



WV 7 and Deckers Creek Blvd Intersection Area

Planning Study

Final Report

November 3, 2021

Background

This report is in response to the recommendation for intersection improvements on WV 7 at Deckers Creek Blvd/Mineral Ave, identified in the Morgantown Regional Bike and Pedestrian Transportation Plan. The recommendation includes a realignment of the Deckers Creek Trail crossing on Decker Creek Blvd and a pedestrian crossing island on WV 7 between Mineral Ave and Decker Creek Blvd. The preliminary engineering design for the recommendation is attached to this report.

The report is also an evaluation of the need to install a traffic signal on WV 7 at Deckers Creek Blvd. During the construction of Greenbag Rd & WV 7 intersection improvement project, WVDOH installed a temporary signal at the intersection, which led to community interest in installing a permanent signal at that location.

Study Area



Data Collection

The MMMPO collected traffic data at WV 7 & Hartman Run Rd intersection and WV 7 & Deckers Creek Blvd/Mineral Ave intersection. The data collected included pedestrian traffic, bicycle traffic, and vehicle turning movement counts.

Spring Count

WV7 & Hartman Run Rd Intersection:

- Tuesday, April 27. 7:30 AM – 9:30 AM, 11:00 AM – 1:00 PM, 4:00 PM – 6:00 PM
- Saturday, May 1. 10:00 AM – 1:00 PM, 3:00 PM – 6:00 PM

WV7/Deckers Creek Blvd/Mineral Ave:

- Wednesday, April 28. 7:30 AM – 9:30 AM, 11:00 AM – 1:00 PM, 4:00 PM – 6:00 PM
- Sunday, May 2. 10:00 AM – 1:00 PM, 3:00 PM – 6:00 PM

Fall Count

WV7 & Hartman Run Rd Intersection:

- Wednesday, September 8. 7:30 AM – 9:30 AM, 11:00 AM – 1:00 PM, 4:00 PM – 6:00 PM
- Saturday, September 11. 10:00 AM – 1:00 PM, 3:00 PM – 6:00 PM

WV7/Deckers Creek Blvd/Mineral Ave:

- Thursday, September 9. 7:30 AM – 9:30 AM, 11:00 AM – 1:00 PM, 4:00 PM – 6:00 PM
- Sunday, September 12. 10:00 AM – 1:00 PM, 3:00 PM – 6:00 PM

Vehicle turning movements were counted only on weekdays.

Traffic Data Summary

Total Number of Vehicles Entering the Intersection		Decker Creek – WV 7 – Mineral Ave		Hartman Run Rd – WV 7	
		Spring	Fall	Spring	Fall
AM Peak	7:30 – 8:30 AM	749	854	825	799
	8:30 – 9:30 AM	849	945	835	865
Noon Peak	11:00 AM – 12:00 PM	707	832	784	927
	12:00 – 1:00 PM	837	908	822	933
PM Peak	4:00 – 5:00 PM	1033	1093	1085	1216
	5:00 – 6:00 PM	1129	1123	1131	1108
Total		5304	5755 (4% increase)	5482	5848(3% increase)

Turning Movement on WV 7 by Percentage		WV 7					
		South-East Bound to Sabraton/I-68			North-West Bound to Downtown		
		AM Peak <i>Spring (Fall)</i>	Noon Peak <i>Spring (Fall)</i>	PM Peak <i>Spring (Fall)</i>	AM Peak <i>Spring (Fall)</i>	Noon Peak <i>Spring (Fall)</i>	PM Peak <i>Spring (Fall)</i>
Hartman Run Rd	LT	37% (25%)	29% (24%)	24% (27%)	1% (0%)	2% (2%)	2% (3%)
	TH	62% (73%)	67% (72%)	74% (71%)	61% (64%)	62% (64%)	71% (64%)
	RT	1% (2%)	4% (5%)	2% (2%)	38% (36%)	35% (34%)	38% (33%)
Deckers Creem Blvd	LT	15% (18%)	12% (14%)	12% (13%)	20% (26%)	14% (19%)	19% (31%)
	TH	62% (60%)	62% (60%)	64% (64%)	54% (52%)	54% (51%)	47% (46%)
	RT	24% (23%)	26% (25%)	24% (23%)	25% (22%)	32% (31%)	34% (22%)

Pedestrian / Bicycle Traffic		Crossing WV 7 at Mineral Ave	Crossing Decker Creek Blvd	Crossing WV 7 at Hartman Run Rd
Spring Count	Weekday (6 hours)	9	17	1
	Weekend Day (6 hours)	17	53	2
Fall Count	Weekday (6 hours)	6	23	0
	Weekend Day (6 hours)	15	75	0
Total		47	168	3

Crash Data Summary

There were 12 reported crashes in the study area from 2017 to 2019 (three years), based on data from the City of Morgantown and the WV Division of Highways. The location and types of collision are shown in the table below. There was one reported crash involving bicyclists at the WV 7 and Deckers Creek intersection in 2018. The database shows that the crash occurred at late night with no street light.

Location		Reported Crash				
Street	Intersecting Street	Single Vehicle Crash	Rear End	Right Angle	Angled Crash (other direction)	Total
WV 7	Deckers Creek Blvd	1			4	5
WV 7	Mineral Ave				1	1
WV 7	Hartman Run Rd		3	1	2	6

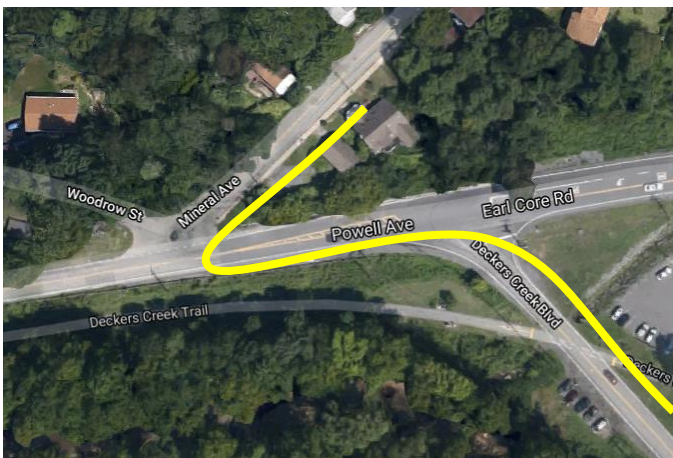
Major Findings

Motor Vehicles

- **No major delays at the signalized intersection near ALDI**
At the signalized intersection of WV7-Hartman Run Rd, nearly all traffic queues were cleared in every traffic signal cycle. When a signal failed to clear a traffic queue, there were 1 to 3 vehicles that failed to clear the intersection.
- **No major delays at the unsignalized intersection near Deckers Creek Blvd**
It was observed that the traffic gap on WV 7 was wide enough to allow SB traffic from Mineral Ave to merge without significant delay (more than 30 seconds). Due to the sightline being blocked by topography, it is difficult to identify the queue length on Mineral Ave.

There were occasionally 4-to-7-vehicle queues for NB traffic on Deckers Creek Blvd during the PM peak. All queues cleared within 1 minute.

- **Small turning radius for Left-turn traffic from Mineral Ave to WV 7**
Mineral Ave and WV 7 intersect at a skew, creating a tight turning radius for the left-turn traffic from Mineral Ave to WV 7; and right turn traffic from WV 7 to Mineral Ave. The turning movement is complicated by the steep slope on Mineral Ave approaching the intersection.
- **Traffic split at the two intersections**
While through traffic on WV 7 is the dominant movement, significant (more than 30%) traffic split at both intersections.
- **Short cut from the Greenbag Rd area to the Mileground/WV 705 area**
Nearly one-third of the NB traffic from Deckers Creek Blvd was to Mineral Ave. While the movement is considered a through movement, it consists of turning left to left turn to WV 7 and turning right to Mineral Ave, as shown in the graphic below. It appears that Deckers Creek Blvd and Mineral Ave is used as a short cut connection between the Greenbag Rd area and Mileground/WV705 area.



- **High percentage of truck traffic**

Approximately 15 percent of traffic on WV 7 during the 6-hour count on Tuesday and Wednesday was truck traffic.

Non-Motorized Vehicles

- **Pedestrians crossing WV 7**

MPO staff observed 47 pedestrians crossing WV 7 near the Mineral Ave intersection during the data collection period. Pedestrians used a make-shift path connecting the shoulder of WV 7 and the trail. The path is shown below.



- **Pedestrians crossing Deckers Creek Rd**

MPO staff observed 168 pedestrians and bicyclists crossing Deckers Creek Rd during the data collection period. The crossing point is shown below.



- **Other Observations**

- MPO staff identified about 30 people using the parking area for Deckers Creek rail trail along Deckers Creek Blvd on Sunday.
- Most bicyclists on the trail did not stop at the Deckers Creek Blvd intersection unless there was vehicle traffic present.

Daily Traffic Volume*

Road	Count Station	Annual Average Daily Traffic			Percent of Truck Traffic	Average Volume
		2017	2018	2019		
Hartman Run Rd	Hartman Run Rd at Southeast of Mileground Rd	8,500	7,800	7,700	n/a	7,800
WV 7 (Brockway Ave)	Brockway Ave at East of Pennsylvania Ave	8,300	8,300	9,300	19%	8,600
Deckers Creek Blvd	Estimated volume (calculated by dividing the 2021 PM peak hour volume by the PM peak hour ratio of count station 52 on Greenbag Rd at Southwest of WV 7 in 2019. The 2021 volume may be impacted by the pandemic in 2021.					3,221

* Based on MMMPO 2019 Annual Traffic Report.

Warrant Analysis

MPO staff conducted a warrant analysis for the WV 7-Deckers Creek Blvd-Mineral Ave intersection using the 6-hour traffic volume collected in the fall for the analysis. Based on the Federal 2009 Signal Warrant Standard, the signal warrant was not met. The warrant report is attached to this report.

Note: the warrant was met for 1 hour under the Four-hour Vehicle Volume analysis. The warrant requires 4 hours met to justify the installation of a new traffic signal.

Conclusion

The current traffic volume does not warrant the installation of a new signal at the WV 7 – Mineral Ave intersection or the WV – Deckers Creek Blvd intersection. However, the intersections require future consideration for improvement because:

- Significant through traffic from/to Deckers Creek Blvd and Mineral Ave creates a weaving movement on WV 7;
- The skewed intersection at Mineral Ave-WV 7 and the steep slope on Mineral Ave create potential safety and operational problems.

The volume of pedestrians crossing WV 7 at Deckers Creek Ave and Mineral Ave justify consideration of improving pedestrian safety at these locations, including installing a pedestrian island on WV 7 and modifying the crosswalk alignment on Deckers Creek Ave.

Next Step

The report will be shared with the community for comments. It will also be shared with the WV DOH to provide them with information for the potential intersection improvements.

Warrant 2: Four-hour Vehicular Volume

1: WV7-Deckers Creek Blvd-Mineral Ave

Intersection Information

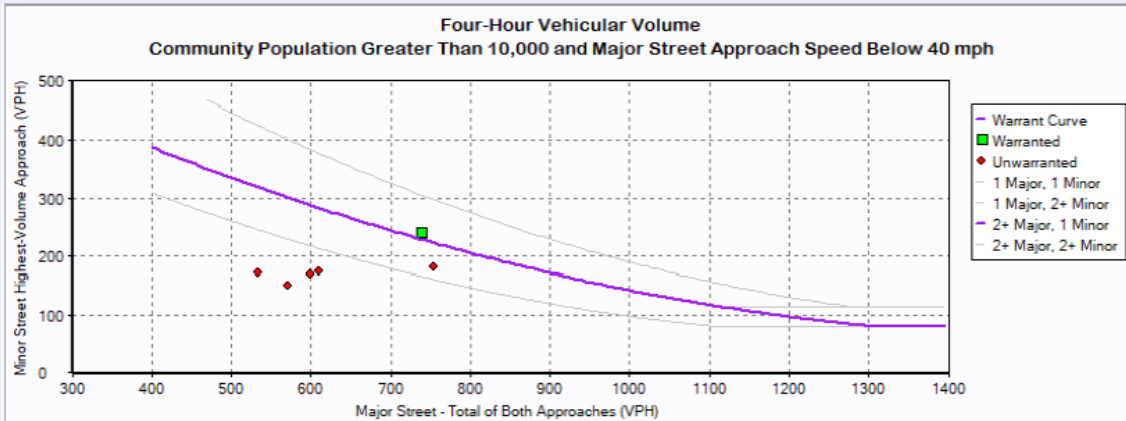
	Major Street	Minor Street
Street Name	WV 7	Mineral Ave
Direction	EB/WB	NB/SB
Number of Lane:	2	1
Approach Speed	30	30

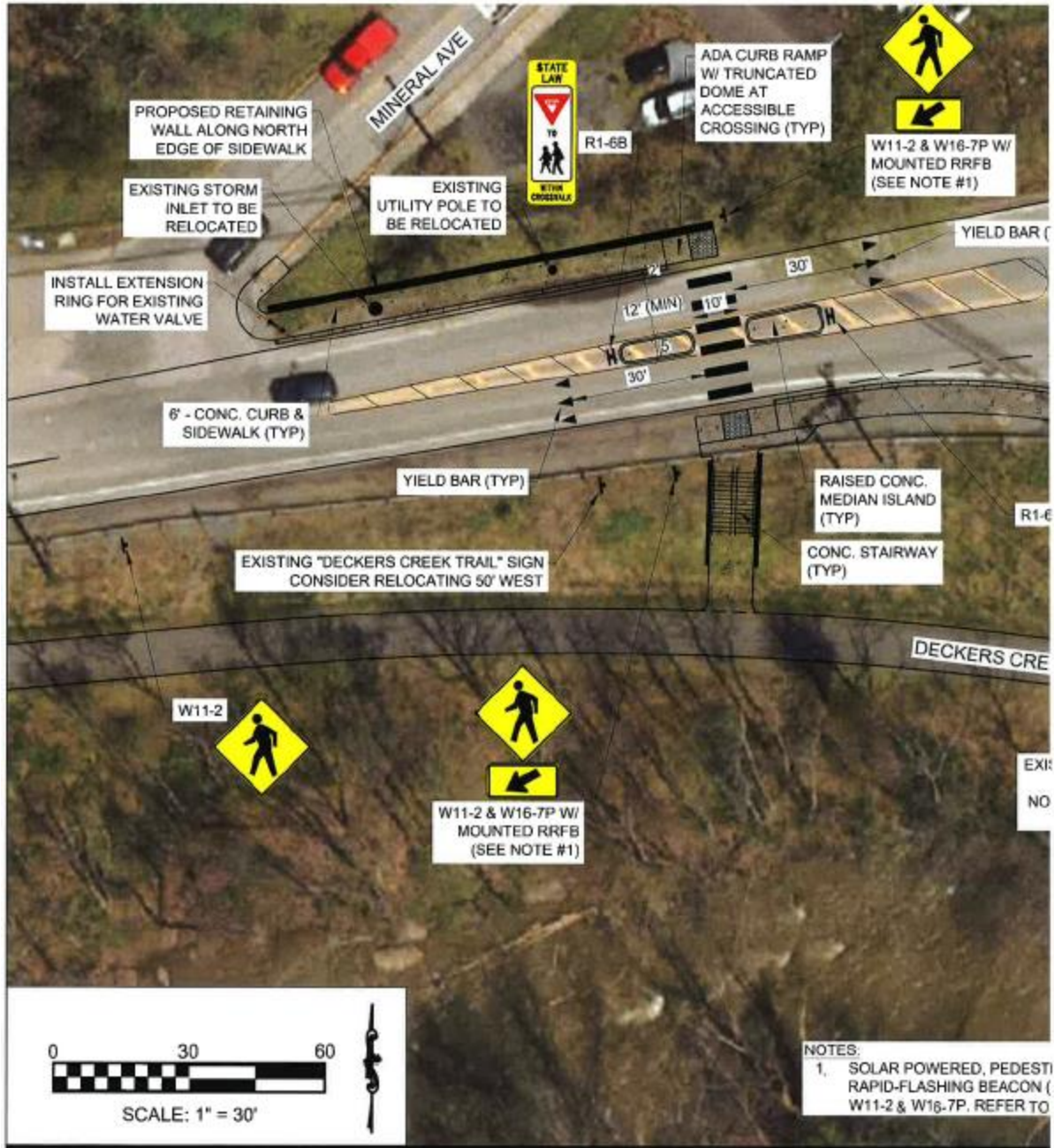
Warrant 2 Met? **No**

Details:

Notes 1 Hours met (4 required)

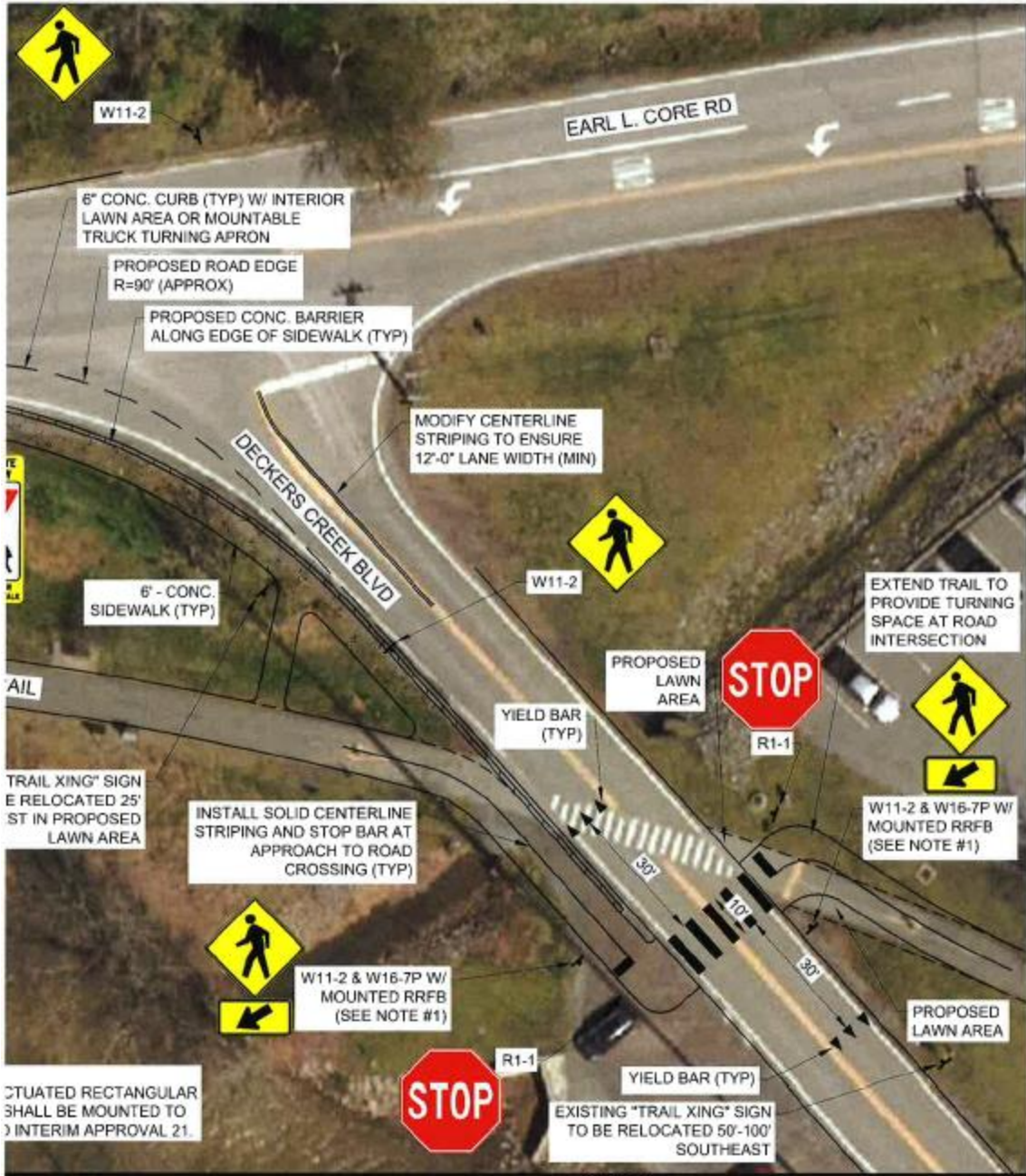
Low populatior **No**





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Figure No.
CLD-01

Title
Deckers Creek Trail - Mineral Ave
Pedestrian Safety Pilot Project

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CONCEPTUAL AND PLANNING PURPOSES ONLY