

September 20, 2017

Asif Mahmood
Principal Engineer
Essex County Department of Public Works
Division of Engineering
900 Bloomfield Avenue
Verona, New Jersey, 07044

Re: Speed Study – Pleasant Valley Way (CR 636)
West Orange Township, Essex County, New Jersey

Dear Mr. Mahmood:

As requested, NV5 has performed a series of speed studies on Pleasant Valley Way (CR 636) between Northfield Avenue and NJ Route 10. This letter report represents a summary of our findings.

Pleasant Valley Way (CR 636) is classified as an urban minor arterial and between Northfield Avenue and NJ Route 10. The cross section consists of two lanes in each direction near Northfield Avenue and near NJ Route 10. Between Parson Drive and Brook End Drive, the roadway consists of a single through lane with dedicated turn lanes where appropriate. On street parking is prohibited for the entire corridor length. The current statutory speed limit on Pleasant Valley Way is 50 mph south of Cornell Street (not posted) and posted 45 mph between Cornell Street and NJ Route 10. There is a School Speed when children are present of 25 mph in the vicinity of the West Orange Tennis Club and Golda Och Academy.

To determine the existing speed profile of Pleasant Valley Way, spot speed studies were conducted along the corridor on Wednesday, September 20, 2017 from 9 AM to 12 Noon. Approximately 100 vehicles, traveling at free flow speeds, were recorded at each location. The table below indicates the resulting 85th percentile speeds for each location.

Pleasant Valley Way – Observed 85th Percentile Speeds:

Location	Observed 85th Percentile Speed	
	Northbound	Southbound
Near Rand Drive	45 mph	45 mph
Near Cornell Street	45 mph	49 mph
Near Cedar Avenue	47mph	49.2 mph

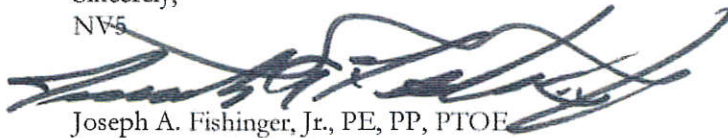
Speed profiles for each of the locations observed are attached. Further review of the speed profiles indicates that the 50th percentile (average) speed for each location is between 40 mph and 45 mph and the 25th percentile speed at each location is between 36.8 and 42 mph. This indicates that the majority of free flow vehicles are traveling the corridor in between 40 and 45 mph.

The MUTCD states that posted speed limits should be within 5 mph of the 85th percentile speed of free flowing traffic. The MUTCD further states that other factors; including road characteristics, presence of shoulders and driveways, pedestrian activity and grade should be considered when setting speed limits. Pleasant Valley Way is on rolling terrain with numerous residential streets and driveways to private homes. The road has narrow striped shoulders and sidewalk is present intermittently along the corridor. Also, as previously noted, a 25 mph school speed limit is in place along the highway.

Based on the observed free flow speeds, a posted speed limit of either 40 or 45 mph is appropriate. Considering the characteristics of the roadway and the adjacent land uses, this office recommends the speed limit for Pleasant Valley Way between Northfield Avenue and NJ Route 10 be revised to 40 mph in both directions for its entire length. The existing 25 mph school zone should remain. Utilizing the 40 mph speed limit in along this corridor sets the speed limit more in context with the characteristics of the roadway, including the limited shoulders and sporadic sidewalks.

Should you have any questions or would like additional information regarding this matter, please do not hesitate to call me.

Sincerely,
NV5



Joseph A. Fishinger, Jr., PE, PP, PTOE
Director, Traffic Engineering

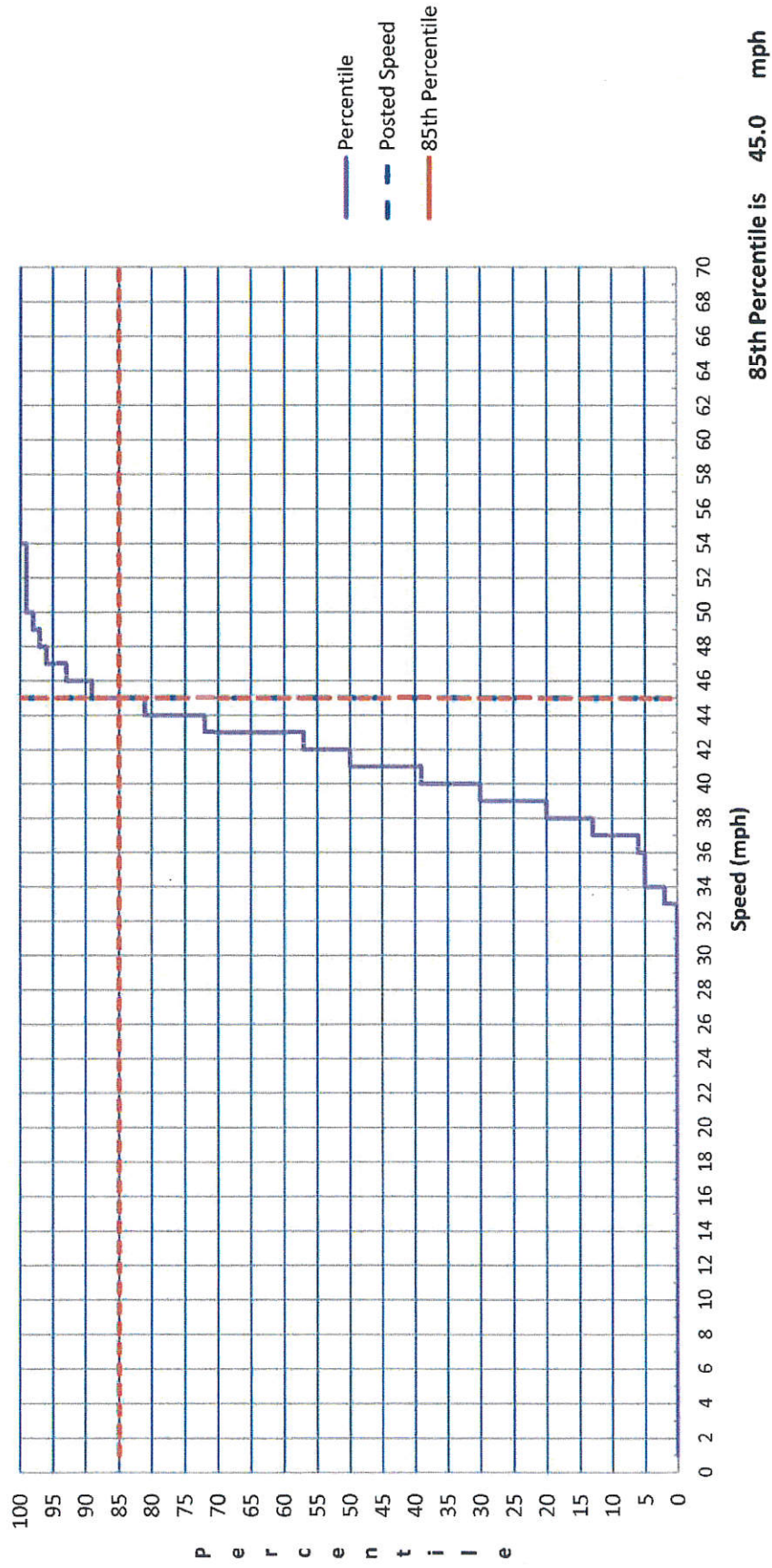
attachments

NV5

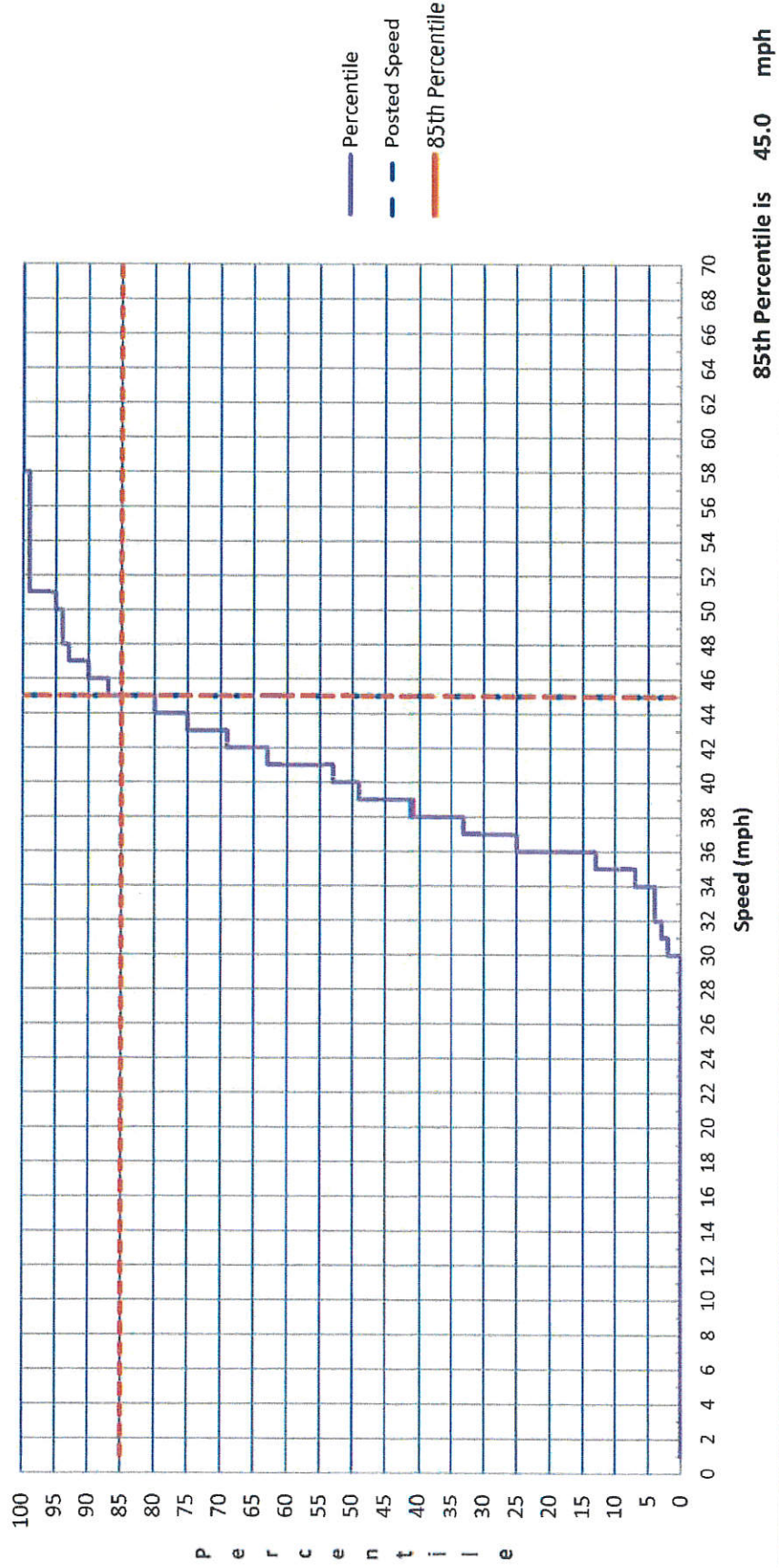
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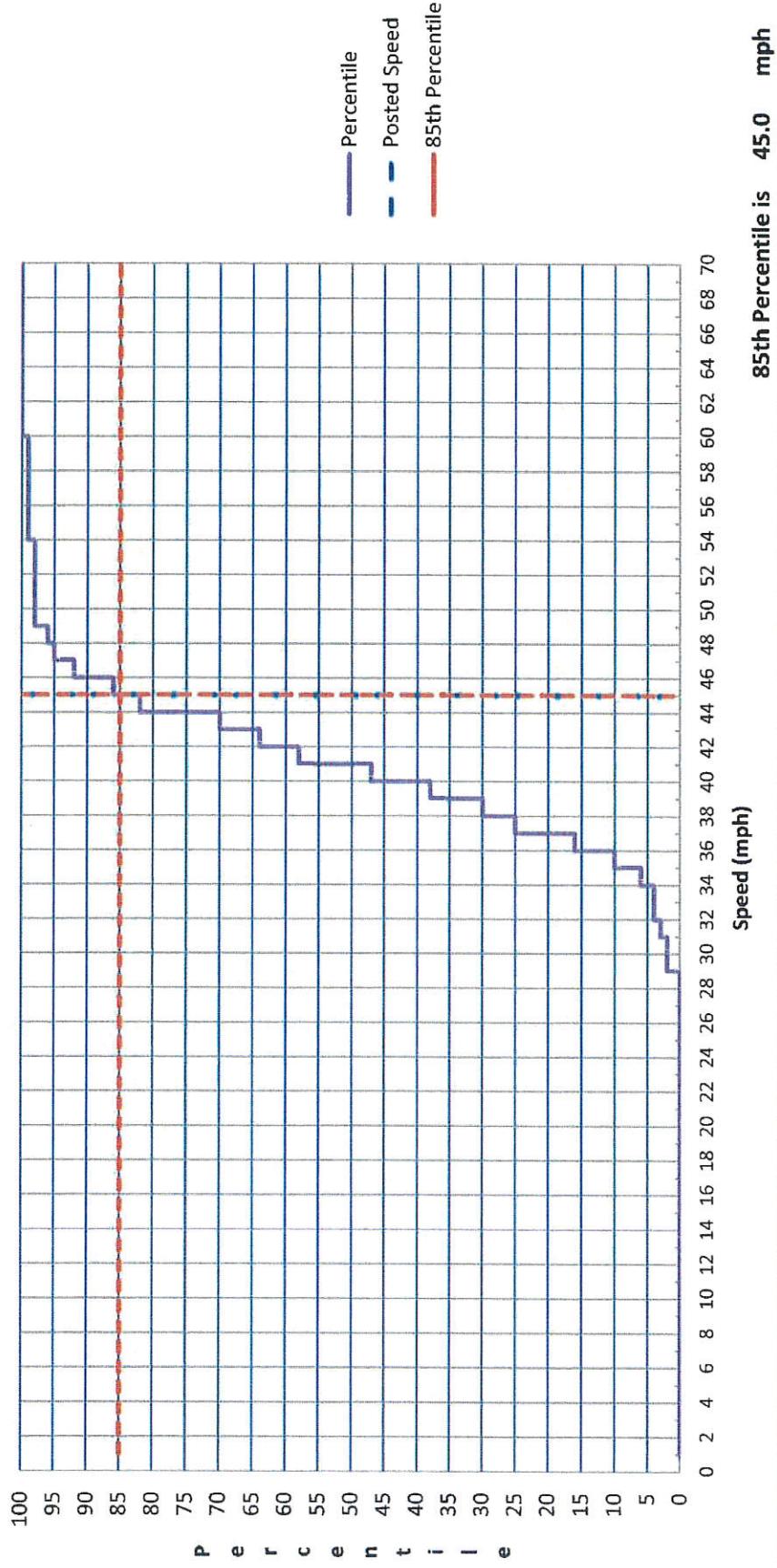
Pleasant Valley Way & Rand Drive (North Bound)



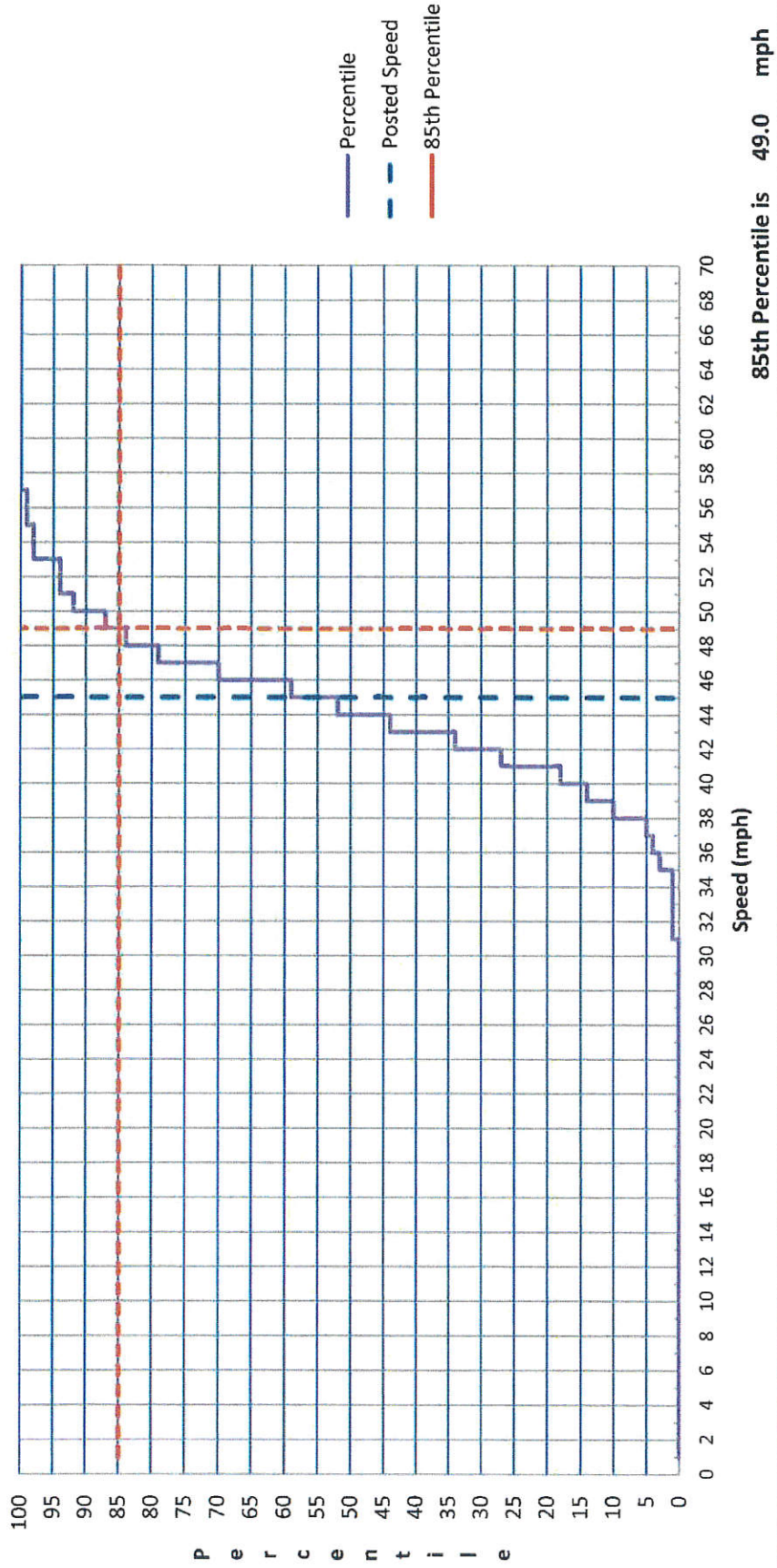
Pleasant Valley Way & Rand Drive (South Bound)



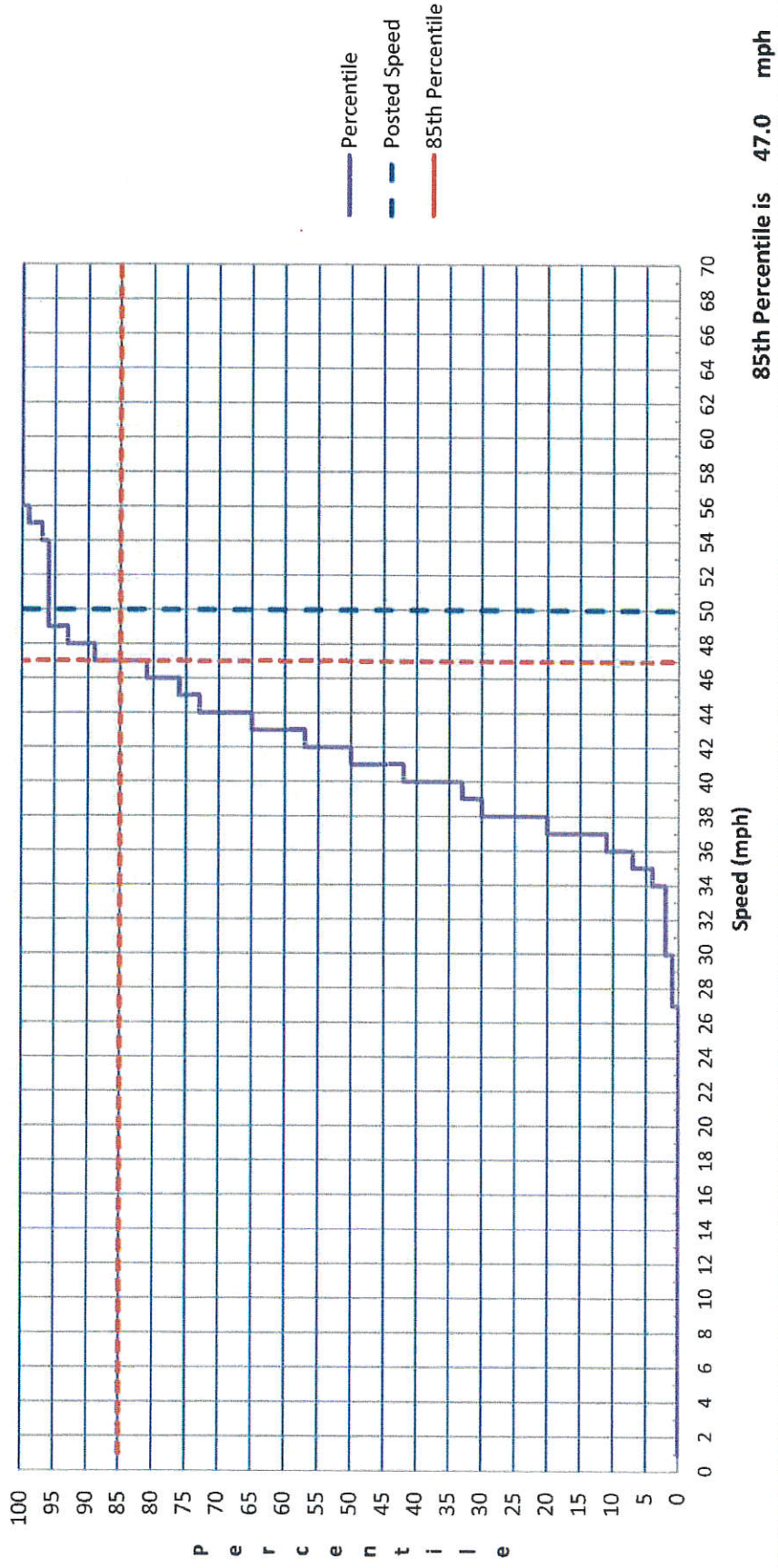
Pleasant Valley Way & Cornell St. (North Bound)



Pleasant Valley Way & Cornell St. (South Bound)



Pleasant Valley Way & Cedar Ave. (North Bound)



Pleasant Valley Way & Cedar Ave. (South Bound)

