

Date: August 2, 2023

202301839

To: Mayor and Members of City Council

From: Sheryl M. M. Long, City Manager

Subject: PEDESTRIAN SAFETY AND TRAFFIC CALMING – CENTER TURN LANE

Reference Document #202301269

The Council at its session on May 10, 2023, referred the following item for review and report.

MOTION, dated April 25, 2023, submitted by Councilmembers Jeffreys and Cramerding, WE MOVE, that the Administration report back to Council within ninety (90) days on the cost and feasibility of design alternatives that prevent drivers from using a shared, bi-directional, center turn lane as a passing lane. Specifically, the Administration should take into consideration improvements that include, but are not limited to, implementing rumble strips in the center turn lane, using reflective pylons or concrete to create "islands" in portions of the turn lane, or paving the center turn lane with alternative materials like cobble stone.

SUMMARY

The Department of Transportation and Engineering (DOTE) has several tools available to prevent drivers from using center turn lanes to pass slower drivers including concrete islands, cobblestone pavers, and plastic pylons. The primary challenges when implementing these tools are (1) the cost and (2) the spacing of driveways.

I. Options for prevention

Concrete islands are typically 6 inches high and are very effective at preventing passing in the turn lane. Concrete islands can also provide a safer refuge area for pedestrians crossing the street. Unfortunately, concrete islands are typically cost prohibitive for larger projects.

Cobblestone pavers are another option that DOTE has used on streets with commercial truck traffic, as these vehicles have a wider turning radius. The cobblestone islands can be constructed at a slightly lower height so that they deter most personal vehicles but are mountable by semi-trucks turning onto and off of the street. For example, DOTE is rightsizing Beekman Street this year and will use a combination of 6-inch concrete islands and 3-inch cobblestone islands to accommodate the significant semi-truck traffic generated by the businesses in this corridor.

When both funding and space are severely limited, plastic pylons may be the best or only alternative. However, since the pylons can be easily damaged by vehicles, longevity and ongoing maintenance costs are a concern.

DOTE does not recommend the use of rumble strips as previous pilot projects indicated that the resulting noise was not acceptable to adjacent residents.

II. Challenges for implementation

Apart from funding, the biggest challenge to utilizing the above-mentioned tools is the spacing of driveways. When a street has multiple closely spaced driveways, it can be nearly impossible to install anything in the center turn lane without limiting access to residents' driveways. For example, on Montana Avenue between Harrison Avenue and Farrell Drive, the driveways are spaced so close to one another that DOTE cannot install anything in the center turn lane without negatively impacting driveway access.

It should also be noted that in previous conversations between DOTE and the safety services departments, CFD has communicated that ambulances and fire engines utilize the center turn lane to pass stopped vehicles while responding to emergency situations.

In summary DOTE has many tools available to discourage drivers from using center turn lanes as travel lanes, and the department will continue using these tools when funding and space allow.

Type of obstruction	Challenges	Cost
Concrete island	Cost, limited use in commercial corridors	\$480 per foot for 10-foot wide island
Cobblestone island	Drivers may still opt to drive over them	\$1230 per foot for 10-foot wide island
Plastic pylons	Easily damaged and require frequent replacement	\$100 each

cc: John S. Brazina, Director, Transportation and Engineering