



TO: JEFF HERCZEG, DIRECTOR OF PUBLIC WORKS
FROM: REBECCA RUNKEL, PROJECT ENGINEER
SUBJECT: 9 MILE ROAD AND NAPIER ROAD INTERSECTION
DATE: OCTOBER 2, 2024

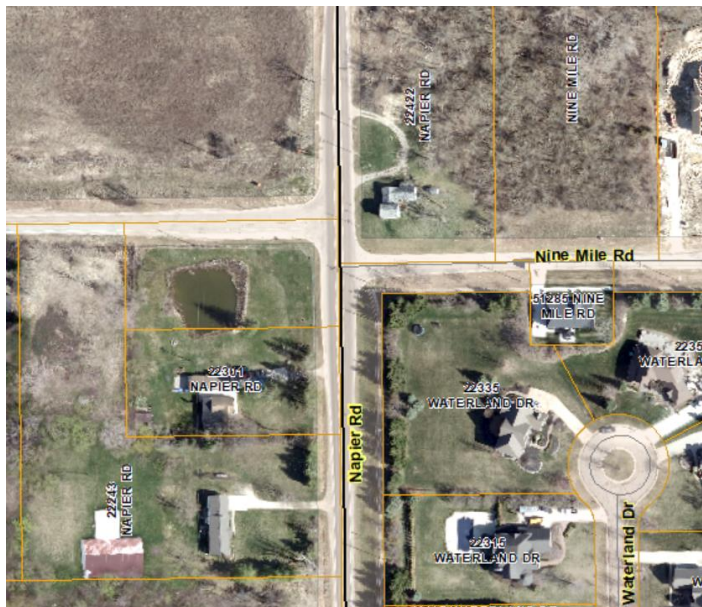
MEMORANDUM

Mayor and Council –

Per the conversation at the last meeting, please see the following correspondence regarding the Napier/9 Mile intersection. Included in this report (Pg. 89 of this item) from RCOC is the intersection crash report from the Transportation Improvement Assoc. (TIA)

- Victor

The intersection of Napier Road and 9 Mile Road was discussed at City Council due to concerns from residents over the safety of the intersection. Napier Road is under the jurisdiction of the Road Commission of Oakland County (RCOC) and borders Lyon Township to the west. The recent paving of Napier Road along with new subdivision developments going in on the Lyon Township side has led to increased traffic. Currently, there is no signal or stop control for northbound and southbound traffic on Napier Road, which has a 45 mph speed limit. The eastbound and westbound approaches on 9 Mile Road are under stop control, however, they are staggered as shown below.



DPW staff recently met with the RCOC and discussed the intersection. The RCOC provided the attached intersection study from March 2024 which summarizes current traffic data, crashes, site constraints, and preliminary concepts for improvement. Detailed traffic counts and crash data can be found in the study. A summary of key points is as follows:

- There were 9 crashes from January 1, 2020, to October 31, 2023 (22 reported crashes since 2014). 44% of these crashes were angle crashes. Most of these occurred in the eastbound direction. Drivers were attempting to turn left onto Napier Rd and failed to yield to oncoming traffic, these drivers did not stop for the

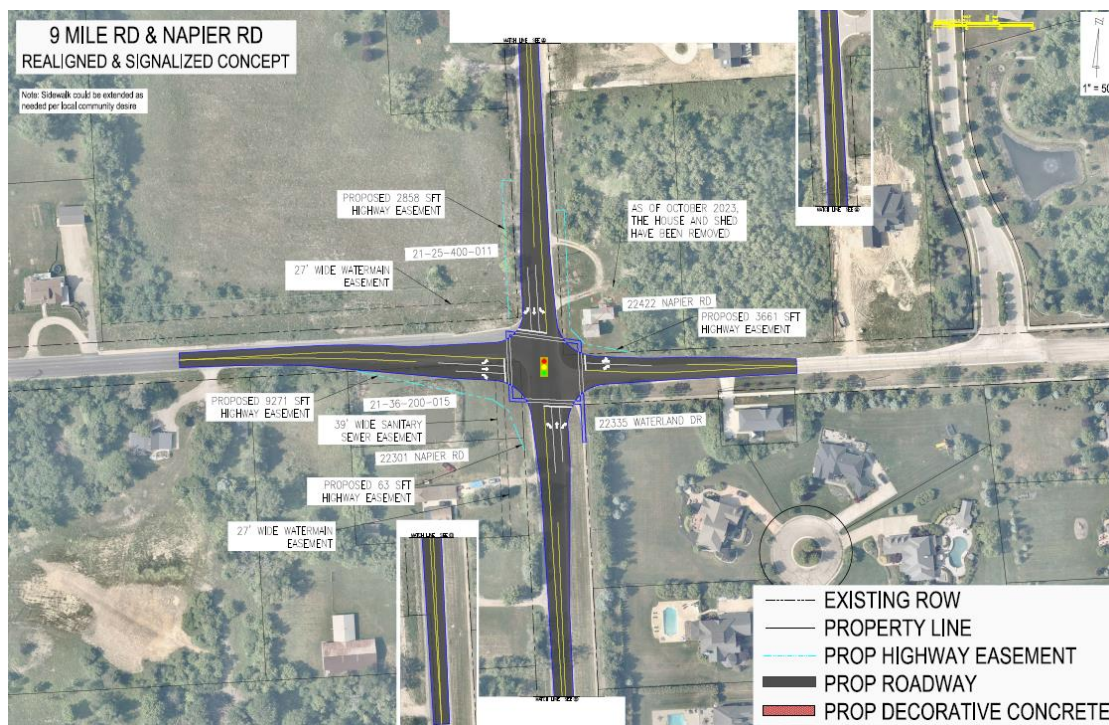
stop sign. All crashes, except for one, were during the day under dry pavement conditions. The exception was one during snowy conditions.

- There were no pedestrian crashes.
- There were two crashes which involved bicyclists. Both crashes resulted in minor injuries, and it was determined that the bicyclists were not following proper lane use requirements.
- There are no marked pedestrian crosswalks because there are no non-motorized facilities on any of the four quadrants of this intersection.
- The intersection currently does not meet warrants for a traffic signal. If a traffic signal were to be installed, significant geometric changes would be needed at the intersection. Including re-aligning the intersection.
- It ranks 48 out of 780 in the RCOC's unsignalized location list.

The RCOC held a project stakeholder meeting on August 9, 2023, with representatives from the RCOC, Lyon Township, and Novi. In March of 2024 the stakeholders met again to review the attached study. Three preliminary concepts were proposed:

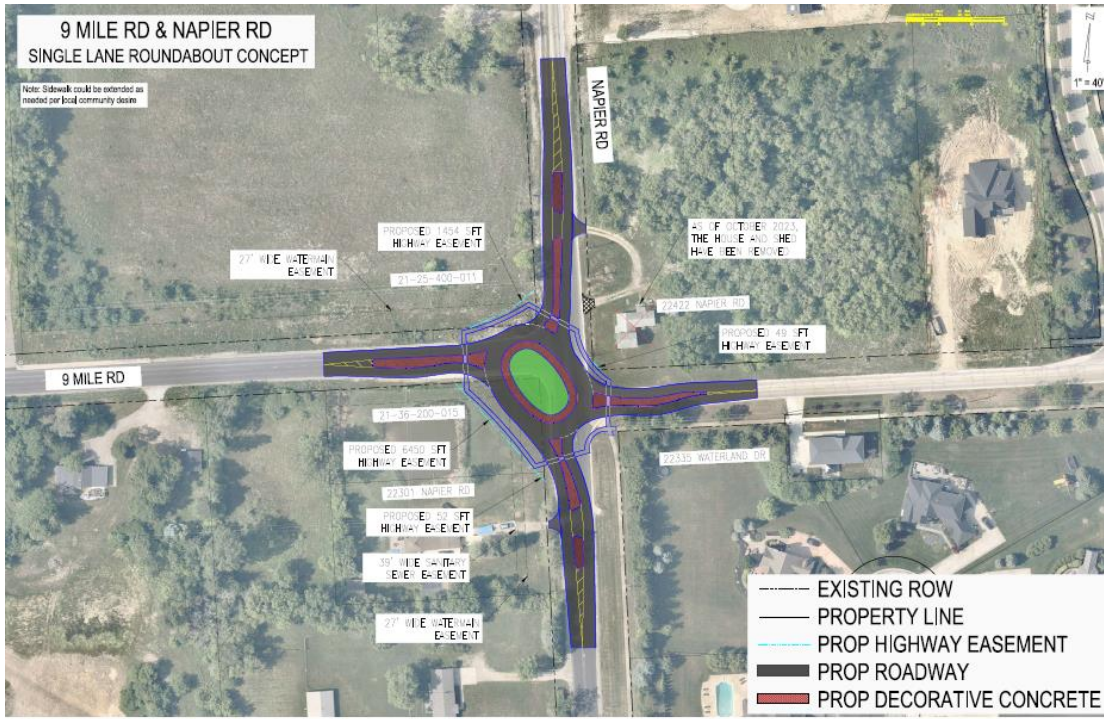
1. Realigned and Signalized Intersection

Estimated total construction cost = \$3,413,303



2. Single Lane Roundabout Intersection

Estimated total construction cost = \$1,997,869



3. Peanut Roundabout Intersection

Estimated total construction cost = \$2,342,093



Stakeholders in attendance at the public meeting were in favor of a roundabout solution. The realigned and signalized intersection concept would involve features that increase intersection crash risk severity. The single lane roundabout intersection concept would improve capacity and reduce crash risk severity. The peanut roundabout intersection concept would also improve capacity and reduce crash risk severity, but it has a larger footprint than a single lane roundabout.

Currently, the RCOC has not identified funding or a construction year. The roundabout concepts, specifically the single lane roundabout would provide the best cost-benefit time of return. City staff will continue to work with RCOC on moving a project forward at this location to address the safety concerns, however, a project is not currently budgeted in the Capital Improvement Program. In the interim, staff can also request additional evaluation of other safety measures with RCOC.

Per City Council requests the most recent Transportation Improvement Authority crash data for Novi (used in the study) is also attached herein.