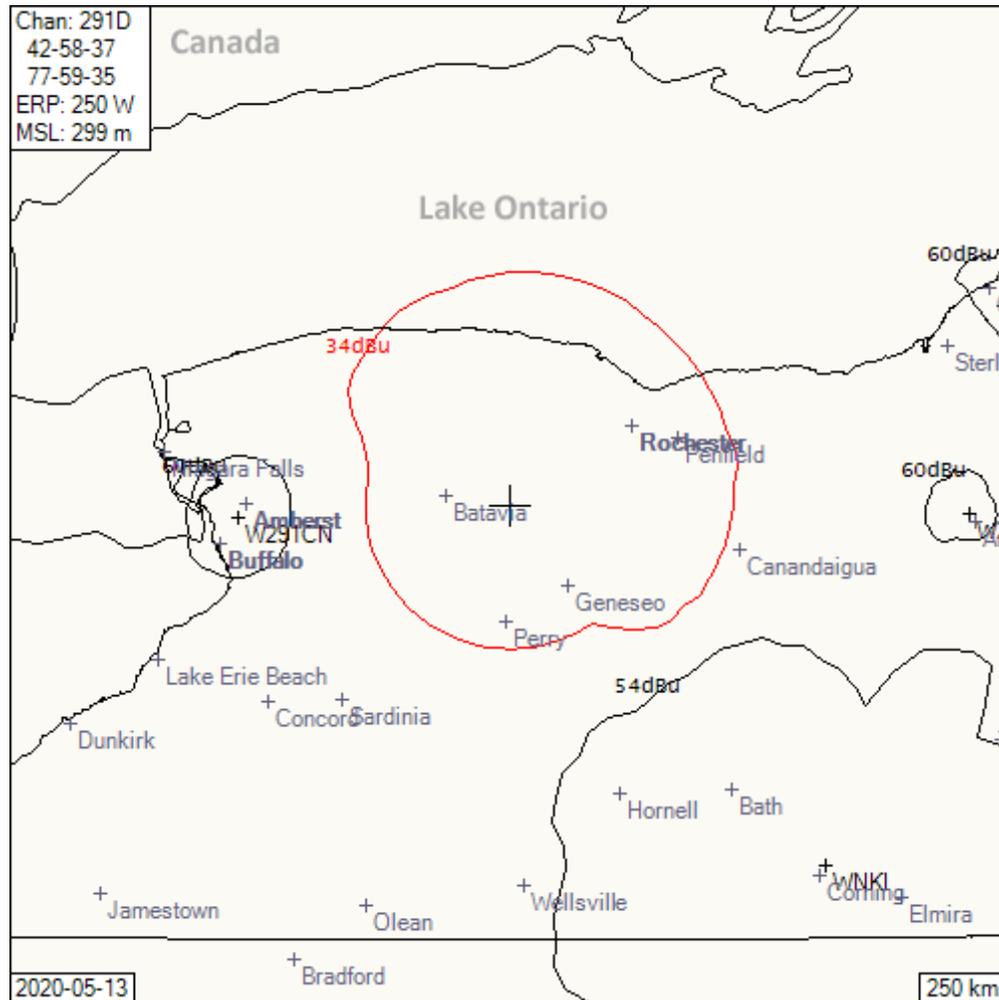
All contours shown in this report were generated using antenna center above mean sea level, NAD-27 coordinates, and the FCC online HAAT calculator, set to use 30-second terrain data.

Note that there is a one second discrepancy between the longitude shown on the maps and the proposed coordinates. This is due to NAD-27/83 conversion.

Detailed Interference Study

The following collection of maps and the narrative accompanying each show that no prohibited overlap will occur between the proposed facility and any potentially conflicting facility or proposal. Interfering $f(50,10)$ contours are shown as red polygons, and protected $f(50,50)$ contours are shown as black polygons.

Map 1 – Co-channel Outbound Interference



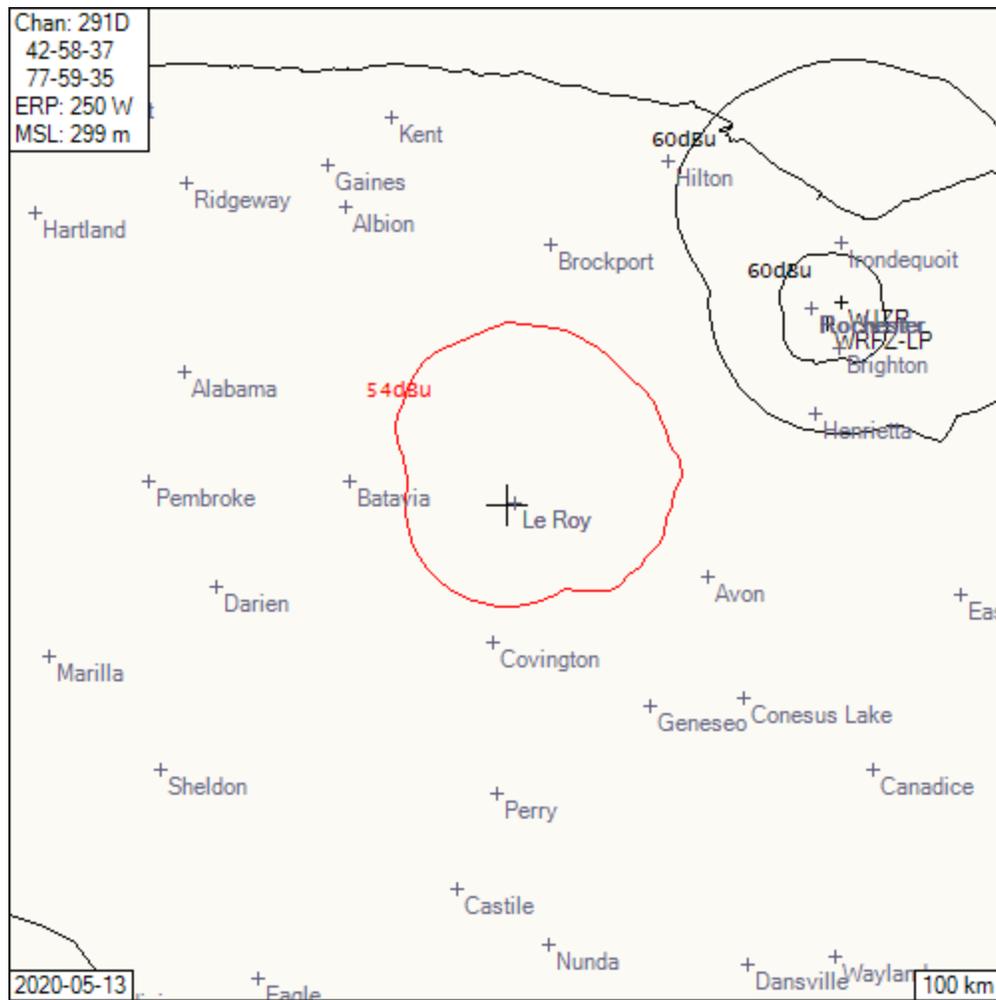
There is no overlap of the interfering contour with the protected contour of any station or proposal. It should also be noted that the 34 dBu $f(50,10)$ contour does not reach Canada. Please see the “International” section below for further information regarding coordination.

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Map 2 – First Adjacent Outbound Interference



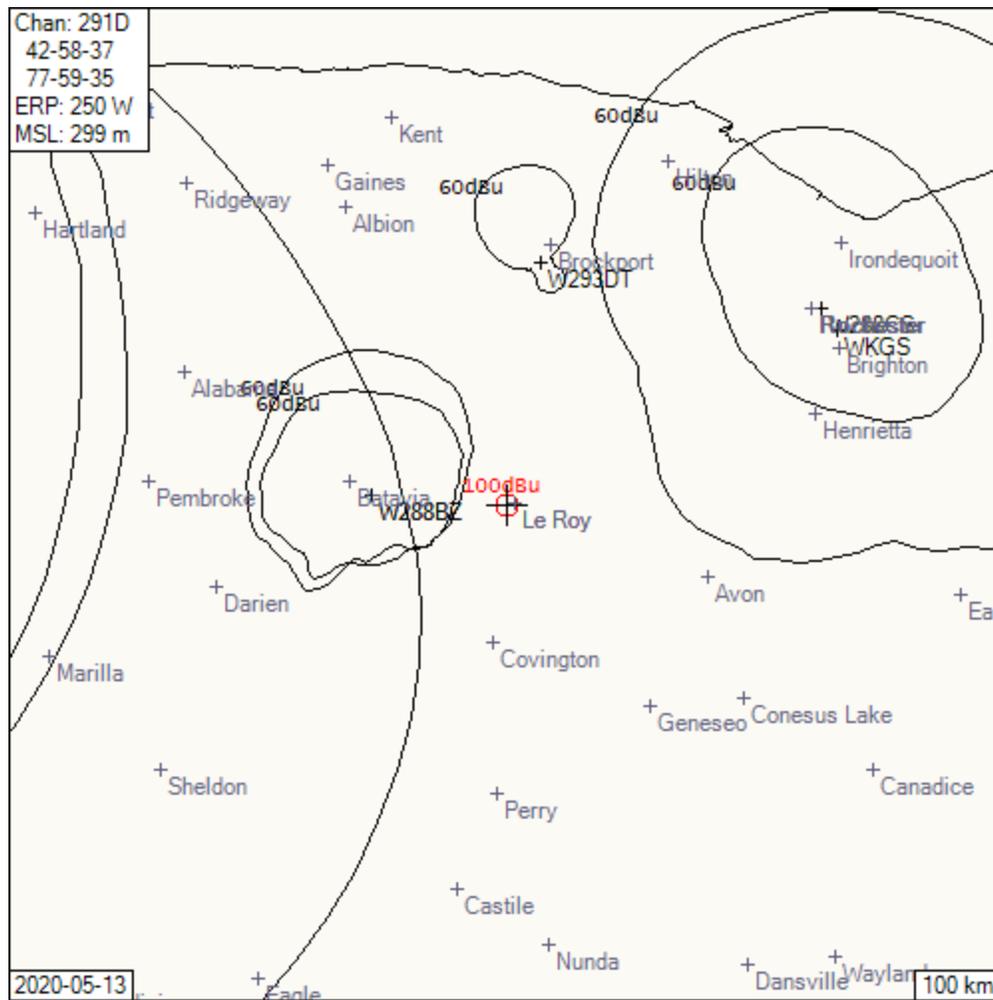
There is no overlap of the interfering contour with the protected contour of any station or proposal. WLZR (Class A) and WRFZ-LP are both protected to the 60 dBu contour, and the 54 dBu f(50,10) contour is appropriate in this context.

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Map 3 – Second/Third Adjacent Outbound Interference Detail



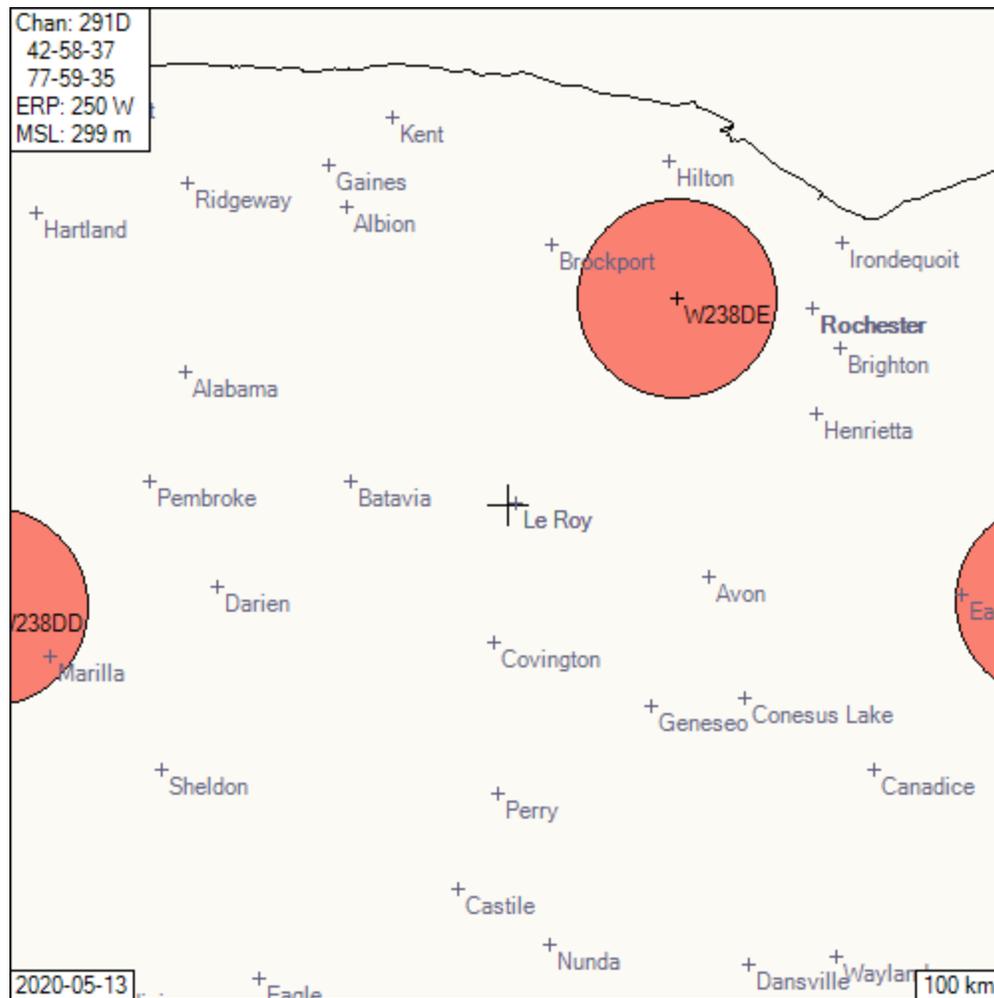
There is no overlap of the interfering contour with the protected contour of any station or proposal.

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IF Separation requirements



There are no IF separation conflicts.

Channel 6 Interference

The proposed facility is not on a channel that is implicated in channel 6 interference.

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International

The FM Agreements with Canada and Mexico require evaluation and potential coordination of any proposal within 320 km of the border.

The distance to the nearest point along the US/Mexico border is 2,539 km. Coordination with Mexico is not required.

The distance to the nearest point along the US/Canada border is 22.7 km. Evaluation with respect to Canadian facilities and proposals is required.

As shown on the co-channel interference map above, the 34 dBu f(50,10) contour does not reach Canadian soil. The maximum extent of the 34 dBu f(50,10) contour is 59.7 km. Should a waiver of §74.1235(d) be required, such waiver is requested.

Quiet Zones

The proposed site is outside the National Radio Quiet Zone (National Radio Astronomy Observatory Notification Area) in West Virginia.

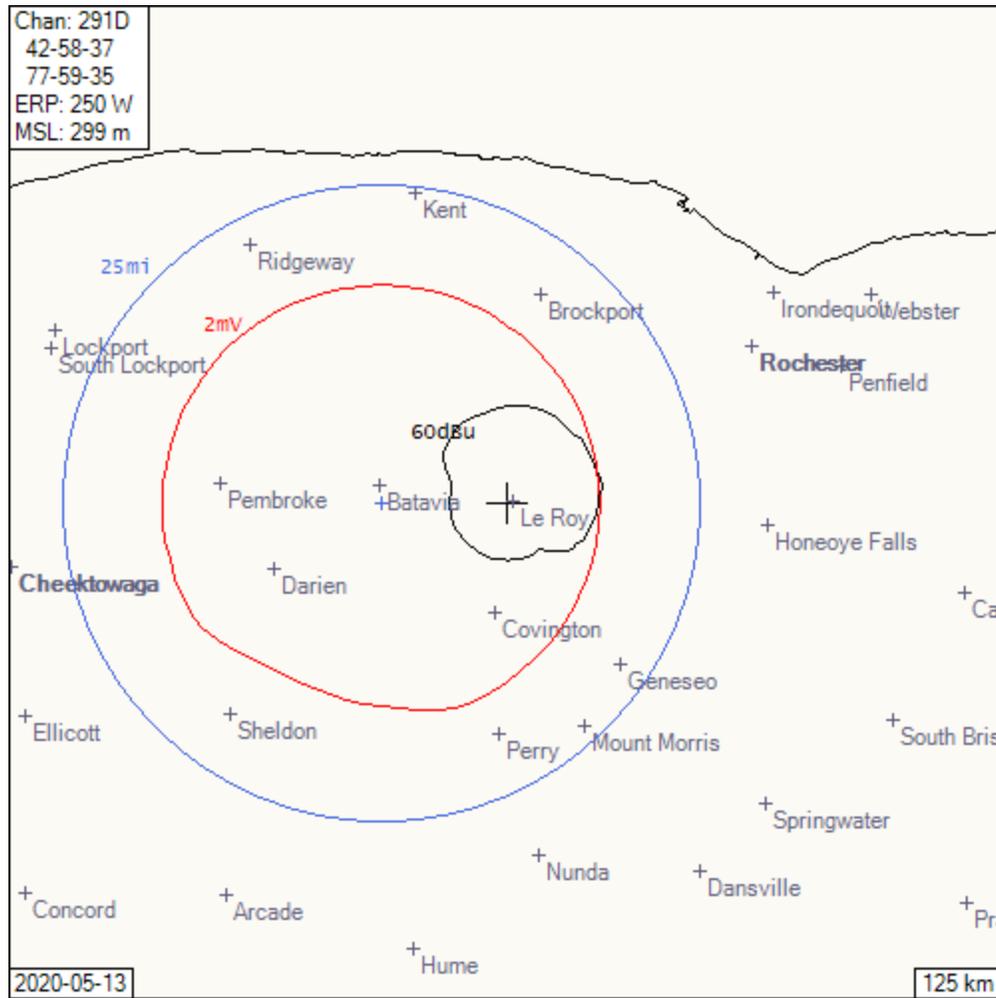
The proposed site is outside the Arecibo Observatory notification area in Puerto Rico.

The proposed site is not within a 100 km extension of the Table Mountain Radio Receiving Zone in Colorado.

Protected Monitoring Stations

The nearest Protected Monitoring Station is 60 km distant, in Canandaigua, NY. This is well beyond any potential 80 dBu contour.

Fill-In Translator



The proposed primary station is WBTA, Batavia, NY FCC Facility ID # 31811.

The proposed 60 dBu f(50,50) contour is shown as a black polygon. The WBTA 2 mV/m contour is shown as a red polygon. The 25 mile circle around the WBTA transmitter is shown in blue.

The proposed 60 dBu f(50,50) contour falls entirely within the 25 mile circle. The translator is commonly owned with the primary station. The proposal therefore qualifies as fill-in service.

No Duplicate Area Served

The primary station, WBTA, is also retransmitted by co-owned translator W261CR, Batavia, NY, FCC Facility ID #150987. The contours of the proposal and W261CR do not intersect.

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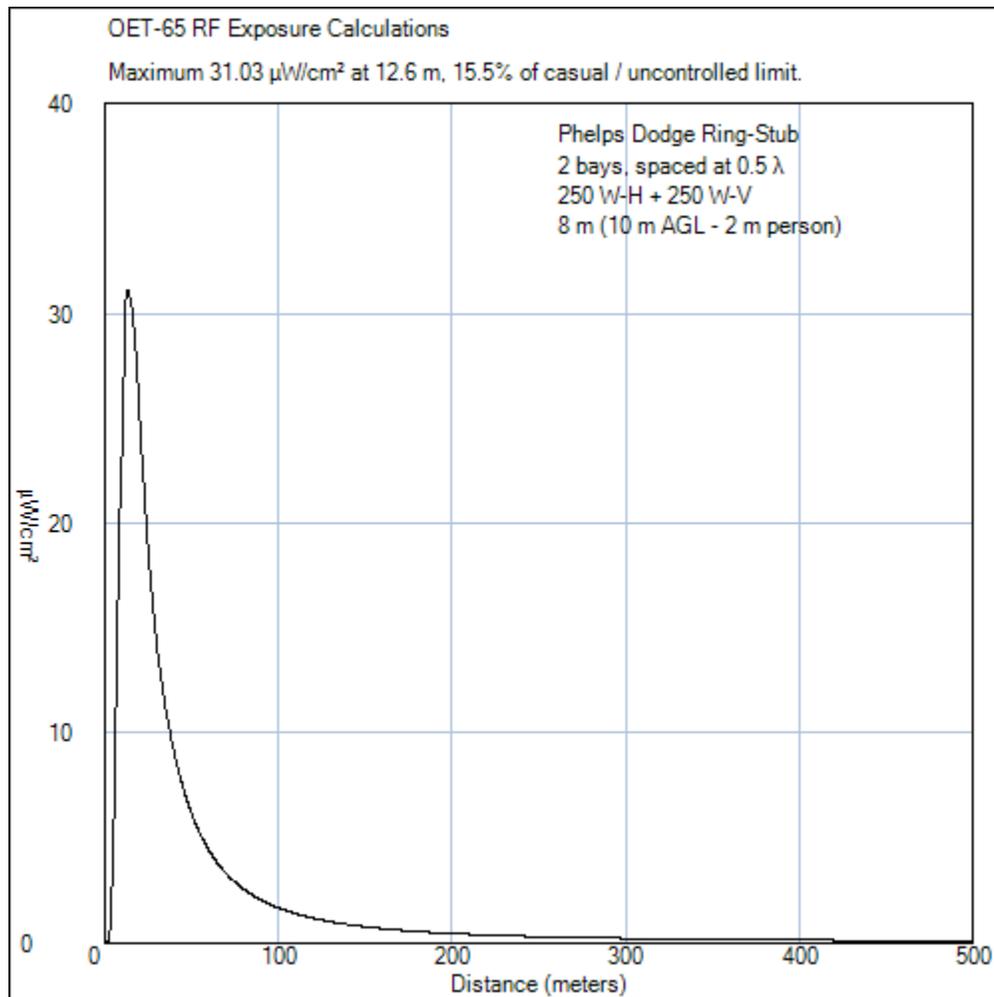
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Environmental

The proposed site is an existing tower. No construction, excavation, or increase to the height of the tower is proposed.

The proposed effective radiated power is 250 W-H + 250 W-V. The 2-bay half-wave-spaced antenna will be mounted 20 m above ground level, 6 m above the building top, and 10 m above the highest occupiable floor.

Assuming the worst-case OET Type 1 antenna model, the OET-65 algorithm returns a maximum exposure of less than 16% of the limit for casual / uncontrolled exposure:



Appropriate access controls and safety signage are provided. The applicant agrees to coordinate with other users of the site to reduce power or shut down in order to protect workers at the site.

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Form 349 Tech Box Data

Channel	291
Primary Station	Facility ID # 31811 Call Sign WBTA City, State Batavia, NY
Delivery Method	Other (Terrestrial) or as appropriate
Coordinates (NAD-83)	42 58 37.4 N Lat 77 59 34.3 W Lon
ASR	Not required. TOWAIR determination attached.
Site Elevation AMSL	279 m
Overall Tower Height AGL	21 m
Radiation Center AGL	20 m
Effective Radiated Power	250 W-H + 250 W-V
Antenna type	Non-Directional
Manufacturer / Model	SHI 6812B-2-SS(0.5)

-0-

TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Structure does not require registration. The structure meets the 6.10-meter (20-foot) Rule criteria.

Your Specifications

NAD83 Coordinates

Latitude	42-58-37.4 north
Longitude	077-59-34.3 west

Measurements (Meters)

Overall Structure Height (AGL)	21
Support Structure Height (AGL)	15
Site Elevation (AMSL)	279

Structure Type

BTWR - Building with Tower

[Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW