

# **T Z SAWYER TECHNICAL CONSULTANTS**

2130 HUTCHISON GROVE COURT, SUITE 100

FALLS CHURCH, VIRGINIA 22043

TELEPHONE (703) 848-2130

## **ENGINEERING STATEMENT IN SUPPORT OF SPECIAL TEMPORARY AUTHORITY (STA) REQUEST**

**BOLL WEEVIL COMMUNICATIONS, LLC  
RADIO STATION WVVL, ELBA, ALABAMA  
CH 266A - 101.1 MHZ, FCC Facility ID: 19141**

### **Engineering Narrative**

This engineering narrative statement supports a request by BOLL WEEVIL COMMUNICATIONS, LLC, WVVL, ELBA, ALABAMA, to operate from a temporary site using a 2-bay antenna to restore service to its community and surrounding area while a permanent site is located. WVVL is currently silent (see BLSTA-20210902AAI and associated correspondence), and must return to the air prior to September 2, 2022.

#### **Statement of Need**

The licensed tower was damaged beyond repair and dismantled by the tower owner, as detailed in the STA silent notice to the Commission. This action forced WVVL to seek a new site. During the intervening time, WVVL has investigated existing developed communication sites within the area. Unfortunately, none of the existing sites were deemed suitable to restore service as a fully licensed facility due to undesirable reduced service areas, or failure to meet the city of license coverage requirements.

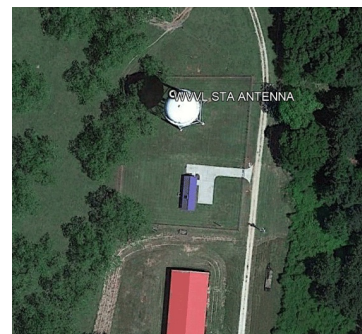
#### **HOWEVER,**

A STA site has finally been located and its use approved by the site owner (the city of Elba, Alabama) which will allow WVVL to resume broadcasting and restore service to the community, while continuing to search and finalize a permanent site. It is request that this STA be issued for a period of 6-months to allow WVVL to continue to serve its community while a final site solution is sought.

Figure 1, Antenna Mounting Structure (an existing city water tank).

A temporary 2-bay circular polarized antenna will be installed (side-mounted) on a pole attached to an existing water tank owned by the city of Elba, Alabama, see Figure 1 for structure and antenna elevations.

Google Earth Site Photo



City Water Tank Site

Figure 2, is a topographic map upon which the site has been marked.

Figure 3 shows the results from the FCC tower-air slope program. This proposal, and the site do not require FAA notification or FCC Antenna Structure Registration. As noted in the photo above, this is an existing structure.

Figure 4, is a map of the predicted service contours from this proposal. The proposed STA site operation does not extend beyond the licensed service contour.

#### Public Interest

A grant of this proposal is in the public interest as it will allow WVVL to resume broadcasting to its listeners, its community, and the surrounding area while a permanent site solution is sought. No predicted interference to other facilities will result.

#### Environmental Impact - Safety & Other Considerations

No construction will occur that would trigger an environmental statement or section 106 review. WVVL, will cooperate with all site users regarding access to the site and worker's safety, and will reduce power or terminate operations if needed to remain in compliance with the Commission's Rules.

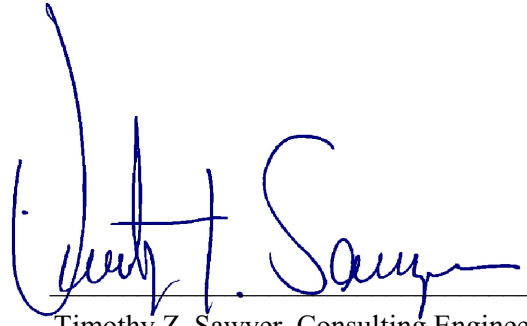
The results of the FCC's FM Model program indicate that the power density from the STA proposal is well below the Commission's Maximum Permissible Exposure (MPE) guideline for both workers and the general public. The antenna is a JAMPRO JMPC-2 a circular polarized two bay FM antenna with 1.0 wavelength spacing between elements. The antenna is classified as an EPA Type 2, and will be mounted 44.2 meters above ground level. The predicted power density is  $21.13 \mu\text{W}/\text{cm}^2$  ; 10.6 % of the public MPE limits and 0.21% of the worker/controlled access MPE limits.

The STA requested technical details are listed in the table below:

STA FACILITIES SOUGHT

STATION	WVVL
FAC ID	19141
FREQUENCY/CHANNEL	101.1 MHZ - CH 266A
MAXIMUM ERP (H & V)	3.0 KW H & V
TOWER FCC ASR	NO REGISTRATION IS REQUIRED
LATITUDE (dd-mm-ss.s) NAD 83	31-24-17.0 N
LONGITUDE (ddd-mm-ss.s) NAD 83	86-00-53.7W
ANTENNA	JAMPRO JMPC 2-BAY WITH 1.0 SPACING
AMSL	166.1 meters
AGL	44.2 meters
HAAT	83 meters
TPO	3.75 kW

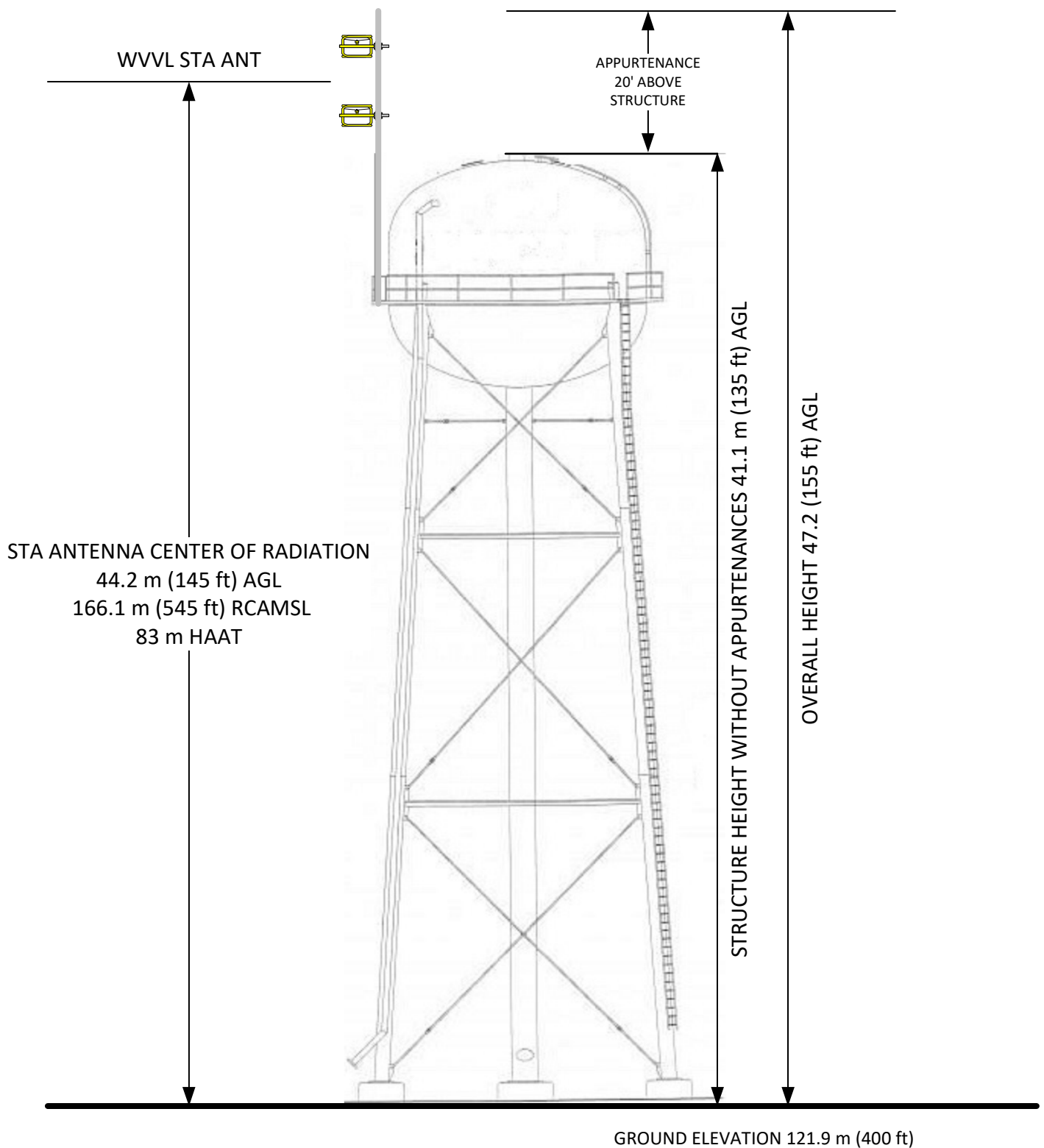
Respectfully submitted,

A handwritten signature in blue ink, reading "Timothy Z. Sawyer", written over a horizontal line.

August 2, 2022

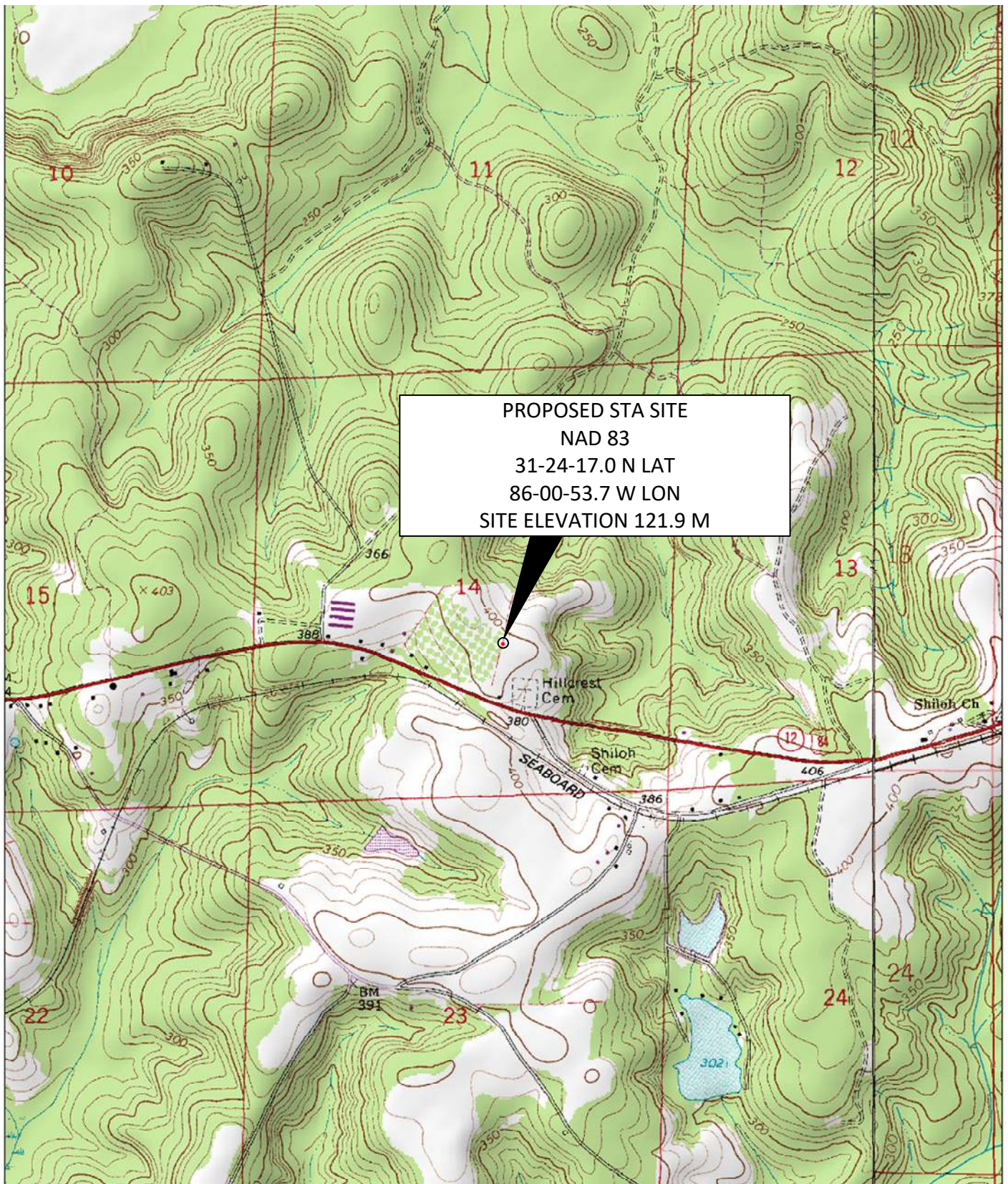
Timothy Z. Sawyer, Consulting Engineer

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T Z SAWYER TECHNICAL CONSULTANTS Tel.: (703) 848-2130 www.tzsawyer.com	EXISTING SUPPORTING STRUCTURE STA REQUEST			
	WVVL (FM) STA ELBA, ALABAMA			FIGURE 1
FALL CHURCH, VIRGINIA 22043-2555	SIZE A	CAGE NO N/A	DWG NO 20220802WVVLSTA.1	REV NONE
(c) 2022, ALL RIGHTS RESERVED	SCALE N/A	AUGUST 2022		SHEET





<b>T Z SAWYER TECHNICAL CONSULTANTS</b> Tel.: (703) 848-2130 www.tzsawyer.com	<b>TOPOGRAPHIC MAP OF STA SITE</b>				
	<b>WVVL (FM) STA</b> <b>ELBA, ALABAMA</b>				<b>FIGURE</b> <b>2</b>
FALL CHURCH, VIRGINIA 22043-2555	SIZE A	CAGE NO N/A	DWG NO 20220802WVVLSTA.1	REV NONE	
(c) 2022, ALL RIGHTS RESERVED	SCALE N/A	AUGUST 2022		SHEET	



# EXISTING STRUCTURE – NO FAA NOTICE OR FCC ASR REQUIRED

DETERMINATION Results	
Structure does not require registration. The structure meets the 6.10-meter (20-foot) Rule criteria.	
Your Specifications	
NAD83 Coordinates	
Latitude	31-24-17.0 north
Longitude	086-00-53.7 west
Measurements (Meters)	
Overall Structure Height (AGL)	44.2
Support Structure Height (AGL)	41.1
Site Elevation (AMSL)	121.9
Structure Type	
TANK - Any type of Tank (Water, Gas, etc)	

T Z SAWYER TECHNICAL CONSULTANTS Tel.: (703) 848-2130 www.tzsawyer.com	FCC TOWERAIR RESULTS			
	WVVL (FM) STA ELBA, ALABAMA			FIGURE 3
FALL CHURCH, VIRGINIA 22043-2555	SIZE A	CAGE NO N/A	DWG NO 20220802WVVLSTA.3	REV NONE
(c) 2022, ALL RIGHTS RESERVED	SCALE N/A	AUGUST 2022		SHEET

**WVVL-STA RED CONTOUR**

FCC LMS File:  
FCC Facility ID: 19141  
NAD 83 Latitude: 31-24-17 N  
NAD 83 Longitude: 086-00-53.70 W  
ERP: 3.00 kW  
Channel: 266  
Frequency: 101.1 MHz  
Ant. RCAMSL Height: 166.1 m  
Horiz. Pattern: Omni

**WVVL-LIC BLACK CONTOUR**

FCC LMS File: 0000114336  
FCC Facility ID: 19141  
NAD 83 Latitude: 31-24-42 N  
NAD 83 Longitude: 085-57-32 W  
ERP: 1.40 kW  
Channel: 266  
Frequency: 101.1 MHz  
Ant. RCAMSL Height: 305.0 m  
Horiz. Pattern: Omni

**WVVL STA AND LICENSED SERVICE CONTOURS  
60 DBU F(50,50)**

STA IS CONTAINED WITHIN THE EXISTING LICENSE  
SERVICE CONTOUR

FIGURE 4

60 DBU F(50,50) LICENSED CONTOUR

60 DBU F(50,50) STA CONTOUR

3KW STA

WVVL-LIC

WVVL-STA

Coffee

New Brockton

LICENSED SITE  
STA SITE

TZSTC

2022

JULY-AUGUST

Map created on: 7/27/2022  
NED 3 Second US Terrain

Scale 1:500,000

0 10 20 30 km