

Technical Exhibit  
W251CP, Parkersburg, WV  
Mid Ohio Valley Radio Corporation

Ch. 251, 98.1 MHZ.

250 watts at 362.8 meters AMSL

39° 20' 17.7"; 81° 29' 56"

Mid Ohio Valley Radio Corporation recently purchased AM station WVAM, Parkersburg, WV from Fellowship Baptist Church of Vienna, WV. The purchase included this translator, which is a fill-in translator for WVAM. The translator antenna, as well as the transmit antenna for Fellowship's WNRJ (FM), Vienna, are both mounted on a tower at this location which is owned by Mid Ohio Valley.

The purpose of this application is to improve the coverage of translator W251CP. We propose a power increase from 175 to 250 watts. We also propose to increase the antenna height from 335 meters AMSL to 363 meters. The antenna would remain on the present tower located east of Vienna, WV. However, the present two bay antenna at 30 meters AG would be replaced with a single bay antenna near the top of the tower at 58 meters AG.

A fill-in translator for an AM station must have its 60 dbu coverage area entirely within the greater of the AM station's 2 mv/m daytime contour, or a twenty five mile circle from that AM tower. Presently the translator is about one mile from the AM antenna. As part of the sales agreement, Mid Ohio Valley must relocate the AM tower off church property. Accordingly, a minor change permit was filed for an approved to move the AM tower to a new location 2 miles south-south west of translator site. **Map 5** shows the present 60 dbu contour of the translator in green, and the proposed 60 dbu contour in blue. **Map 6** shows that even after the translator's coverage is increased, the translator's 60 dbu will remain entirely inside a 25 mile circle from the new site proposed for WVAM.

**Interference Concerns.** See Table 1, following this discussion, distances to co-and adjacent channel stations. **Co-Channel:** There are two co-channel stations of note, WKDD, Munroe Falls, Ohio, a Class B station some 207 km, 128 miles north of this site; and WBUL, Lexington, Kentucky, a Class C-1 station located about 295 km (183 miles) southwest of this site. **Map 1** shows that the 34 DBU contour of the translator is widely separated from the protected 54 DBU contour of WKDD. WBUL is too far away from this site for the translator's interfering 40 dbu contour to be a factor.

**Lower First Adjacent:** Three stations of interest here on the lower adjacent channel, Ch. 250, 97.9: WKKW, Fairmont, WV; WNCI, Columbus, Ohio, and WVBD, Fayetteville, WV.

**WKKW** This is a Class B station at Fairmont, WV, **Map 2** demonstrates that the 48 dbu interfering contour of the translator is separated by several miles from the protected 54 dbu contour of WKKW. **WNCI:** This station is 148.87 km (92.5 miles) NW of this site. WNCI is a grandfathered Class B station, using a directional antenna. That station radiates 70,560 watts towards Parkersburg at 120°, placing the 54 dbu contour 72.4 km out, at a point northwest of Shawnee, Ohio in Perry County. On the reverse bearing (299°) towards Columbus, the translator's 48 dbu contour extends 31.15 km. towards WNCI, with that contour falling on the Washington-Morgan county line east of Chesterhill, Ohio. The two contours are separated by about 46 km (29 miles).

**WVBD** is a class A station, the WVBD tower at 163 km. is too distant to be a factor here.

**Upper First Adjacent:** On the upper first adjacent channel, Channel 252, 98.3 MHz., are two Class A stations: WCEF, Ripley, WV, and WKNA, Logan, Ohio; and a Class B-1 station WPKV, a B-1, is licensed to Duquesne (Pittsburgh) Pennsylvania.

**WCEF and WKNA:** **Maps 3 and 4** show the relationship of the translator's 54 dbu contour towards the 60 dbu contour of these two stations. Again, there is wide separation between

the interfering contour of the translator and the protected service contour of these two stations.

**WPKV** The third station of note is WPKV, Duquesne, Pennsylvania, a Class B-1 station. WPKV is 186 km (115 miles) NE of this site, too far to be a factor in this discussion.

**Second and Third Adjacent Stations.** The translator's 100 dbu contour must not overlap the protected service contour of these stations. In the case of Class B stations, WQBE, Charleston, WV, and WOVK, Wheeling, the interfering contour is 94 dbu. The 100 dbu contour will extend only 890 meters (.89 km or a little more than a half mile), the 94 dbu, about 1800 meters. All of the full power stations of note are more than 70 km distant (40 miles or more), the closest station is second adjacent WILE-FM, a Class A station about 79 km north of this site at Byesville, Ohio.

There are two low-power stations on 98.5, Ch. 253: WCMO, Marietta, and WVHV, Harrisville, WV.

**WCMO** is a Class D (10 watt) station licensed to Marietta College, the station broadcasts from the co-owned WMRT tower located above the campus. This tower is 10.18 km north of the translator site, the WCMO 60 dbu extends only 2.78 km (or less than 2 miles) from the tower. Hence the interfering contour of the translator falls well short of this station's 60 dbu contour.

**WVHV-LP**, at Harrisville, WV, is 42.17 km (about 26 miles) east of the translator site. Section 74.1204 (a) (4) does not specify any second adjacent protection towards LP-100 stations. In any event, the 60 dbu contour of an LP-100 station usually only extends around 10 km from the tower.

**Canada:** The nearest point on the Canadian border is 270.5 km at 344°--which happens to be in the middle of Lake Erie off Sandusky, Ohio. As we've noted, the 34 dbu contour of the translator falls well south of the Canadian border, near Cambridge, Ohio. Of course, the Canadian border is also 85 kilometers north of co-channel WKDD. The WKDD tower is located between Akron and Cleveland.

**Environmental.** This application does not involve any change in the antenna site, or the construction of a new tower. Nor will there be any change in the height of the existing tower now used for this translator.

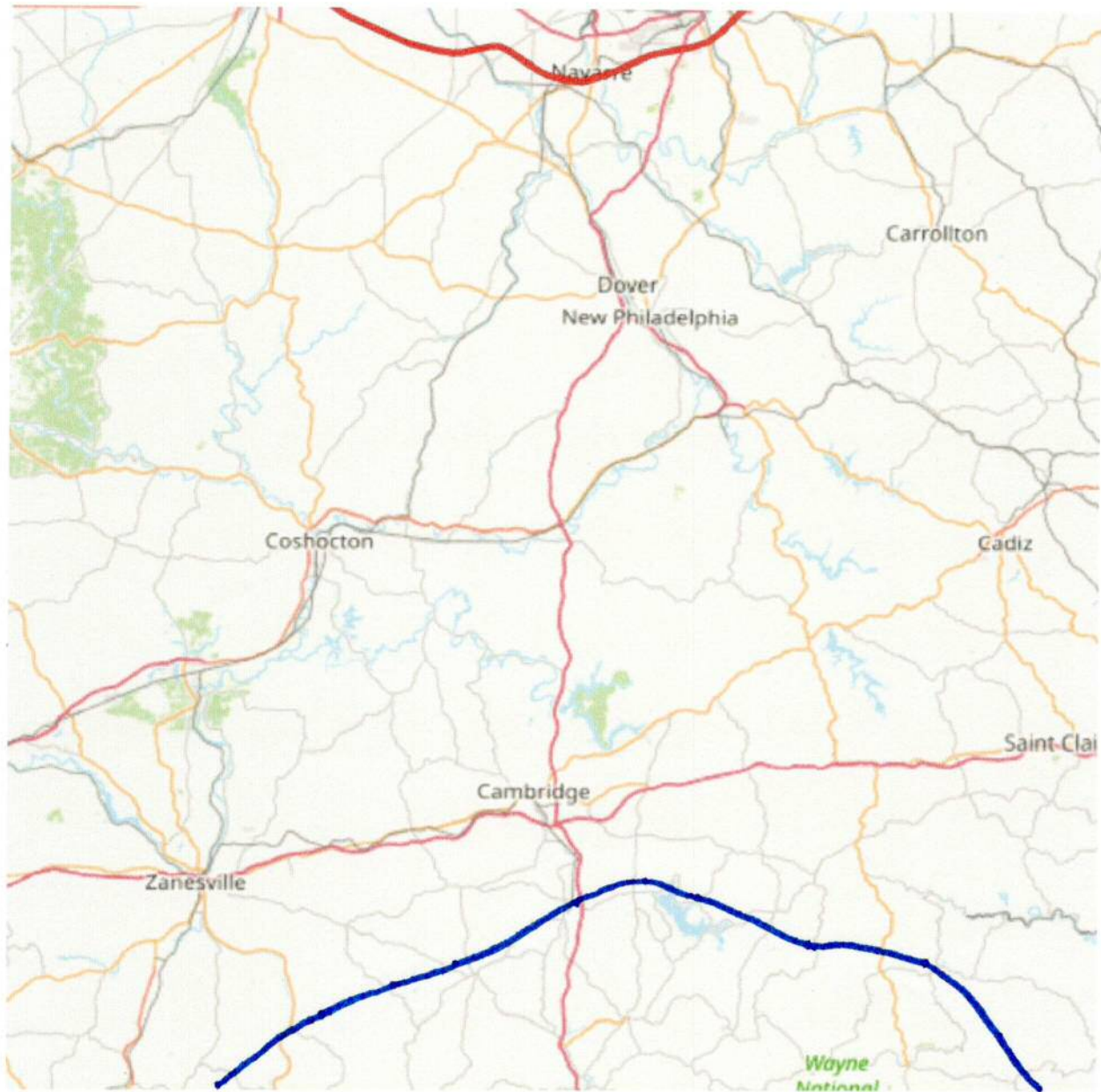
The tower (ASRN #1285964) is owned by the applicant, Mid Ohio Valley Radio Corporation. This site is 2.8 km or 8.5 wavelengths from WLTP (AM), a daytime directional station on 910 KHZ licensed to Marietta, Ohio. This tower was constructed for WVVV, Williamstown, WV in 2012. A method of moments study was conducted at that time, finding that this grounded tower would not affect the directional pattern of WLTP. In 2018, a 3 bay FM antenna was side-mounted below the WVVV antenna for station WNRJ, Vienna, WV. It was determined at that time that the addition of the WNRJ antenna and feedline would not constitute a substantial enough change to the tower to require further study under section 1.30002 of the FCC rules. Here the plans are to re-use an existing feedline now used for an RPU antenna. The present two-bay transmitting antenna at 100 feet above ground will be removed, and a new single bay circularly polarized antenna installed near the top of this tower.

**Table 1:** Distance and bearing towards co-channel and adjacent channel stations of note are shown. **Maps.** Map 1 shows the protected contour (in red) of co-channel WKDD, Munroe Falls, Ohio, and the projected 34 dbu interference contour, shown in blue, of the translator. Map 2 shows the protected contour of lower first adjacent channel WKKW, Fairmont, in green, and the 48 dbu contour (in blue) of the translator. Map 3 shows the protected contour of upper first adjacent channel WCEF, Ripley, WV in red, and the projected 54 dbu interfering contour of the translator in blue. Map 4 shows a different portion of this same 54 dbu interfering contour, this time towards the protected contour (in red) of upper first adjacent station WKNA, Logan, Ohio. Again, the interfering contour is in blue. Map 5 shows the present 60 dbu contour (green) and the proposed 60 dbu contour (blue) of the translator. Map 6 shows the proposed 60 dbu contour in green. A 25 mile circle, shown in red, is from the proposed new site for the WVAM antenna.

**Table 1**

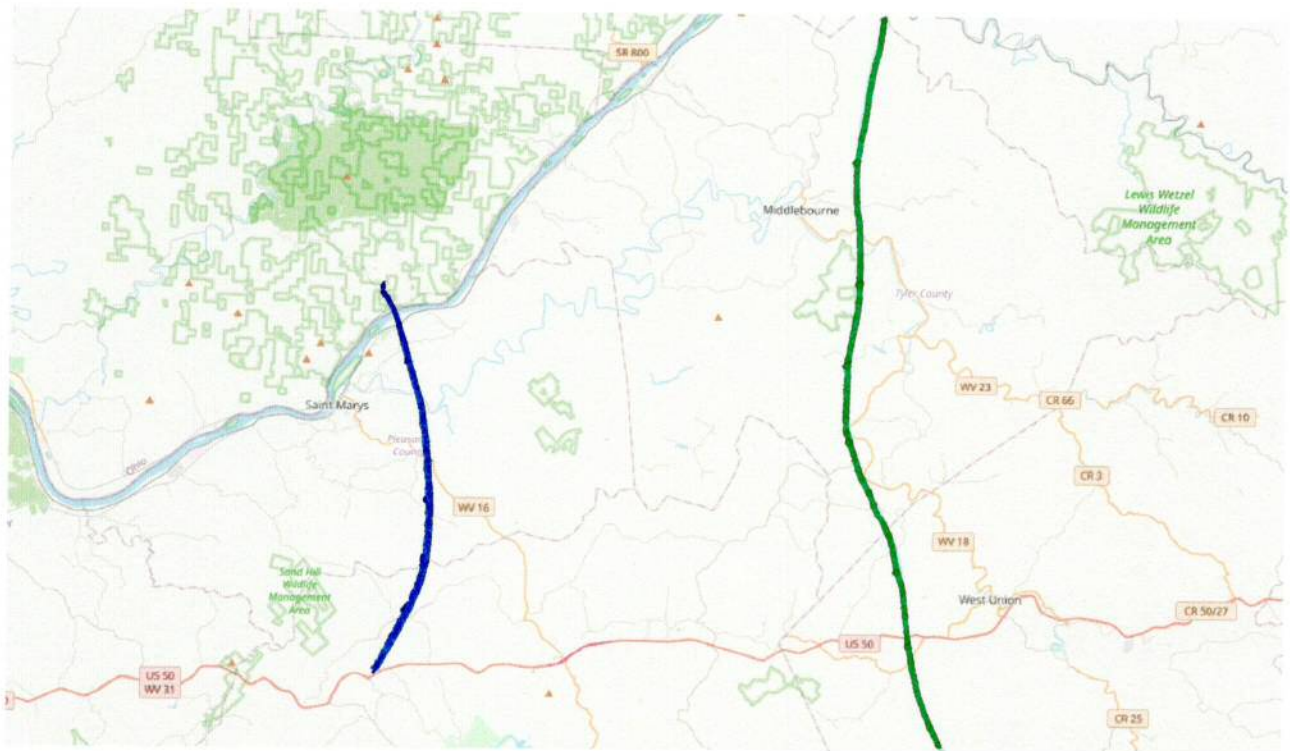
97.5	248B	WQBE	Charleston, WV	105.29 km @ 191°
97.7	249A	WILE	Byesville, Ohio	78.88 km @ 351°
	249A	WCJO	Jackson, Ohio	100.92 km @ 250°
97.9	250B	WNCI	Columbus, Ohio	148.87 km @ 299°
	250B	WKKW	Fairmont, WV	124.13 km @ 85°
	250A	WVBD	Fayetteville, WV	163.19 km @ 164°
98.1	251C1	WBUL	Lexington, KY	294.74 km @ 241°
	251B	WKDD	Monroe Falls, Ohio	206.74 km @ 359°
98.3	252A	WCEF	Ripley, WV	65.35 km @ 194°
	252A	WKNA	Logan, Ohio	79.16 km @ 286°
	252B1	WPKV	Duquesne, Pa	186.01 km @ 45°
98.5	253D	WCMO	Marietta, Ohio	10.18 km @ 29°
	253LP	WVHV	Harrisville, WV	42.17 km @ 110°
98.7	254A	WYRO	MacArthur, Oh.	96.94 km @ 258°
	254A	WRVZ	Pocatalico, WV	105.6 km @ 189°
	254B	WOVK	Wheeling, WV	103.56 km @ 37°

Map 1  
WKDD, 98.1, Munroe Falls, Ohio  
54 DBU  
(Red Contour)



W251CP, 98.1 Parkersburg  
Proposed 34 DBU  
(Blue Contour)

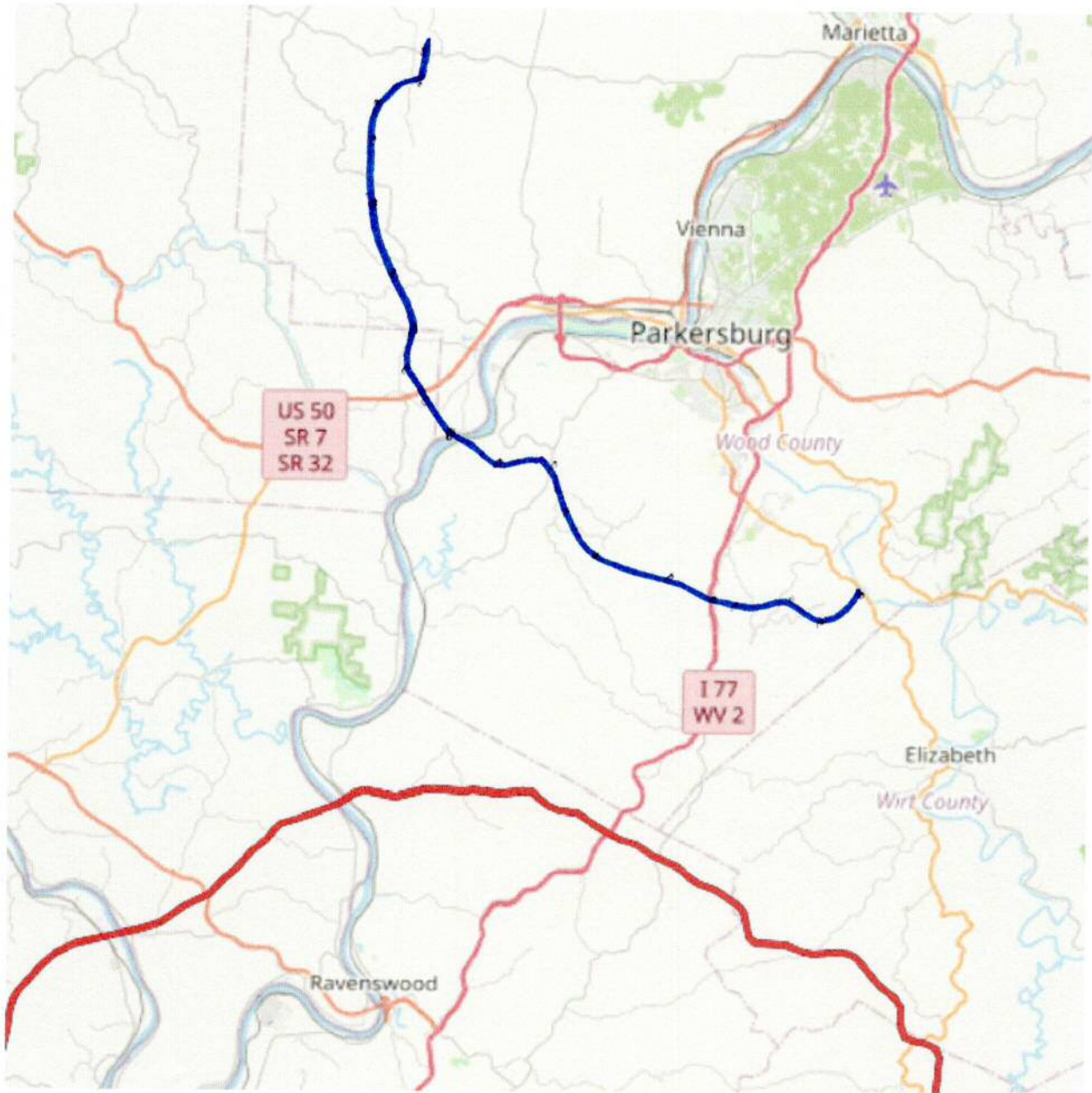
Map 2  
WKKW, 97.9, Fairmont, WV  
54 DBU  
(Green Contour)



W251CP, 98.1 Parkersburg, WV  
Proposed 48 DBU  
(Blue Contour)



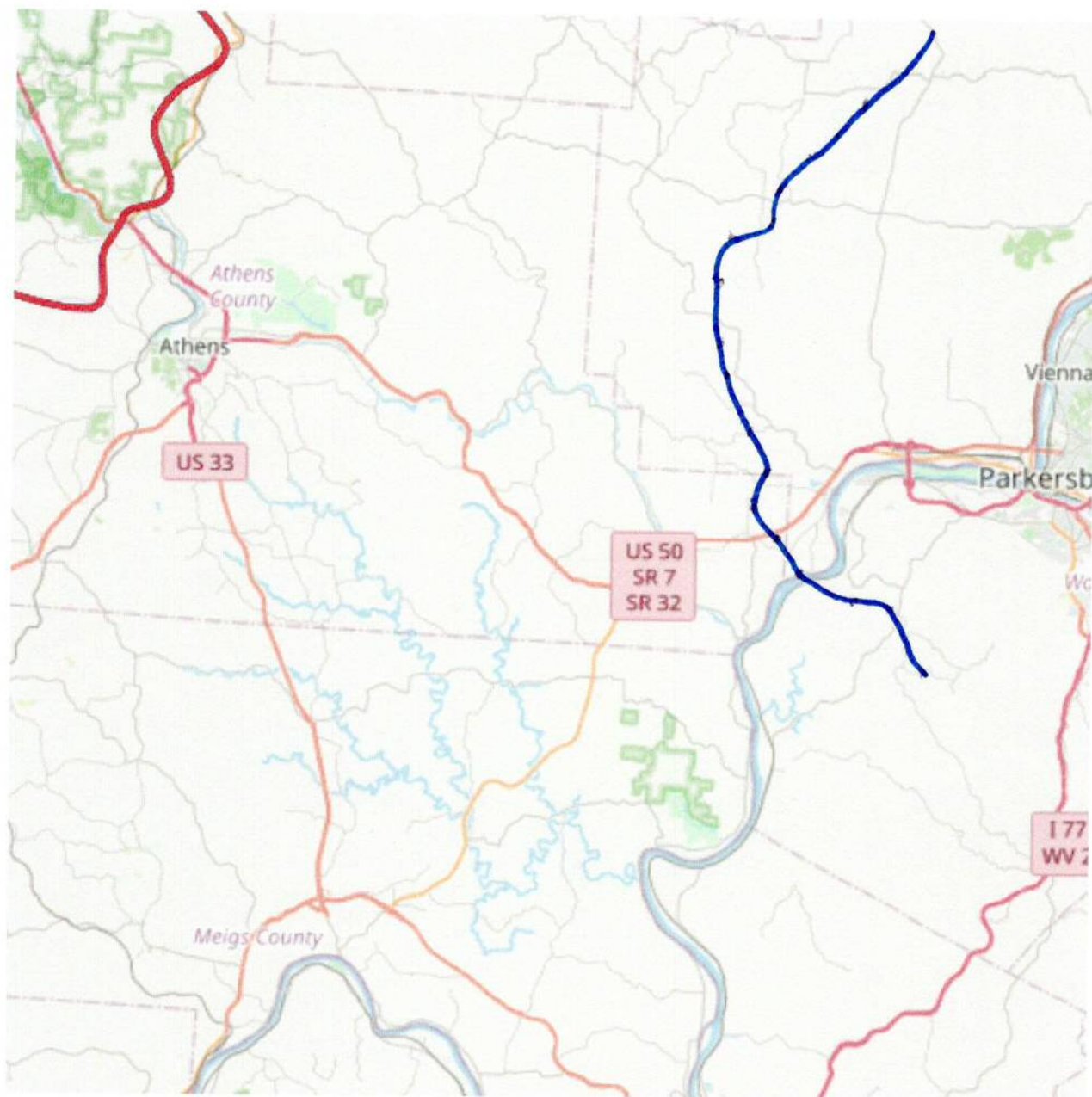
Map 3  
WCEF, 98.3, Ripley, WV  
60 DBU Contour  
(Red Contour)



W251, 98.1, Parkersburg, WV  
Proposed 54 DBU  
(Blue Contour)



Map 4  
WKNA, 98.3, Logan, Ohio  
60 DBU Contour  
(Red Contour)

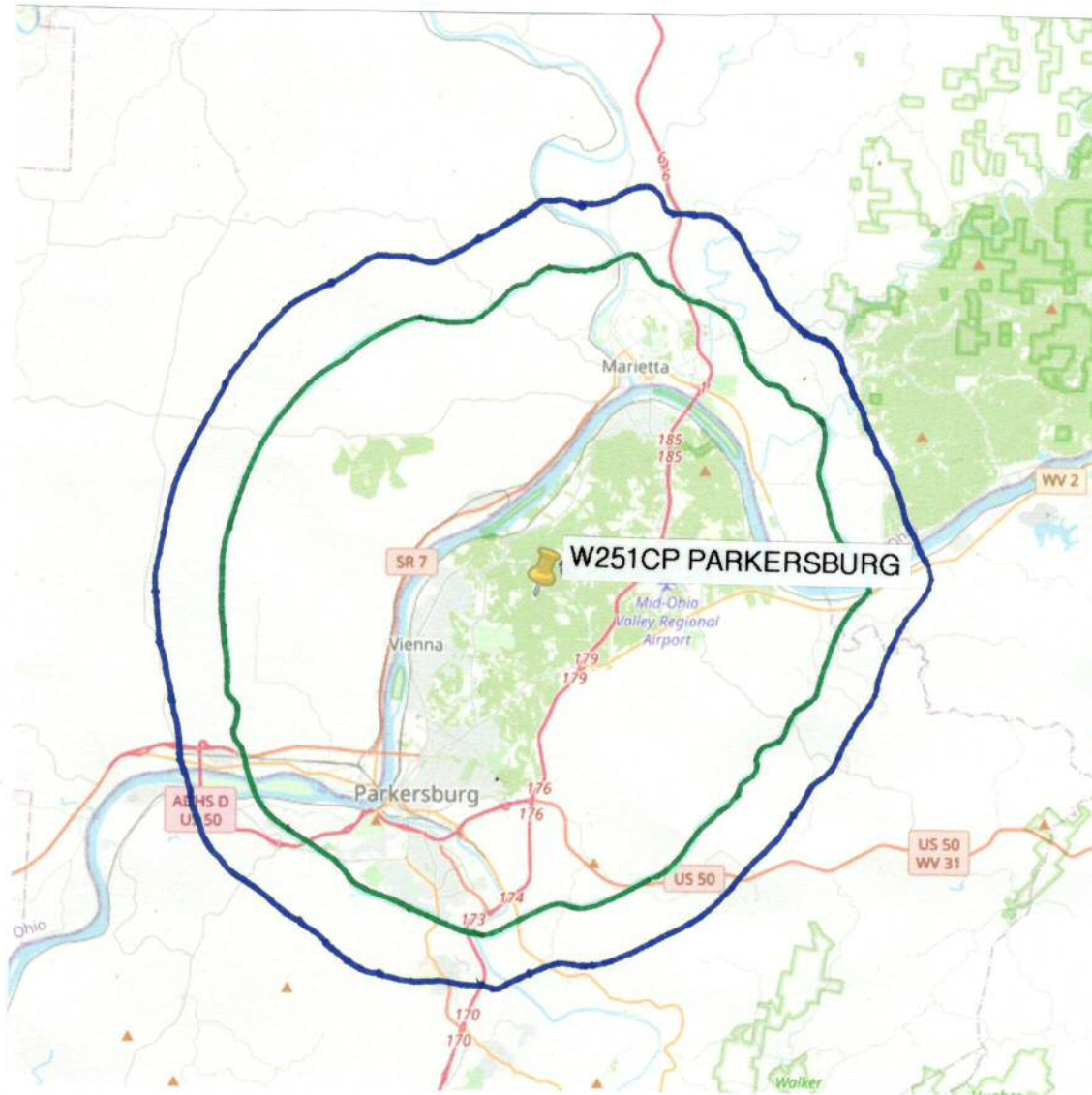


W251CP, 98.1 Parkersburg, WV  
Proposed 54 DBU  
(Blue Contour)

Map 5  
W251CP, Parkersburg WV

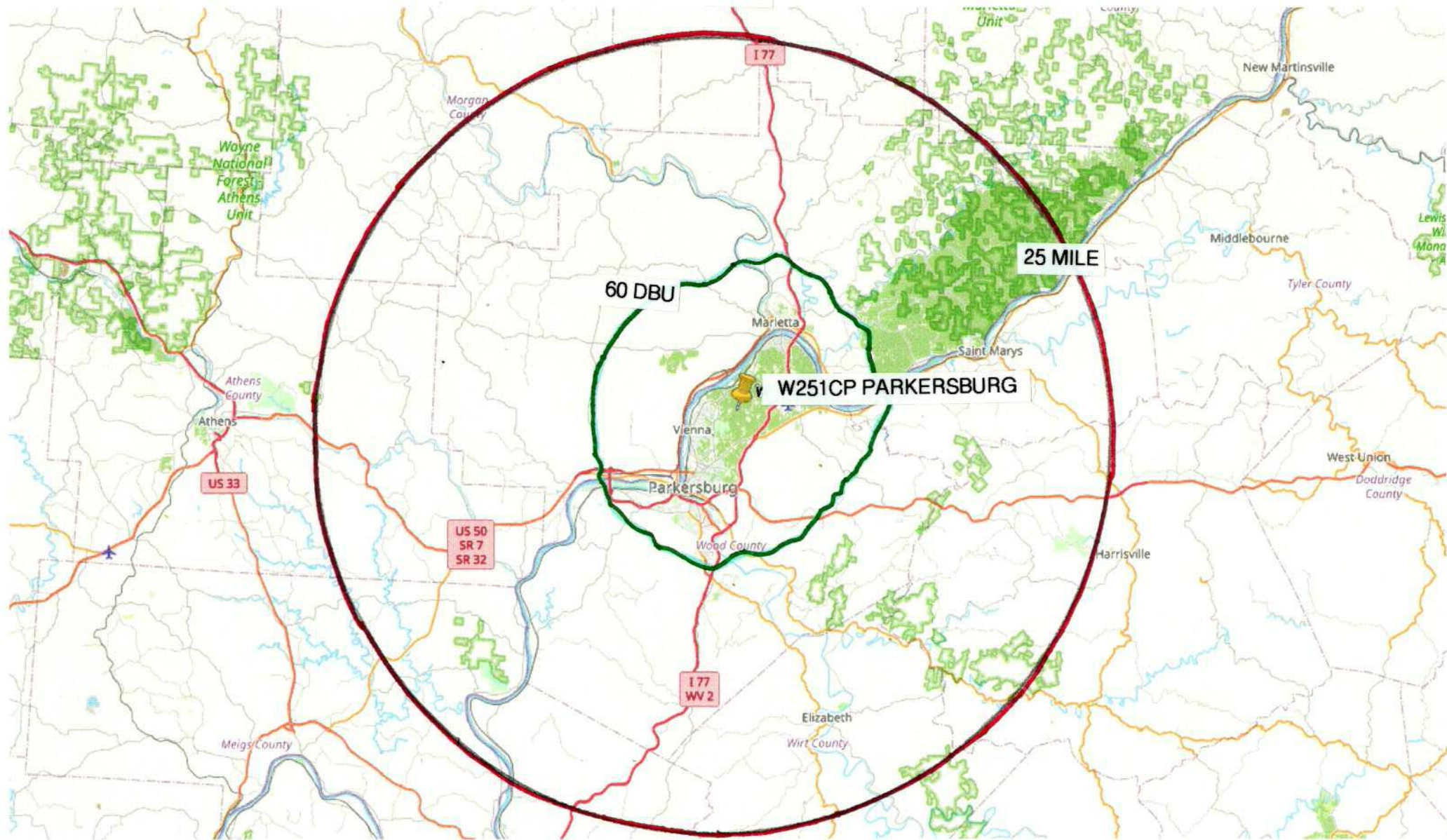
60 DBU Contours

Present Contour: Green  
Proposed Contour: Blue





MAP 6



W251CP PARKERSBURG