

City of Rochester Hills
Department of Public Services
Traffic Engineering Division

Traffic Study Summary
Cross Creek Subdivision – Section 02

September 21, 2021

CROSS CREEK BLVD TRAFFIC STUDY (Between Otter Dr & Sheldon Rd)

Background

The Cross Creek Homeowner's Association (HOA) requested that the CITY, perform a traffic study along Cross Creek Blvd. Three (3) speed counters were placed, two (2) located 175 feet west of Lakeview Dr & one (1) located 600 feet east of Lakeview Dr during the week of September 6, 2021.

The following is a summary of the crash, speed and traffic volume data:

Cross Creek Blvd. – Speeding and Volume Data

The speed limit for Cross Creek Blvd is signed and posted for residential prima facie speed limit of 25 MPH. Three (3) automatic traffic counters were placed on-site. The first two (2) speed studies were conducted immediately west of Lakeview Dr. The second study was conducted fronting house address #326 Cross Creek Blvd. Both of the above speed studies were conducted during the week of September 6, 2021 from Tuesday through Friday during dry weather conditions, and while school was in session.

The results of the speed studies are as follows for the 2021 & 2013 Study:

2021 Results:

Speed Study #1: 175 feet West of Lakeview Dr (EB Traffic) – Count ID: #1309

Average Speed = 21 MPH
85th % Speed = 26 MPH
Annual Average Daily Traffic (AADT) = 736 Vehicles Per Day (VPD)

Speed Study #2: 175 feet East of Lakeview Dr (WB Traffic) – Count ID: #1309

Average Speed = 26 MPH
85th % Speed = 29 MPH
AADT = 646 VPD

Speed Study #3: House Address #326 (WB & EB Traffic) – Count ID: #1450

Average Speed = 28 MPH
85th % Speed = **33 MPH** (EB = **33 MPH**, WB = **32 MPH**)
AADT = 1152 VPD (EB = 576 VPD, WB = 576 VPD)

2013 Results:

Speed Study #1: 175 feet West of Lakeview Dr – Count ID: #1309

Average Speed = 22 MPH

85th % Speed = 29 MPH (EB = 29 MPH, WB = 27 MPH)

AADT = 1472 VPD (EB = 775 VPD, WB = 697)

Speed Study #2: 600 feet East of Lakeview Dr - Count ID: #1450

Average Speed = 23 MPH

85th % Speed = **31 MPH** (EB = 31 MPH, WB = 29 MPH)

AADT = 1338 (EB = 740 VPD, WB = 598 VPD)

*Annual Average Daily Traffic (AADT)

**Vehicles Per Day (VPD)

A potential speeding concern exists when the 85th percentile speed exceeds 31 MPH. As depicted above, the 2021 Cross Creek Blvd speed study #3 is at 31 MPH. When compared to the 2013 study at Count #1450, there is an increase in speed of two (2) MPH, but a reduction in average volume. Count #1309 exhibits both a reduction in speed, and in volume.

City residential streets having a chronic speeding issue usually have average speeds of 27 MPH, or greater, and 85th percentile speeds in excess of 31 mph. The percentile speeds were during morning peak hour periods from 7-8 AM & 4:30-5:30 PM afternoon. It should be noted that Cross Creek Blvd was originally designed and constructed as a collector roadway, which typically carry higher amount traffic volumes when compared to a local road. 36 feet vs 27 feet pavement cross-sections.

Crash History Data Summary

Transportation Improvement Association (TIA) crash data report attached.

- 2017 – 1 (improper backing up)
- 2018 – 1 (improper backing up)
- 2019 – 1 (snow)
- 2020 – 1
- 2021 – 1

A traffic crash concern may exist if there are three (3) or more crashes at a spot location within a 12 month period, or if there are five (5) or more crashes within a two (2) year period. Weather related and parked vehicle crashes do not contribute to this total, as they are the result of improper backing, or in collision with a stationary object such as a signpost, or mailbox. In addition, the recorded crashes did not result in a known injury.

Conclusion / Recommendations

Cross Creek Blvd meets the threshold for consideration to have speed hump installed on the basis of Study #3 meeting the threshold. Study locations #1 and #2 were below thresholds. If the HOA desires to pursue the installation of speed humps along Cross Creek Blvd from the end of the boulevard (Otter Dr) to Sheldon Road, our office will require a supporting HOA Board resolution for their placement at a 50/50 cost share. Also required is copy of letter notifying all residents within Cross Creek Subdivision that speed humps are being considered for above road segment of Cross Creek Blvd, along with signed petition from all residents abutting proposed speed hump locations.

The results of this study are valid for three (3) years prior to another requested study being conducted. Alternate measures that may be taken include sending HOA notifications to residents reminding them to be mindful of their speeds and requesting a speed cart be placed by the Oakland Counter Sherriff's Office (OCSO).

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