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Date	Ver.	Action By	Action	Result
2/16/2021	1	City Council	approved	Pass

CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:

Approve the citywide Traffic Calming Toolkit (Item 2 of 2)

DEPARTMENT: Transportation, Engineering and Development

SUBMITTED BY: Jennifer Loudon, Deputy Director and Michael Prousa, TED Project Manager

BOARD/COMMISSION REVIEW:

On February 4, 2021 the Transportation Advisory Board (TAB) recommended approval of the Traffic Calming Toolkit by a vote of 7-0.

BACKGROUND:

The City of Naperville receives numerous resident requests to investigate traffic concerns each year. Most resident requests pertain to the perceived speed and volume of vehicles traveling on their street and within their neighborhood.

Each request is addressed by the Transportation, Engineering, and Development (TED) Business Group, specifically the Transportation Team ("Team"). First, through field observations, the Team assesses the location to confirm that appropriate traffic controls are in place per federal standards. Traffic controls are all signs, markings and other devices that regulate, and warn/guide traffic on public roadways (e.g. stop sign, speed limit sign). In many cases, traffic data is then collected to quantify the speed and volume of vehicles at the requested location. Where data confirms a traffic issue is present, traffic calming measures may be applied to reduce vehicle speeds and volumes.

In 2019 the city contracted with a consultant, Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA), to conduct the Westside Neighborhood Traffic Study. Developing a Traffic Calming Toolkit that could be used throughout Naperville when addressing traffic requests was also included in the scope of work.

Staff currently uses a variety of sources when evaluating the concerns and deciding on the best course of action for a particular location. Establishing a citywide Traffic Calming Toolkit will enable staff to be more responsive and follow a consistent, data-driven approach when implementing traffic calming. The toolkit will also serve as a guide for residents who have concerns regarding traffic.

DISCUSSION:

Traffic calming can be a means to support the livability and vitality of residential neighborhoods through non-motorist safety, mobility, and comfort improvements. However, traffic control measures must be carefully selected for the specific location and identified traffic concern. This is critical in order to meet the intended goals while avoiding negative consequences such as shifting the problematic traffic to an adjacent roadway or otherwise impeding City operations.

The Traffic Calming Toolkit (Attachment 1) contains a variety of measures or “tools.” All of the tools are sanctioned by the Federal Highway Administration (FHWA), the Institute of Transportation Engineers (ITE), and the standards established by the federal Manual on Uniform Traffic Control Devices (MUTCD). The recommended measures were reviewed by TED, the Department of Public Works, the Naperville Fire Department and the Naperville Police Department to consider their suitability and possible impacts to operations.

The traffic calming measures in the toolkit are grouped into the following four levels of complexity:

1. Level 1 and Level 2 measures underscore the first two E’s of traffic engineering (Education and Enforcement) and represent non-physical measures, including signage and pavement markings.
2. Level 3 and Level 4 measures underscore the third and fourth E’s of traffic engineering (Engineering and Enhancement) and represent physical measures. Different levels of measures will allow for a phased approach to addressing data-supported issues.

Less impactful, and easier to implement, measures can be implemented first and monitored for their effect in addressing an issue. If proven ineffective, more extensive measures can then be implemented and monitored for effect.

When addressing traffic concerns in the future, staff will collect data and use the toolkit to identify applicable measures. As indicated on the table summarizing all measures, and in the detailed description for each measure, tools have varying applicability based on the identified traffic concern and location. Once implemented, all measures will be evaluated for effectiveness (the fifth “E” of traffic engineering).

For the reasons cited below, the following four items were purposely excluded from the Traffic Calming Toolkit:

1. Stop signs - Stop signs are traffic controls and are used for assigning right-of-way for vehicles and other roadway users. Stop signs are not used to control speeds and should only be installed at locations where collected data meets warrant criteria. Unwarranted stop signs have many negative consequences, including an increase in vehicle speeds between stop signs, a high incidence of intentional violations, and increased noise and pollution due to unnecessary breaking and accelerating.
2. Traffic circles - Traffic circles are raised islands located within an intersection that may reduce vehicle speeds. The City of Naperville constructed eight traffic circles for a pilot program in

2000. The traffic circles did not result in a significant reduction in speed and the City Council directed that no further traffic circle locations be considered.

3. Vertical measures - Vertical traffic calming measures, such as speed humps and speed cushions, are intended to reduce vehicle speeds. These measures were not included due to the possible impacts to city operations, including emergency response times, and the potential to divert the problematic traffic to adjacent roadways.
4. Crosswalks - Pedestrian crossing measures and enhancements help promote pedestrian mobility and safety but are not generally used as a measure to reduce vehicle speeds and volumes. City staff follows federal and state guidelines when evaluating pedestrian improvements.

Transportation Advisory Board Consideration and Public Input

At the March 5, 2020 TAB meeting, staff made a presentation on traffic calming and measures to be included in the toolkit. In August of 2020, staff invited public review of the Traffic Calming Toolkit by publishing the draft document on the City of Naperville website. Notice of the public review period was made through the *Naperville Connected* resident newsletter and the City of Naperville social media channels. Most resident responses were in relation to specific concerns at specific locations. Some responses pertained to the current thresholds that the City uses for speeds and volumes, the need for transparency, and more information needed regarding City processes pertaining to speed and volume studies. These responses can be seen in Attachment 2.

The final toolkit document and summary of public input was presented to TAB on February 5, 2021. No additional comments were made by members of the public. TAB recommended approval of the Traffic Calming Toolkit by a vote of 7-0.

FISCAL IMPACT:

There is no cost associated with approval of the Traffic Calming Toolkit. Implementation of simple signage and striping traffic calming measures will be funded through the TED operating budget. Implementation of more advanced measures that involve engineered and constructed improvements will be programmed through the Capital Improvement Program.