



MIDDLETOWN
Rhode Island

TOWN ADMINISTRATOR

TOWN OF MIDDLETOWN

350 East Main Road, Middletown, RI 02842

(401) 842-6500 | MiddletownRI.com

To: Members of Middletown Town Council

From: Shawn J. Brown, Town Administrator 

Date: February 27, 2024

Re: RIDOT Engineering Report: Proposed Road Diet on East Main Road

The RI Department of Transportation hired a consulting engineer firm to study the feasibility of reconfiguring the northern end East Main Road in Middletown with a road diet. Attached is the analysis of VHB from last summer, which looked at traffic counts, travel time, access, as well as safety and reduced speeds.

RIDOT and town administration has been proactive in looking at improvements to this stretch of East Main Road to enhance vehicle, bicyclist and pedestrian safety. We will continue to look for ways to induce traffic calming and other measures to manage the flow of traffic.



To: Sean Raymond, P.E.
Managing Engineer
Office of Safety
Rhode Island Department of
Transportation

Date: July 28, 2023

Memorandum

Project #: 72700.05

From: Amphone Soupharath
VHB

Re: Road Diet: East Main Road from Mitchell's Lane to Wyatt Drive
Middletown, RI

VHB has completed a feasibility evaluation of a road diet along East Main Road in Middletown, RI. The road diet consists of converting the existing narrowed four lanes roadway between Mitchell's Lane and Wyatt Drive to three lanes roadway with one through lane in each direction and a two way left turn lane (TWLTL). The evaluation assumptions and results are provided below.

- Based on available traffic counts, Summer (July) traffic volumes are historically 20% higher than the Spring (March). Analysis included both the Spring (baseline) and Summer conditions (highest volumes).
- The peak hour traffic volumes in the southbound direction are approximately 1350 vehicles in the Spring and 1600 vehicles in the Summer. In the northbound direction, the peak hour traffic volumes are 1250 vehicles in the Spring and 1500 vehicles in the Summer.
- Today (4 lanes), it takes about 2-3 minutes to travel to/from Mitchell's Lane to Wyatt Road and takes about 2-3 minutes to travel to/from Oliphant Lane and Turner Road.
- With the proposed road diet, it is expected that additional delay would be added. Please see the speed maps and travel times summary graphics on the following pages.
 - Spring: Travel time from Mitchell's Lane to Wyatt Road is expected to increase from 2-3 minutes to 4-5 minutes during the AM peak hour. The travel time from Turner Road to Oliphant Lane is also expected to increase from 2-3 minutes to 5-6 minutes.
 - Summer: Travel time from Mitchell's Lane to Wyatt Road is expected to increase from 2-3 minutes to 5-6 minutes during the AM peak hour. The travel time from Turner Road to Oliphant Lane is also expected to increase from 2-3 minutes to 6-10 minutes. The Travel time from Wyatt Road to Mitchell's Lane is expected to increase from 2-3 minutes to 4-5 minutes.
- With the increased in traffic volumes in the Summer, the road diet (reducing the number of through lanes from two to one in each direction) would create vehicle queue to spill back to Mitchell's Lane in the southbound direction and queue spill back to Wyatt Road in the northbound direction during the peak hour periods. With the steady flow of traffic in the northbound direction in one lane at the intersection with Turner Road, the vehicles turning in and out of Turner Road will be very difficult and expected to create long queue on Turner Road.

In addition to the above traffic operation, below are some of the pros and cons to consider.

Pros:

- With the reduced number of lanes from four to three and the reduced speed, there will be less lanes to cross East Main Road and there will be room for shoulders on each side.
- The addition of a road diet with two-way left turn lane would allow for turning vehicles to get out of thru vehicle paths.

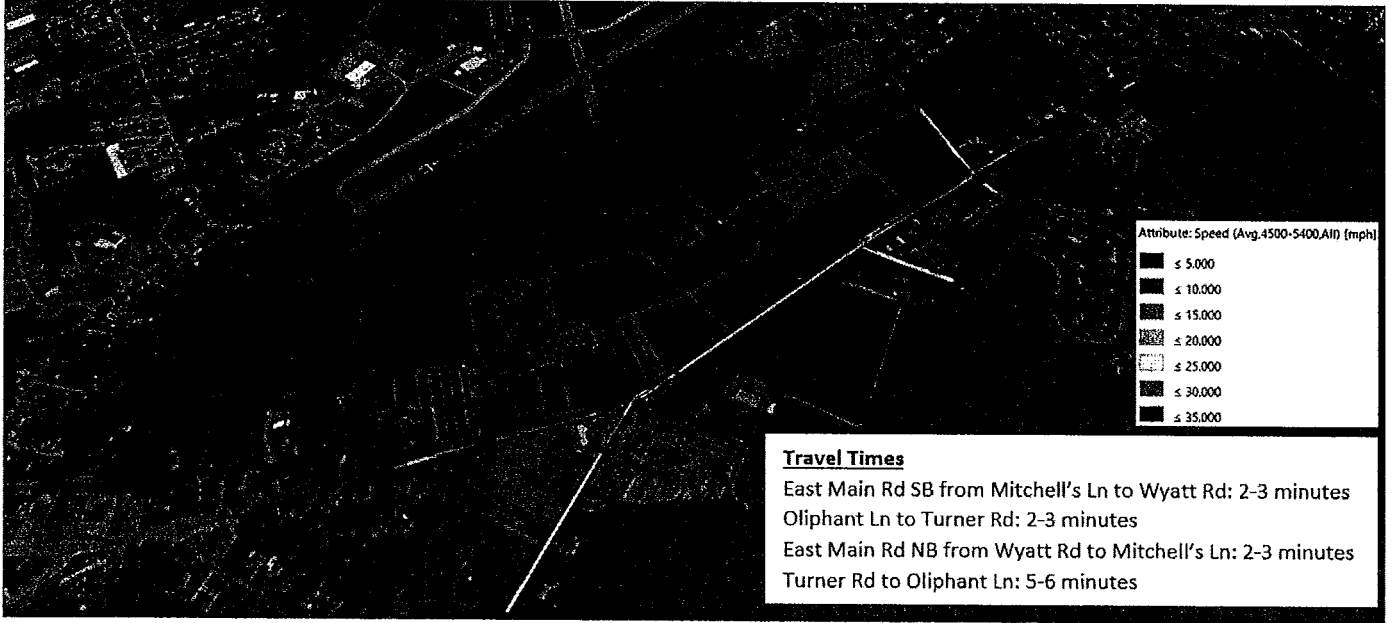
Cons:

- Added delay and congestion especially during the Summer peak season (Average. 20 MPH speed along the corridor and 10 MPH at lane reduction points)
- Very difficult to pull out of unsignalized side streets and driveway due to significantly less gaps in traffic.
- The vehicle queue is expected to spill back into Mitchell's Lane intersection in the southbound direction and to Wyatt Road in the northbound direction during the Summer peak season.

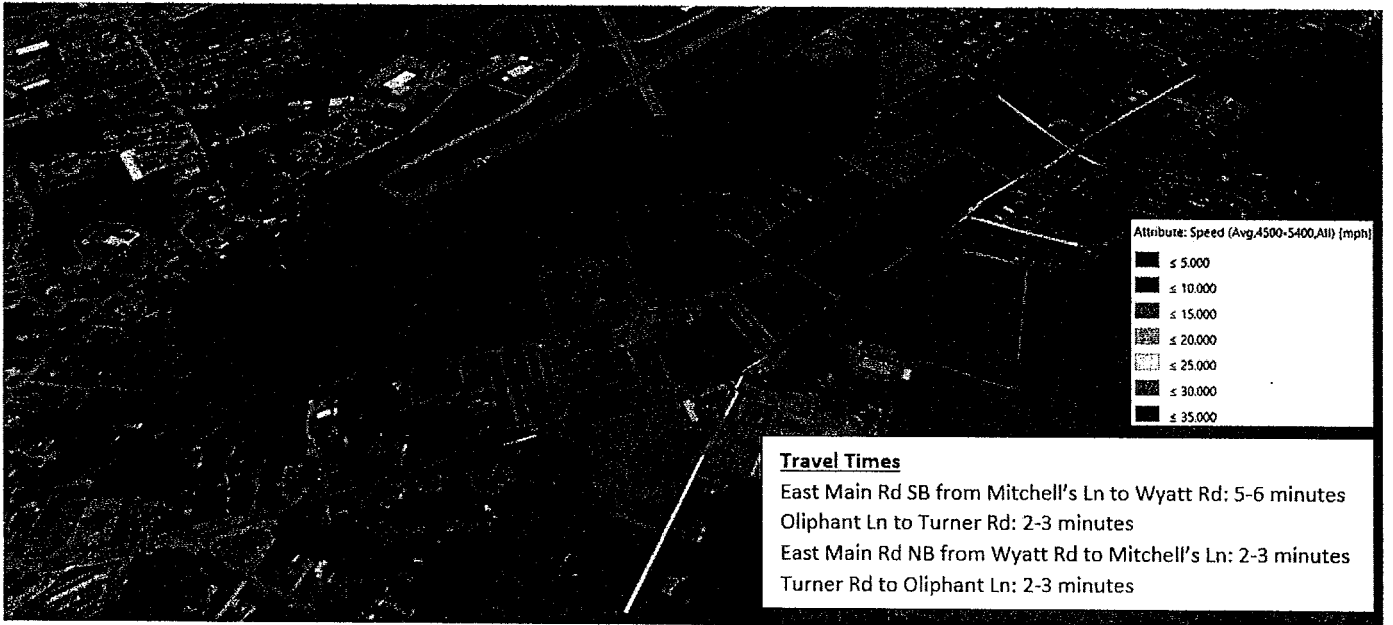
Projected AM Peak Hour Speed during the Spring



Projected PM Peak Hour Speed during the Spring



Projected AM Peak Hour Speed during the Summer



Projected PM Peak Hour Speed during the Summer

