



ERIE COUNTY COMPTROLLER

HON. STEFAN I. MYCHAJLIW

October 28, 2019

Commissioner William Geary
Department of Public Works
95 Franklin Street, 14th Floor
Buffalo, New York 14202

Dear Commissioner Geary:

While in the field making observations for another project, a member of our audit team observed a hazardous condition of which I wanted to make you aware.

In the past month, Lake Shore Road was the site of some road repairs. Near the section crossing Little Sister Creek, there appears to be a significant drop off from the pavement to the shoulder. Our audit team measured the vertical pavement-edge drop off (PEDO) to be 7 inches. In addition, the angle of the drop-off appears to be just over 60°. We took measurements at multiple spots near the intersection of Wendt and Lakeshore Roads. The large, steep drop-offs were observed at many spots along the repaved project, although measurements at other spots were not taken.

A 2006 AAA Foundation for Traffic Safety study recommends that highway agencies require routine comprehensive sampling of PEDO on their roads, suggesting that any drop-offs of 5.1 centimeters (2 inches) or more should be corrected.

The AASHTO book *A Policy on Geometric Design of Highways and Streets* (also known as the "Green Book"), states that regular maintenance should provide for a shoulder that is flush with the pavement surface. Unstable shoulders generally undergo consolidation over time, and the elevation of the shoulder tends to sink below the paved travel lane. The resulting drop-off can adversely affect drivers when they slip onto the shoulder.

The *Manual on Uniform Traffic Control Devices* provides recommendations for signs used to warn motorists of unexpected conditions. For example, if the pavement-edge drop-off is less than 7.6 centimeters (3 inches), a "Low Shoulder" sign should be used. If the PEDO exceeds 7.6 centimeters (3 inches), a "Shoulder Drop Off" sign is recommended.

In the 2004 FHWA report *Construction of a Safe Pavement Edge: Minimizing the Effects of Shoulder Dropoff*, FHWA's Wagner and GDOT researcher Yeonsoo Stanley Kim noted that PEDO is a common source of tort claims against highway agencies. The authors cite court cases where monetary judgments were awarded to motorists involved in PEDO crashes. In these cases, the transportation agencies were found liable for creating unsafe conditions and not warning about them.

Of added concern, the area observed on Lake Shore Road is immediately adjacent to a bicycle/pedestrian trail. As such, the PEDO not only puts motorists at increased risk, but also pedestrians and bicyclists.

Please note that this letter serves to put the county on notice of this hazardous condition. Because of that, I am copying the Department of Law on this correspondence.

I have attached photos of the measurement of the drop-off, and a photo of the larger section of road where the measurements were taken. Please note the metal post in the one photo, which may be a dangerous fixed object that may require attention as well.

Thank you for your attention to this matter. Please let me know your plan to address this recently created hazardous condition, so that we can reduce physical risk to pedestrians and motorists, as well as financial risk to the taxpayers of Erie County.

Sincerely,



Stefan I. Mychajliw
Erie County Comptroller

cc: Department of Law



Lake Shore Road – 7 inch Drop-off



Lake Shore Road - 62° angle Drop-off



Lake Shore Road – Near Intersection with Wendt Road